



# HHS Public Access

Author manuscript

*Cultur Divers Ethnic Minor Psychol.* Author manuscript; available in PMC 2016 July 01.

Published in final edited form as:

*Cultur Divers Ethnic Minor Psychol.* 2015 July ; 21(3): 380–390. doi:10.1037/a0038680.

## Racial/ethnic differences in identity and mental health outcomes among young sexual minority women

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### Abstract

Previous research suggests that sexual minorities are at greater risk for trauma exposure, mental health problems, and substance use. To date, few studies have examined racial/ethnic differences among sexual minorities in relation to health-related behaviors and outcomes. Furthermore, studies of racial/ethnic differences among young adult sexual minority women (SMW) are virtually non-existent. The current study adds to the previous literature by exploring differences in trauma exposure, sexual identity, mental health, and substance use in a non-probability national sample of young adult SMW. A total of 967 self-identified lesbian and bisexual women were recruited via the internet using social networking sites to participate in a larger longitudinal study on young women's health behaviors. The present study included 730 (76%) White, 108 (10%) African American, 91 (9%) Latina, and 38 (4%) Asian women ages 18 to 25. Results revealed differences in socioeconomic variables, degree of outness to family, childhood sexual assault, and forcible rape, but not overall lifetime trauma exposure. Among mental health and health-related behavior variables, few differences between groups emerged. Our findings indicate that both researchers and clinicians should turn their attention to processes of resilience among young SMW, particularly young SMW of color.

### Keywords

Race; ethnicity; young adults; lesbian; bisexual women; health behaviors

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Sexual minority women (SMW) are a population who experience elevated rates of mental and physical health problems compared to their heterosexual counterparts (King et al., 2008; Simoni, Smith, Lehavot, & Walters, 2012). Research on this population has increased dramatically over the past two decades, yet there remain many gaps in our understanding of SMW, particularly in exploring similarities and differences across racial and ethnic lines (Hughes, 2011). Much of what we know about racial and ethnic differences in lesbian, gay, bisexual, and transgender (LGBT) communities has focused solely on research with men who have sex with men in regards to HIV/AIDS infection (e.g., Wei et al., 2010), which may not necessarily resonate with the experiences of lesbian or bisexual women. Other research has collapsed racial/ethnic differences across men and women (e.g., Balsam, Lehavot, Beadnell, & Circo, 2010; Moradi et al., 2010), which also precludes researchers and clinicians from understanding women's experiences as they may differ from men's.

### Emerging adulthood

Another gap in the literature on SMW pertains to age cohorts. While research has explored adulthood more generally or focused on adolescence specifically, very few studies have explored the unique identity and health concerns of SMW in emerging adulthood, the period from ages 18 to 25 (Arnett, 2000, 2004). Emerging adulthood (EA) is a period in which many individuals begin to experience new roles and responsibilities as well as identity instability and exploration (Arnett, 2000; Azmitia, Syed, & Radmacher, 2008). As young adults transition from their parents' homes to more independent living situations, new opportunities for identity exploration become available outside of parental supervision. Exploration can incorporate experimenting with new roles (i.e., college student, employee), identities, as well as social and romantic relationships (Arnett, 2000, 2007). This is also a time when many young adults are at higher risk for engaging in risky behaviors than later in adulthood, such as substance use (Arnett, 2005; Brown, Tolou-Shams, & Whiteley, 2008; Tucker, Ellickson, Orlando, Martino, & Klein, 2005).

Emerging adulthood is a period of particular relevance for SMW. Prior research indicates that many women first experience many of the milestones of sexual identity development during this period, including awareness of same-sex attractions, sexual behavior, romantic relationships, and self-identifying as a lesbian or bisexual (D'Augelli & Hershberger, 1993; D'Augelli, Hershberger, & Pilkington, 1998; Diamond, 2005; Morris, Waldo, & Rothblum, 2001; Parks & Hughes, 2007). Hence, research during this developmental period may shed light on factors that may impact mental and physical health over the lifespan and help account for health disparities. Despite this, it is notable that surprisingly little research has explored identity, risk factors, and health outcomes or racial/ethnic differences among SMW during EA.

