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Depression at the Intersection of Race/Ethnicity, Sexual Orientation, and Income

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Abstract

The current study uses an intersectional framework to examine subgroup differences in the prevalence of depression among a community sample of predominantly low-income, racial/ethnic and sexual minority adults. Between May 2017-June 2018, participants (N=1753) were recruited from and screened for depression in community organizations that predominantly serve sexual minority clients based in Los Angeles, California and New Orleans, Louisiana. Twenty-six percent of people screened for study eligibility met criteria for depression (Patient Health Questionnaire-8 ≥ 10). As is true in higher-resourced populations, bisexual (Odds Ratio; OR: 1.50; 95% Confidence Interval; CI: 1.08, 2.09) and queer/questioning (OR: 1.86; 95% CI: 1.08, 3.19) individuals were more likely to be depressed than heterosexual and lesbian/ gay individuals.

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These differences remained even when accounting for income. No differences in depression were observed between lesbian/gay and heterosexual adults. In terms of racial differences, bisexual Black (OR: .47; 95% CI: 0.21, 1.04) and Hispanic (OR: .51; 95% CI: 0.23, 1.12) adults were marginally less likely to be depressed than bisexual White adults. No racial differences emerged across other sexual orientations. Differences across some sexual minority subgroups may be race-specific, suggesting that intersectional frameworks may be the best way to understand how multiple marginalization affects different subgroups.

Keywords

Bisexuality; depression; intersectionality; racial/ ethnic minorities; low-income

Depressive symptoms and disorders are common health conditions. A 2018 study of depression estimated that from 2013 to 2016, 8.1% of Americans ages 20 and over had depression in a given two-week period (Brody et al., 2018). Sexual minority (SM) adults, including those who identify as lesbian, gay, bisexual, queer or questioning, are more likely than heterosexual people to be depressed (Chakraborty et al., 2011; Grant et al., 2014), with some studies suggesting rates are up to two times higher among SM people than their heterosexual counterparts (King et al., 2008). Prevailing theories about health disparities among SM people rely on explanations about how identity and social status contribute risk and resilience towards health through exposure to marginalization and community support. For example, the minority stress theory (MST; Meyer, 2003) proposes that belonging to a minority group exposes people to additional social stressors such as prejudice and stigma, which in turn leads to greater mental health problems. Numerous studies have provided support for components of MST among SM samples, but it is unclear how these theories might apply to multiple minority groups like low-income, SM People of Color (SM-POC).

Low-income groups are underrepresented in the general LGB literature, yet poverty and inequitable income are associated with mental illness (Patel et al., 2018; Sareen et al., 2011). Additionally, several SM subgroups experience dual or multiple discrimination, due to their bisexual or racial minority identities (Galupo et al., 2019). Theoretical work suggests that bisexual and SM-POCs may experience heightened risk for depression due to these additional discriminatory experiences, but few empirical studies have examined these subgroup differences in depression rates with low-income samples.

Studies that disaggregate sexual minority identities show that bisexual people experience the greatest risk of depression (Plöderl & Tremblay, 2015; Ross et al., 2018). A 2018 meta-analysis suggested that bisexual individuals are 40% more likely to exhibit current depression than lesbian and gay (LG), and 138% more likely than heterosexual adults (Ross et al., 2018). MST may help explain heightened rates of depression among bisexual people, given that they experience dual discrimination, from both heterosexual and LG communities (Ross et al., 2018). According to MST, minority status also exposes people to potential resilience factors, such as belonging to a minority community, which may provide coping strategies that buffer the impact of minority stress on mental health (McConnell et al., 2018; Meyer, 2003). However, bisexual groups may not have the same access to social support

from the SM community as do LG adults. In combination, these minority stressors and limited access to coping resources may contribute to heightened rates of depression among bisexual people.

While it is well established that rates of depression are higher among bisexual than LG groups, few studies appear to have examined whether this remains true among low-income samples. A prevailing theory regarding bisexual groups is that they experience heightened rates of depression due to simultaneous marginalization from heterosexual and LG groups (Ross et al., 2018), but it is possible these differences may be better attributed to income. Bisexual groups tend to have lower incomes than LG groups (Ross et al., 2018). Prior work has shown that bisexual vs. LG differences in physical health are largely accounted for by socioeconomic status (Gorman et al., 2015), suggesting that income differences might also explain subgroup differences in depression. While few studies have examined the role of income differences in explaining depression disparities within SM subgroups, even less attention has been paid to differences within low-income SMs. It is unclear whether bisexual disparities in depression also exist among low-income SM populations. Prior studies documenting this subgroup difference have primarily focused on samples from diverse socioeconomic backgrounds, without explicit focus on low-income people who are at overall higher risk for depression. Furthermore, it is unclear to what extent these differences may be driven by income disparities within low-income SM subgroups. This is important because people who are low-income can experience both income-related discrimination and stressors, while experiencing diminished access to resources that could bolster coping (Brondolo et al., 2017; Simons et al., 2013). Thus, income-related stressors may compound on bisexual minority stress and continue to yield higher rates of depression among low-income bisexual vs. LG groups.

Like income, race has also been understudied in the SM mental health literature (Goldbach et al., 2014). Two existing approaches towards understanding SM-POC depression are reviewed (Grollman, 2014). First, theories of added burden extend MST towards multiple minority groups, like SM-POC, by suggesting that each minority status confers incremental exposure to minority stress, and therefore greater mental health problems (Cyrus, 2017). Consistent with this idea, initial work shows that multiple discrimination (e.g., heterosexism and racism) is associated with greater depression than is one-dimensional discrimination (e.g., only heterosexism; McConnell et al., 2018; Vargas et al., 2020). This indicates that since SM-POC experience multiple types of discrimination, they may exhibit greater rates of depression compared to White SM people.

Intersectionality frameworks suggest a second approach to understanding how subgroups are affected by marginalization. Intersectionality scholars warn against assuming that minority statuses can be separated and quantified to contribute equally to stress and resilience (Bowleg, 2008; Browne & Misra, 2003). Given that minority status and experiences are directly impacted by historical and structural oppression, subgroups may be differentially affected by factors that contribute risk and resilience. Thus, it is important to examine subgroup differences, since the relationship between minority statuses, minority stress, and mental health outcomes may vary by subgroup. The model suggests that overall conclusions about large categories that include multiple subgroups are not appropriate

and therefore does not provide any specific hypotheses about how SM-POC may be affected by depression. Therefore, intersectionality frameworks do not necessarily contradict expectations made by theories of added burden, but propose an altogether different approach towards understanding disparities.

Some initial empirical work has examined sexual orientation (SO) differences by racial subgroups. Several studies have shown that SM White adults have higher rates of depression than SM Black individuals (Bostwick et al., 2019; Jeong et al., 2016; Meyer et al., 2008), but findings regarding depression differences among SM White and SM Latinx are mixed. Some studies suggest rates between the two groups are similar (Bostwick et al., 2019; Meyer et al., 2008) and others have yielded higher rates of depression among White people than Latinx people (Jeong et al., 2016). The findings regarding Black people are consistent with findings from the general population, which show lower rates of depression among Black vs. White people (Bailey et al., 2019; Dunlop et al., 2003). Latinx individuals similarly tend to have lower rates of depression than White people, although this finding is complicated by other factors including generational immigration status (Budhwani et al., 2015; Vilsaint et al., 2019). Overall, the racial differences documented in the studies examining depression among SM-POC provide limited support for added burden of multiple minority statuses. The existing research suggests that intersectional subgroup differences based on race may mirror patterns in the general population, with lower rates of depression among SM Black and Hispanic adults in comparison to SM White adults. Therefore, current evidence does not appear to support theories of added burden.

Despite that a small number of studies have examined racial group differences among SM adults, very few have explored subgroup differences based on SO. The existing research appears to group all sexual minority orientations together, providing limited information regarding racial group differences based on SO subgroups. Yet, differences in rates of depression exist within sexual minority subgroups. Further, few studies have examined racial subgroup differences among low-income SM samples. The lack of attention to this issue is likely due to the low power in existing studies relying on small sample sizes. To extend the intersectional focus of this body of literature, more work is needed using large community datasets that allows careful comparisons of depression between race and SO subgroups.