### LGB people of color: Stressors and health disparities

While all lesbian, gay, bisexual (LGB) individuals are subject to societal prejudice and discrimination based on sexual orientation, LGB people of color face additional challenges. For ethnic and racial minorities, acceptance and connectedness to their ethnic/racial group serves as a support mechanism for managing discrimination from the majority culture

(Greene, 1994). Lack of acceptance from one's own cultural group may decrease an individual's willingness to reveal their sexual identity. For example, SMW of color have reported questioning their sexual identity internally at an earlier age (Parks, Hughes, & Matthews, 2004; Maguen, Floyd, Bakeman, & Armistead, 2002), yet deciding on their sexual identity more slowly compared to White SMW (Parks et al., 2004). In addition, younger SMW of color have lower rates of disclosure to family members and nonfamily social networks when compared to White SMW (Ragins, Cornwell, & Miller, 2003).

LGB people of color experience multiple forms of discrimination and victimization simultaneously (e.g., race- and sexuality-based bullying; Hightow-Weidman et al., 2011) as well as unique forms of oppression, including racism within LGBT communities (Balsam, Molina, Beadnell, Simoni, & Walters, 2011; Chae et al., 2010; Han, 2007; Ward, 2008) and heterosexism within communities of color (Balsam et al., 2011; Bridges, Selvidge, & Matthews, 2003; Chae et al., 2010; Mays, Cochran, & Rhue, 1993). When looking specifically at LGB-related discrimination, some studies have found greater reports among LGB people of color compared to their white counterparts (Ceballos-Capitaine et al., 1990; David & Knight, 2008; Siegel & Epstein, 1996), whereas others have not (Balsam, Beadnell, & Molina, 2012; Moradi et al., 2010; Ragins et al., 2003). However, this research has been largely conducted among samples of gay and bisexual men. LGB people of color also experience elevated rates of victimization relative to White counterparts (Arreola et al., 2005; Balsam et al., 2010; Dunbar, 2006; Meyer, 2010; Morris & Balsam, 2003).

Given the multiple forms of oppression LGB people of color face, minority stress theory initially proposed that racial/ethnic minorities would have worse health outcomes relative to Whites. However, evidence has been mixed, especially for mental health (Balsam et al., 2010; Balsam et al., 2012; Cochran, Mays, Alegria, Ortega, & Takeuchi, 2007; Kertzner, Meyer, Frost, & Stirrat, 2009; Meyer, Dietrich, & Schwartz, 2008; Mustanski, Garofalo, & Emerson, 2010; O'Donnell, Meyer, & Schwartz, 2011). Specifically, some studies have found differences in depression and psychological distress (Bostwick, Hughes, and Johnson, 2005; Kim & Fredriksen-Goldsen, 2012), whereas others have not (e.g., Balsam et al., 2010; Balsam et al., 2012; Kertzner et al., 2009). However, it is notable that anxiety disorders and PTSD, which have been studied in the general literature on SMW, have not been evaluated for racial/ethnic disparities.

The extent to which race and ethnicity are associated with differential rates of substance use among SMW is also unclear given the existing literature. Studies have generally found SMW of color are more likely to be smokers compared to White SMW (Hughes, Johnson, & Matthews, 2008; Mays, Yancey, Cochran, & Weber, 2002). In contrast, generally drinking rates appear comparable across SMW from differing ethnic or racial groups (Cáceres & Cortinas, 1996; Hughes & Eliason, 2002; Hughes et al., 2006; Parks & Hughes, 2005), although one study has found Black SMW reported higher rates of heavy drinking and past year drinking consequences than did White SMW (Hughes et al., 2006).

## The present study

In sum, although the research literature on SMW has grown, research specifically examining characteristics of young adult SMW is needed to better understand identity development and later health outcomes in this population. The current study attempted to address these gaps in the literature and compare these experiences among White, Latina, Asian American, and African American SMW in order to better understand similarities and differences across race/ethnicity groups of young adult SMW. We were specifically interested in how SMW of color, who face additional life challenges associated with their racial/ethnic minority status, may be different or similar to white women. Consistent with prior literature in this area, we hypothesized that SMW of color will report more victimization than the other groups. We also hypothesized that compared to White women, SMW of color will report a more negative LGB identity and less outness to family members, but there will be similarities in mental health outcomes. Given the small and inconsistent body of literature on racial/ethnic differences in mental health and health behaviors, we did not hypothesize a specific direction of these relationships but rather sought to explore whether any important differences emerged.