In sum, more research is needed to understand how depression is patterned across intersectional groups of diverse ethnicities and SO, particularly among low-income populations. Existing studies have largely relied on small samples, which limit appropriate subgroup comparisons based on SO and race, and very little is known about how income contributes to subgroup differences among low-income and ethnically diverse populations. Additionally, studies examining racial differences among SM adults generally compare sexual minority to heterosexual adults, with limited attention to subgroups based on SO. This may be important as existing evidence shows that bisexual adults tend to show higher rates of depression, but do not examine how racial subgroup differences may factor into these patterns.

The Resilience Against Depression Disparities (RADD) study is a community-partnered participatory research study that assessed the rates of depression among predominantly

low-income, racial/ ethnic SM adults. The current study used RADD data with two aims: 1) examine rates of depression by SO, while adjusting for differences in income; 2) examine racial differences in rates of depression within SO subgroups, while adjusting for differences in income. In terms of the first aim, the study hypothesized that findings would mirror the general population, with the highest rates of depression among bisexual and queer/questioning groups, followed by LG adults. Given the intersectional stress associated with being LGB and low-income, the study hypothesized that both SO and income would simultaneously be predictors of depression. In other words, income would not completely account for LG-B differences. Second, the study hypothesized that racial subgroup differences across all SOs would mirror racial patterns in the general population, with White adults yielding the highest rates of depression in comparison to Black and Latinx persons. Similar to the general population, lower income was expected to predict higher depression. However, it was hypothesized that income would not completely account for racial differences.

Method

Procedure and Sample

Between May 2017 and June 2018, 2080 clients were approached and 1787 English- or Spanish- speaking adults (18 years and above) provided written consent to participate in a brief screening to determine eligibility for the for the RADD clinical trial ([NCT02986126](#)). Recruitment strategy and study procedures are described elsewhere (Vargas et al., 2019). Of 1787 who agreed to participate, 1753 completed the screening. The RADD study was an intervention using community health workers to deliver cognitive behavioral therapy skills to improve depressive symptoms among low-income, sexual and gender minority (SGM) and racial/ethnic minority adults. Low income status was determined relying on regional guidelines that consider the cost of living in the area and stipulate low-income household salaries by the number of people within the home (U.S. Department of Housing and Urban Development, 2021). The current study focuses only on differences in depression in our sample based on self-reported sexual orientation.

For the RADD study, we did not create any inclusion/exclusion criteria around self-reported SO, gender identity, or racial/ ethnic identity. We did this to allow participants who may not be comfortable identifying publicly as SGM to self-select into the study and not have to publicly disclose their status during the study screening. To ensure that we enrolled SGM individuals, we purposely recruited from 26 organizations that serve predominantly low-income, racial/ethnic SGM adults. Organizations were identified by asking community partners where members of the SGM community sought support for emotional distress. Given that our community partners emphasized that not all participants would identify as LGBTQ, not all organizations explicitly or exclusively served SGM or racial/ethnic minority populations. These included healthcare organizations (primary care, mental health, and alcohol/ substance abuse programs), community-based agencies (faith-based, homeless-serving, and those providing advocacy or social services), and other community-trusted locations (LGBTQ-friendly bars, gyms) in Los Angeles, CA and New Orleans, LA. The

RADD study was reviewed and approved by the Institutional Review Board at UCLA with reliance agreements and local reviews by partnering institutions.

Measures

Demographics—During screening, participants were asked to report the following: sex assigned at birth, current gender identity, US-born status, race/ ethnicity (re-coded into Black/ African American, Hispanic, White, and Other), SO (heterosexual/ straight, lesbian/gay/homosexual, bisexual, or queer/questioning), language spoken, highest level of education, current marital status, number of children, current health insurance coverage, employment status, current living situation, income related to work, number of people supported by income, current assistance from government program, general self-rated health, and past diagnosis of schizophrenia.

Depressive symptoms—Depressive symptoms were measured using the 8-item Patient Health Questionnaire (PHQ-8), which has been validated and shown good reliability among the general population (Kroenke et al., 2009) and some SM-POC subgroups (Anibal González-Rivera, 2019; Nguyen et al., 2016). Participants used a Likert-type scale to report their symptoms of depression over the past two weeks. Those who scored a 10 or higher were considered to be likely depressed (referred to as depressed/ depression), as indicated by clinical cut-off scores (Kroenke et al., 2009).

Analysis

We conducted univariate analyses to describe the sample and bivariate analyses to compare self-reported SO (heterosexual/ straight, lesbian/gay/homosexual, bisexual, or queer/questioning) for social demographics factors and clinical characteristics. We present means with standard deviation for continuous variables and percentage for categorical variables. Chi-square tests were used to analyze differences in categorical variables, and one-way analysis of variance for continuous variables. Logistic regressions were utilized to analyze the impact of SO on depression for overall sample controlling for income. Racial effects (Hispanic, Black/ African American, White/ Caucasian) on depression were stratified by SO group using standard logistic regressions, controlling for income. Sensitivity analyses were conducted using exact logistic regressions, and produced similar results (not shown below). A stratified approach was selected rather than interaction analyses due to issues concerning power and need for a larger sample size. For missing data, we used an extended hot-deck multiple imputation based on the predictive mean matching method (Bell & McCaffey, 2002; Little, 1988). We used five imputed data sets, averaged results and adjusted standard errors for uncertainty due to imputation (Rubin, 1987; Schafer, 1997). The rates of missing data among the 21 variables we collected were: <5% (14 variables), <10% (3 variables), 18–27% (4 variables). Analyses were conducted using SAS software version 9.4.

Results

Participants' demographic characteristics are reported in Table 1. Results are provided for the overall sample and by SO. Most participants identified as gay, lesbian, or homosexual

(LG; 43.0%) or straight/ heterosexual (40.8%), with the remainder identifying as bisexual (12.5%) or queer/questioning (3.7%). Participants in our sample were on average 40.7 years of age. A majority (73.4%) were assigned male sex at birth, and identified as men (68.7%), while 25.5% identified as women, 1.5% as transgender men, 2.1% as transgender women, and 2.2% are genderqueer or gender non-conforming. Participants identified as Hispanic (39.3%), Black or African American (27.8%), White/ Caucasian (25.2%), or another race (7.7%). As anticipated, participants in our sample were predominantly low-income. Variability was reported across income, with many living below the federal poverty line and 35.2% reporting an annual household income of \$10,000 or less. The mean number of people supported by income in the overall sample was 1.8 people (SD = 1.4). Participants reported a range of levels of education, with approximately 19.0% completing less than a high school degree. Nearly half were unemployed (28.2% not looking for work, 17.9% looking for work). Half of participants lived in a rented unit (52.7%). A majority (60.6%) were single and never married. Approximately a third (32.5%) described their health as good. Finally, twenty-six percent of participants in our total sample met criteria for current depression (PHQ-8 = 10).

We examined whether differences across demographics existed based on SO (Table 1). Differences emerged in most demographic characteristics, except for language, health insurance coverage, and general self-rated health. Overall, 26% of heterosexual- and 22.2% of LG people were depressed, whereas 34.6% of bisexual- and 39.4% of queer/questioning-identifying people were depressed. Our results showed that even among a low-income sample, income differences emerged across SO groups. Given our conceptual interest in income, we included this in future models.

We then examined rates of depression by SO in our low-income sample (Table 2). We first compared rates of depression across SO groups in our overall sample. We then compared rates of depression by running separate models with straight/heterosexual adults (Model 1), and LG individuals (Model 2) as the reference group. Results from Model 1 show that in comparison to straight/ heterosexual adults, bisexual individuals were 50% (Odds Ratio; OR=1.50, 95% Confidence Interval; CI 1.08–2.09) and queer/questioning adults were 86% (OR=1.86, 95% CI 1.08–3.19) more likely to be depressed. There were no significant differences between heterosexual and LG adults. In Model 2, we found that in comparison to LG adults, bisexual individuals were 89% (OR=1.86, 95% CI 1.33–2.59) and queer/questioning were 129% (OR=2.29, 95% CI 1.33–3.93) more likely to be depressed. These findings indicate that bisexual and queer/questioning individuals exhibited heightened rates of depression in comparison to both heterosexual/ straight and LG individuals, but no differences between straight/ heterosexual and LG persons.