## Method

### Participants

The sample was a part of a larger national longitudinal study that recruited 1,106 self-identified SMW ages 18–25 using online advertisements to examine health-related behaviors and their determinants. The current study includes data from year 1 of the four-year longitudinal study. Participants were recruited between 9/1/10 and 5/4/11. The average age of participants was 20.88 ( $SD = 2.11$ ). Approximately 40% ( $n = 433$ ) identified as lesbian, 58.6% ( $n = 648$ ) identified as bisexual, and 1.4% ( $n = 15$ ) did not identify as lesbian or bisexual. On average, participants had completed some college and had an annual income of less than \$10,000 a year. Whereas education was normally distributed, personal annual income exhibited elevated skew ( $4.20 \pm 0.08$ ) and kurtosis ( $25.81 \pm 0.15$ ), with the majority of the sample making less than \$10,000 (69.6%).

### Procedures

Online advertisements were placed on the social networking site Facebook for women across the U.S. Facebook advertisements were tailored so that only potentially eligible women (i.e., women who live in the U.S., women who listed on their Facebook profile that they are interested in relationships with women) would be shown the ad. We also placed advertisements Craigslist job listings of select cities with larger ethnic/racial and sexually diverse populations (e.g., Los Angeles, Seattle, New York). Advertisements instructed interested participants to either call a toll-free number, e-mail, or click the ad for more information. Clicking the ad would directly send participants to an online 5-minute screening survey, which included the following eligibility criteria: 1) living in the U.S., 2) a valid e-mail address, 3) between the ages of 18 to 25, and 4) self-identified as lesbian or bisexual at the time of the assessment. Women who consented to participate were then

routed to the 45-minute baseline survey. Eligible participants who completed baseline were paid \$25.

## Measures

Measures were selected based on relevance to the research questions and prior use in studies of SMW.

### Demographics

**Socio-demographic characteristics:** Standard items were used to assess socio-demographic information (e.g., age, income). Race was assessed by asking participants to check all of the following options which applied to them: Asian/Asian American, Black/African American, Caucasian/White, American Indian/Alaska Native, Native Hawaiian/Pacific Islander, and Other. Participants who checked more than one race were then shown a follow-up question asking them to please pick the race that they identify with the most. Ethnicity was coded as either Hispanic/Latina or non-Hispanic/Latina.

### LGB Identity

**Age of coming out:** In order to determine the progression of sexual identity development, the Age of Coming Out questionnaire (Parks & Hughes, 2007) was used to assess the age in which the participant first: 1) wondered if she was lesbian/bisexual, 2) decided she was lesbian/bisexual, and 3) disclosed a lesbian/bisexual identity. This questionnaire also included items addressing relationship involvement (e.g., first sexual experience and first relationship with men/women).

**Outness:** A modified version of the Outness Inventory (OI; Mohr & Fassinger, 2000) was used to assess the degree to which an individual is open about their sexual orientation with different types of people. Response options are based on a Likert scale range from 1 = *person definitely does NOT know about your sexual orientation status* to 7 = *person definitely knows about your sexual orientation status, and it is OPENLY talked about*. The OI is composed of three subscales: outness to family, the world (friends, peers, co-workers, supervisors), and religious organizations/leaders. Sub-scale and an overall outness score was calculated by computing the averages of appropriate items. Cronbach's alpha for this sample was 0.83.

**LGB identity:** We assessed the 'negative identity' dimension of LGB identity with a modified version of the 27-item Lesbian Gay Bisexual Identity Scale (LGBIS; Mohr, & Fassinger, 2000; Mohr & Kendra, 2011). Response options are based on a 7-point Likert scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. Sample items of this 21-item sub-scale were: "I keep careful control over who knows about my same-sex romantic relationships," "I would rather be straight if I could," and "Admitting to myself that I'm an LGBTQ person has been a very painful process." Total scores were means of items. Cronbach's alpha for this sample was 0.89.