Since our overall bivariate findings showed that people with lower income were more likely to be depressed, we examined whether differences in rates of depression across SM participants were accounted for by income. When controlling for income, bisexual and queer/questioning individuals exhibited greater odds of depression when compared to straight/heterosexual (Model 3; bisexual: OR=1.59, 95% CI 1.14–2.21; queer: OR=2.04, 95% CI 1.17–3.55) and LG (Model 4; bisexual: OR=1.72, 95% CI 1.22–2.42; queer: OR=2.21, 95% CI 1.27–3.85) adults. These findings suggest that even when accounting

for differences in income among a low-income sample, bisexual and queer/questioning individuals are at heightened risk for depression.

Next, we examined whether racial differences existed in depression rates within SO subgroups. To do this, we compared differences based on race for each SO group (Table 3). Among heterosexual participants, we found no differences in odds of depression among Hispanic or Black participants in comparison to White participants (Model 1). These findings remained even when accounting for income, which was a significant predictor of depression (Model 2). A similar finding emerged among LG (Models 3 and 4), and queer/questioning individuals (Models 7 and 8). However, a marginal racial difference was found among bisexual participants. When controlling for income, bisexual Black participants were 53% (OR=0.47, 95% CI 0.21–1.04) and bisexual Hispanic participants were 49% (OR=0.51, 95% CI 0.23–1.12) less likely to be depressed than bisexual White participants (Model 6). This indicates that, in comparison to other bisexual racial groups and when accounting for differences in income, bisexual White adults may be at greatest risk for depression.

Discussion

Our study compared the rates of depression based on SO and race/ethnicity among a low-income sample of adults. Twenty-six percent of participants met criteria for likely current depression, with rates by sexual orientation subgroups ranging from 22.2%–39.4%. These are vastly higher rates than the 8.6–9.2% prevalence rate of current depression in the general population and 11–15.8% among low-income populations. Furthermore, our results showed that even within our low-income sample, those with lower income were more likely to be depressed. We found that overall, there were no differences in depression among heterosexual and LG participants. However, bisexual and queer participants had higher rates of depression when compared to heterosexual and LG participants. These findings remained when we accounted for differences in income. This suggests that in our low-income sample, elevated rates of depression among bisexual participants in comparison to LG, or heterosexual participants cannot be attributed to differences in income. Further, we found initial evidence suggesting that bisexual ethnic/racial minority adults may be protected against depression, in comparison to bisexual White individuals.

Ours is the first study we know of that has examined rates of current depression in a community sample of low-income, racial/ethnic and sexual and gender minority subgroups. Over a quarter of our participants met criteria for likely depression, a higher proportion than those found in prior studies of low-income samples. We screened participants in settings where they were likely to be seeking support, which possibly contributed to the heightened rates of depression. A past study conducted by our research team screened low-income ethnic/racial minority individuals for depression in similar kinds of organizations, and yielded comparable rates (Miranda et al., 2013). This prior study did not assess SO, so it is impossible to compare the two study samples. Nevertheless, the high rate of depression in our sample may reflect that our participants overall were likely very socially marginalized and in settings where help-seeking populations are over-represented.

Our results indicate that even among a low-income sample, bisexual people exhibit higher rates of depression than LG and heterosexual adults, consistent with previous findings (Ross et al., 2018). These findings are maintained when adjusting for differences in income. Collectively, study findings indicate that income differences alone do not account for the bisexual depression disparity. Some work has suggested that heightened rates of depression among bisexual and queer people may be related to compounded discrimination and marginalization by both heterosexual and LG communities (Ross et al., 2018). In a current low-income sample, it is possible that bisexual people's experience with dual discrimination from LG and heterosexual communities (McLaren & Castillo, 2021) is compounded by income-related stressors (Brondolo et al., 2017; Simons et al., 2013). Future work should examine mechanisms contributing to this disparity, including the role of minority stressors such as discrimination and internalized stigma.