**Involvement in LGB activities:** The Involvement in Gay-Related Activities Scale (Rosario, Hunter, Maguen, Gwadz, & Smith, 2001) was a 10-item measure that was used to determine

if participants had ever done any of the LGB activities listed. Sample activities included “Gone to an annual LGBTQ pride march” and “Gone to LGBTQ dance clubs, bars, discos, or hung around these places.” Response options were coded as 0 = *no* and 1 = *yes*.

**Connectedness to LGBTQ community:** Connectedness to the LGBTQ community was Frost and Meyer’s (2012) 8-item measure to which participants could answer on a 5-point Likert scale, ranging from 1 = *strongly disagree* to 5 = *strongly agree*. Sample questions include “Participating in the LGBTQ community is a positive thing for me,” and “I really feel that any problems faced by the LGBTQ community are also my problems.” A total connectedness score was computed by taking the mean of all items. Cronbach’s alpha for this sample was .88.

### **Stressors**

**Sexual assault:** Incidence of sexual assault in childhood and adulthood was examined with a modified version of the Sexual Experiences Survey (SES; Koss & Gidycz, 1985; Koss et al., 2007). Unwanted experiences included were fondling to completed oral, vaginal, and anal sexual intercourse. Participants were asked to indicate how many times they experienced each unwanted sexual encounter. Childhood was designated as 14–17 years old and adulthood as 18 years old to the time of the survey. For this study, we assessed incidence of any type of sexual assault as a child and as an adult (0 = *no*, 1 = *yes*). Forcible rape at any age was also calculated using sub-questions that addressed threats to physical harm (e.g., threatening to physically harm me or someone close to me) and applied physical force (e.g., holding me down with their body weight, pinning my arms, or having a weapon) for unwanted oral, vaginal, and anal sex. Forcible rape was coded as 0 = *no* and 1 = *yes*.

**Trauma exposure:** Lifetime trauma exposure was measured with a modified version of the Traumatic Life Experiences Questionnaire (TLEQ; Kubany et al., 2000), which included 23 Criterion A events (e.g., “Has anyone threatened to kill you or cause you serious physical harm?”) and asked how many times, if any, they had experienced each event (0 = *no/never* to 5 = *more than 5 times*). For interpersonal trauma questions, participants who endorsed these traumas were followed up with the sub-question, “Do you think that this occurred because you are LGBTQ?” Response options for interpersonal sub-questions included 0 = *no* and 1 = *yes*. For this study, we calculated the total number of Criterion A events as well as the number of Criterion A events that were related to LGB status (*perceived LGB-related traumatic events*).

**Perceived discrimination:** General perceived discrimination in the last 12 months (0 = *never*; 4 = *often*) was assessed with the 9-item Perceived Discrimination scale (PD; Williams, Yu, Jackson, & Anderson, 1997). Sample questions include “People act as if they are afraid of you,” and “You are threatened or harassed.” Participants were asked if experienced discrimination was related to sexual orientation and/or to “other factors.” A total score for PD was calculated by taking the mean of all items and scores for PD due to sexual orientation and due to other factors were as based on the means of all sub-question items. Cronbach’s alpha for this sample was 0.89.



## Mental Health

**Depression:** In order to examine depressive symptoms within the past month, we administered and calculated averages as summary scores of the 20-item Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977), with items such as “I had crying spells.” Response options ranged from 1 = *rarely or none of the time (less than 1 day)* to 4 = *most or all of the time (5–7 days)*. Cronbach’s alpha for this sample was 0.80.

**Generalized anxiety:** The 7-item Generalized Anxiety Disorder-7 (GAD-7; Spitzer, Kroenke, Williams, & Löwe, 2006) was used to assess generalized anxiety in the past month with items such as “worrying too much about different things.” Response options include 0 = *not at all*, 1 = *several days*, 2 = *more than half the days*, and 3 = *nearly every day*. Summary scores were averages of all items. Cronbach’s alpha for this sample was 0.91.

**Social anxiety:** Social anxiety was measured using the 20-item Social Interaction Anxiety Scale (SIAS; Mattick & Clarke, 1998). Example questions included such as “I am nervous mixing with people I don’t know well.” Likert scale response options ranged from 0 = *not at all* to 4 = *extremely*. Summary scores were calculated as a mean of all items. Cronbach’s alpha for this sample was 0.89.

**Posttraumatic Stress Disorder (PTSD) severity:** PTSD symptoms within the past month were assessed using the 17-item PTSD Checklist-Civilian (PCL-C; Weathers, Litz, Herman, Huska, & Keane, 1994) to assess intrusive symptoms (e.g., “Repeated, disturbing memories, thoughts or images.”), avoidant symptoms (e.g., “Feeling distant or cut off from other people.”), and hyperarousal symptoms (e.g., “Being ‘super alert’ or watchful on guard.”). Response options are based on a Likert Scale of 1 = *not at all* to 5 = *extremely*. PTSD severity was calculated by summing the three symptoms to produce an overall score. Cronbach’s alpha for this sample was 0.95.

## Health Behaviors: Alcohol consumption

**Heavy episodic drinking:** The occurrence of heavy episodic drinking was calculated using the Hazardous Drinking Measure (HD; Wilsnack, Klassen, Schur, & Wilsnack, 1991). Participants are asked to report the incidence of drinking 4 or more alcoholic drinks in one day in the last 12 months. Response options ranged from 0 = *never in a year* to 7 = *5 or more times a week*.

**Peak drinking:** Peak drinking was determined with the Quantity Frequency Questionnaire (QF; Marlatt, Baer, & Larimer, 1995). Participants were asked to report the number of drinks they consumed (0 = *0 drinks* to 25 = *25+ drinks*) and the number of hours they spent drinking (0 = *0 hours* to 10 = *10+ hours*) during their heaviest drinking occasion in the past month. A calculation determined BAC from this drinking occasion.

**Alcohol-related negative consequences:** The 48-item Young Adult Alcohol Consequences Questionnaire (YAACQ; Read, Kahler, Strong, & Colder, 2006) was used to assess alcohol-related negative consequences experienced in the past 30 days (e.g., “The quality of my work or school work has suffered because of drinking.”). The response categories were 0 =

*no* and 1 = *yes*. The number of alcohol-related negative consequences was calculated by summing all items. Cronbach's alpha for this sample was 0.95.

### Health behaviors: Substance use

**Marijuana use:** We asked participants to describe their marijuana use: 0 = *I have never tried marijuana*; 1 = *I have tried marijuana, but currently am abstaining*; 2 = *I am a light user*; 3 = *I am a moderate user*; and 4 = *I am a heavy user*.

**Smoking status:** Participants were asked about lifetime ("Have you ever smoked a tobacco cigarette?": 0 = *no* and 1 = *yes*) and current smoking status ("On how many days in the past thirty days have you smoked (0–30)?"). Current smoking status was subsequently recoded to indicate having smoked versus having not smoked within the past 30 days.

### Analytic plan

For the purposes of this exploratory study, we identified racial/ethnic differences in demographics, identity, and mental health variables by using univariate analyses of variance (ANOVA), logistic regression, and chi square. In all analyses, race/ethnicity was the independent variable and we compared Asian American, African American, Latina, and White participants to each other. For significant omnibus tests, we report subsequent post-hoc comparisons between racial/ethnic groups with non-Hispanic White participants as the reference group unless noted otherwise.

## Results

### Sample characteristics

Of the 1,106 women recruited into the study, we included 967 and excluded 139 SMW who did not report their racial/ethnic identity ( $N = 17$ ), reported that they identified with more than one racial/ethnic identity ( $N = 61$ ), or because their racial/ethnic group had too few individuals for between-group comparisons ( $N = 61$ ). These groups did not differ from the analytic sample by age,  $F(1, 1088) = 0.55, p = .46$ ; or income,  $F(1, 1036) = .08, p = .77$ . Individuals included in the analytic sample did, however, have a higher level of education ( $M = 3.56, SD = 1.46$ ) than those excluded from the sample,  $M = 3.26, SD = 1.37$ ;  $F(1, 1089) = 4.91, p = .03$ . Individuals included in the analytic sample were also less likely to identify as bisexual, 57.9% vs. 71.0%,  $\chi^2(1) = 7.77, p = .005$ .