Our data suggests that among a low-income, racially/ethnically diverse sample, LG individuals were not more likely to be depressed than heterosexual persons. In the general population, it is well documented that LG adults have higher rates of depression (Ross et al., 2018). It is not clear why this was not the case in our sample of racially/ethnically diverse adults. One possibility may be that racial/ethnic minority status may be protective and confer resilience towards mental health for our majority ethnic minority sample. This interpretation is consistent with literature of the general population showing that racial/ethnic minority persons may have lower rates of depression than White individuals, but experience unmet needs due to poorer access to quality care (Miranda et al., 2008). Some scholars have suggested that social support around ethnic identity may be partly contributing to improved mental health (Brondolo et al., 2009; Pascoe & Smart Richman, 2009; Smith & Silva, 2011). Therefore, it is possible that LG individuals in our sample may access and generalize coping resources, including community support, from both their ethnic identity and LG identity. These resilience factors may contribute to similar rates of depression among LG than heterosexual individuals in our sample. However, it is also possible our results are impacted by the over-representation of LG individuals, and comparisons with the general population must be made cautiously. Future studies should further examine this issue more closely.

Although bisexual people and queer/questioning individuals in our sample did have overall heightened rates of depression, our follow-up analyses suggest this finding might be driven by higher rates of depression among White participants. Among our low-income sample, bisexual Black and Hispanic adults had marginally lower odds of depression than bisexual White adults. It is possible that among bisexual adults, some may experience resilience against depression by using their perspective as a racial minority to cope with multiple kinds of discrimination and marginalization (Galupo et al., 2019). To establish whether the bisexual depression disparity finding is unique to bisexual White people, more studies examining racial differences among bisexual subgroups are needed. Future research with larger representative samples should examine how rates of depression are patterned among ethnically diverse bisexual individuals.

Overall, our results show that differences in rates of depression may be more subtle and nuanced across SO subgroups than previously thought, particularly for low-income and

ethnically diverse populations. Consistent with prior research, the current study did not find support for theories of added burden. This suggests that applying an intersectional framework to examine the health status of subgroups separately is necessary to understand how social stress is patterned and buffered against (Bowleg, 2012). Our results may also help refine existing theories, such as the minority stress theory. While the minority stress theory suggests that SM persons experience higher rates of mental health problems like depression, our data suggests that among a low-income, racially/ethnically diverse sample, LG individuals are not more likely to be depressed than heterosexuals. Our findings underscore the importance of including racially/ethnically and socioeconomically diverse populations in research, and studying intersectional subgroups to better understand the limits of existing models with more diverse samples.

Some study limitations should be noted. First, other characteristics which we did not capture in the screening stage of our study may contribute to these results as identity may be incongruous with behavior. For example, some participants who identified as heterosexual may have sex with people of the same sex or gender. In our baseline study assessment, we discovered that 66% participants reported at least some same-sex sexual behavior, despite identifying as straight. Since we did not assess sexual behavior in the screener stage, it is not possible to know how differences in self-identification might impact our results. These factors may have contributed to the nonsignificant differences between straight and LG individuals in our sample.

Once we enrolled depressed participants into our study, we also discovered at baseline that 46% of 225 participants were living with HIV. HIV status may confer additional marginalization throughout our sample and increase risk for depression (Rabkin, 2008), which could influence our results. However, we did not assess for HIV status during our study screening stage, so it is not possible to examine this issue in our data. Similarly, gender, age, and relationship status may have played a role in our findings. Prior studies on racial/ethnic SM adults have primarily focused on women (Bostwick et al., 2019), but since our study was comprised mainly of cisgender men, it is unclear how past findings relate to ours. Further, our results may be influenced by this gender distribution. However, preliminary analyses indicated that there were no significant differences in depression rates based on gender identity in our sample (results available upon request). For this reason, we decided to compare depression rates based on SO and race in our overall sample. Larger sample sizes are needed to be able to examine how gender may contribute to within and across race/ ethnicity and SO subgroup differences in depression. Additionally, our study relied on a community sample recruited from LGBTQ-friendly organizations. Participants were currently seeking help. It is unclear how depression affects racial/ethnic sexual minority individuals who are not connected to or seeking help from any LGBT-affirming organizations. Furthermore, comparing the overall prevalence of depression in our sample with the general population may not be appropriate due to participants' diverse backgrounds and oversampled SM status. While this comparison helps to highlight the high rates of depression in the current sample, it is not possible to generalize the overall rate of depression in the sample due to the heterogeneity of participants' backgrounds. Finally, our study relied on a self-reported measure of depressive symptoms, which indicated likely depression. Clinician assessments are needed to corroborate a depression diagnosis.

Conclusion and Future Directions

Altogether, our results provide initial evidence of how depression affects a vastly understudied and multiply marginalized population. We use an intersectional lens to examine subgroup differences in our sample, and ultimately provide initial evidence to refine SM mental health knowledge and theories. Additionally, this work helps us understand how marginalization may affect mental health. Our findings suggest that multiply marginalized groups may not all be affected in the same way. Different coping responses may be employed by individuals of diverse races and SOs. Studies should continue to examine how subgroups are affected by depression, and future work should explore potential risk and protective mechanisms contributing to these subgroup patterns of depression. Studies should continue to explore how SM-POC employ coping strategies to manage multiple discrimination. These findings could help tailor interventions that address how to cope with marginalization and buffer against depression.

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Table 1.

Participant Characteristics for Overall Sample and by Sexual Orientation

Variables	Overall (N=1753)	Straight or heterosexual (N=716)	Lesbian, gay, or homosexual (N=754)	Bisexual (N=219)	Queer or questioning (N=64)
Age, mean (SD) ***	40.7 (13.6)	40.7 (13.8)	41.6 (13.1)	39.6 (13.9)	33.1 (12.5)
Sex assigned at birth ***					
Male	73.4	56.0	91.4	77.1	42.5
Female	26.6	44.0	8.6	22.9	57.5
Gender ***					
Man	68.7	52.3	87.2	71.5	23.9
Women	25.5	44.3	7.8	23.4	30.4
Transgender man / transgender male / female-to-male	1.5	1.1	1.0	0.5	16.5
Transgender woman / transgender female / male-to-female	2.1	2.1	2.0	1.9	4.3
Genderqueer / Gender non-conforming	2.2	0.1	2.0	2.7	24.8
Non-US-Born *	25.8	22.5	29.8	24.5	19.3
Race/ethnicity **					
Hispanic	39.3	39.9	40.9	34.0	32.0
Black or African American	27.8	31.9	23.3	30.0	26.7
White/Caucasian	25.2	20.6	28.6	27.2	30.4
Other	7.7	7.7	7.2	8.8	10.9
Language most comfortable speaking					
English	83.2	84.8	81.6	82.4	86.0
Spanish	16.7	15.2	18.2	17.6	14.0
Both	0.1	0.0	0.3	0.0	0.0
Education ***					
Less than high school	19.0	26.1	13.0	17.9	13.4
High school graduate	21.1	26.8	16.7	20.2	12.7
Some college	29.2	24.8	33.2	30.8	26.4
College or higher	30.7	22.3	37.1	31.1	47.5
Current marital status ***					

Variables	Overall (N=1753)	Straight or heterosexual (N=716)	Lesbian, gay, or homosexual (N=754)	Bisexual (N=219)	Queer or questioning (N=64)
Now married	15.0	17.9	13.5	13.0	6.5
Widowed	3.3	3.9	2.4	4.1	3.4
Divorced or separated	11.4	17.0	5.5	15.0	6.5
Single, Never married	60.6	52.4	67.7	60.6	67.7
Living with someone as though married	9.7	8.8	10.8	7.3	15.8
Number of children in family ^{***}					
0	79.1	65.8	90.2	83.1	83.5
1	9.9	14.9	5.4	10.3	6.2
2 or more	11.0	19.3	4.5	6.6	10.2
Current health insurance coverage					
Yes	83.2	85.1	81.0	84.5	83.5
No	16.8	14.9	19.0	15.5	16.5
Working status ^{***}					
Working full time	35.4	28.5	42.2	30.9	47.5
Working part time	18.5	15.7	18.4	25.0	29.2
Not working but in labor force	17.9	20.0	16.9	17.3	9.0
Not working and not in labor force	28.2	35.8	22.5	26.8	14.3
Living situation ^{***}					
Own a home or apartment	10.3	8.2	12.6	10.1	6.8
Rent a home or apartment	52.7	50.4	56.5	45.1	59.3
Living with friends or family	20.4	19.2	20.5	23.2	23.9
Living in a supported housing program	8.0	11.3	5.3	7.6	3.4
Homeless	7.9	10.2	4.9	11.2	6.5
Living in an emergency shelter	0.7	0.7	0.3	2.7	0.0
Homeless or living in an emergency shelter ^{***}					
Yes	8.6	10.9	5.1	14.0	6.5
No	91.4	89.1	94.9	86.0	93.5
Work related income ^{***}					
\$0-\$10,000	35.2	44.3	27.2	35.8	26.7

Variables	Overall (N=1753)	Straight or heterosexual (N=716)	Lesbian, gay, or homosexual (N=754)	Bisexual (N=219)	Queer or questioning (N=64)
\$10,001-\$20,000	19.1	18.5	18.0	21.9	28.0
\$20,001-\$30,000	16.3	13.7	19.2	14.7	16.8
\$30,001-\$40,000	7.3	7.9	6.7	7.8	4.7
\$40,001-\$50,000	7.6	5.1	9.1	9.0	12.7
More than \$50,000	14.5	10.5	19.7	10.8	11.2
Number of people supported by income, mean (SD)	1.8 (1.4)	2.0 (1.7)	1.6 (1.1)	1.7 (1.2)	1.7 (1.2)
Receiving assistance from government programs in past year					
Yes	46.4	58.0	36.6	44.7	37.9
No	53.6	42.0	63.4	55.3	62.1
General health					
Excellent	15.9	16.5	16.5	14.8	6.8
Very good	26.7	24.8	28.2	26.7	30.4
Good	32.5	30.7	34.0	33.3	31.4
Fair	20.4	22.4	18.1	20.6	24.8
Poor	4.5	5.6	3.2	4.7	6.5
Ever diagnosed with schizophrenia					
Yes	8.8	12.0	5.5	10.7	4.7
No	91.2	88.0	94.5	89.3	95.3
Depressed (PHQ-8 10)	25.9	26.0	22.2	34.6	39.4

Note. Statistical comparisons were performed by using chi-square and ANOVA between sexual orientation groups. Data relied on multiple imputation at the item level, weighted to characteristics of eligible sample. Results are % unless otherwise specified.

* p<.05
 ** p<.01
 *** p<.001

Table 2. Models reporting clinical depression by sexual orientation in overall sample, controlling for income

Characteristic	Model 1	Model 2	Model 3	Model 4
Sexual orientation				
Straight/heterosexual	Reference	1.23(0.96–1.58)	Reference	1.08 (.84–1.39)
Lesbian, gay, or homosexual	0.81 (0.63–1.04)	Reference	0.92 (0.72–1.19)	Reference
Bisexual	1.50 (1.08–2.09) *	1.86 (1.33–2.59) ***	1.59 (1.14–2.21) **	1.72 (1.22–2.42) **
Queer/ questioning	1.86 (1.08–3.19) *	2.29 (1.33–3.93) **	2.04 (1.17–3.55) *	2.21 (1.27–3.85) *
Income	-	-	0.82 (0.76–.88) ***	0.82 (0.76–.88) ***

Note. All models show odds ratios (95% confidence intervals)

- * p<.05
- ** p<.01
- *** p<.001

Stratified multivariate models reporting clinical depression among race by sexual orientation

Table 3.

Characteristic	Straight/heterosexual only		Lesbian, gay, or homosexual only		Bisexual only		Queer/questioning only	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Race								
Hispanic	0.83 (0.52–1.32)	0.75 (0.46–1.21)	1.03 (0.68–1.58)	0.83 (0.53–1.29)	0.62 (0.30–1.29)	0.51 (0.23–1.12) [^]	1.00 (0.26–3.91)	0.63 (0.14–2.84)
Black/ African American	0.99 (0.62–1.59)	0.89 (0.55–1.45)	0.96 (0.59–1.57)	0.84 (0.51–1.39)	0.55 (0.26–1.17)	0.47 (0.21–1.04) ⁺	1.98 (0.51–7.68)	1.36 (0.31–5.95)
White/ Caucasian	Reference	Reference	Reference	Reference	Reference	Reference	Reference	Reference
Income	-	0.82 (0.72-.093) ^{**}	-	0.82 (0.74–0.92) ^{***}	-	0.76 (0.55–1.03) [^]	-	0.71 (0.48–1.05) [^]

Note. All models show odds ratios (95% confidence intervals)

- [^] p<.10
- ⁺ p=.06
- **** p<.01
- ***** p<.001