Among the analytic sample, 108 identified as African American, 91 as Latina/Hispanic American, 38 as Asian American, and 730 as White. Women ranged from 18 to 25 years old ( $M = 20.90, SD = 2.09$ ). Approximately 42% identified as lesbian and 57.9% identified as bisexual. The majority of our sample (69.9%) reported their personal income was less than \$10,000. Approximately a third of our sample had completed high school and 44.8% reported some college courses; indeed, 66.2% of our sample reported a current student status.



### Racial/ethnic differences in socio-demographic characteristics

Table 1 provides descriptive statistics for socio-demographic characteristics. White SMW were the referent group in racial/ethnic comparisons. Racial/ethnic groups differed with regard to education,  $F(3, 963) = 4.25, p = .005$ ; working part-time, *Wald test*,  $df = 3, p = .01$ ; months employed,  $F(3, 896) = 4.54, p = .004$ ; and personal income,  $F(3, 924) = 2.94, p = .03$ . Subsequent post-hoc comparisons revealed African American participants were almost half as likely to report part-time employment,  $OR = .48, 95\% CI [.30, .77], p = .002$  and had been employed for fewer months relative to non-Hispanic Whites ( $p = .006$ ). Asian American participants reported higher levels of educational attainment ( $p = .03$ ) and greater personal income ( $p = .02$ ).

African American women had increased odds of having children,  $OR = 2.21, 95\% CI [1.29, 3.77], p = .04$ ; living with parents/relatives,  $OR = 1.81, 95\% CI [1.20, 2.71], p = .002$ ; and having a history of being homeless relative to White SMWs,  $OR = 1.82, 95\% CI [1.15, 2.87], p = .01$ . Latina Americans also had increased odds of living with parents/relatives relative to Whites,  $OR = 1.90, 95\% CI [1.23, 2.95], p = .004$ . Both of these groups also reported decreased odds of having insurance relative to Whites: African Americans  $OR = .46, 95\% CI [.30, .7], p = .0001$ , and Latina Americans  $OR = .49, 95\% CI [.31, .77], p = .002$ .

### Racial/ethnic differences in LGB identity characteristics

Table 2 presents descriptive information in LGB identity characteristics. Few differences existed concerning sexual identity milestones, except for first relationships:  $F(3, 822) = 4.07, p = .007$  with a man and  $F(3, 819) = 3.44, p = .02$  with a woman. Subsequent comparisons revealed that, relative to White counterparts, African American women had their first relationship with a man and Latina Americans had their first relationship with a woman at earlier ages ( $p = .01$  for all). Racial/ethnic groups were most disparate with regard to outness to family,  $F(3, 958) = 8.32, p < .0001$ : all racial/ethnic minorities were significantly less out than Whites ( $p < .05$  for all). Despite significant omnibus differences in LGBIS negative identity,  $F(3, 963) = 3.83, p = .01$ , and connectedness to LGBTQ communities,  $F(3, 963) = 2.68, p = .05$ , post-hoc comparisons only revealed non-significant associations concerning slightly increased negative identity scores among African Americans ( $p = .09$ ) and connectedness to LGBTQ community scores among Latina Americans ( $p = .06$ ).

### Racial/ethnic differences in stressors

Trauma and discrimination variables are presented in Table 3. Racial/ethnic differences were present with regard to childhood sexual assault, *Wald test* = 12.65,  $df = 3, p = .005$  and forcible rape at any age, *Wald test* = 7.74,  $df = 3, p = .05$ , but not adult sexual assault, *Wald test* = 4.80,  $df = 3, p = .20$ . Subsequent analysis revealed African Americans to have increased,  $OR = 1.67, 95\% CI [1.11, 2.51], p = .01$ , and Asian Americans to have decreased odds of reporting childhood sexual assault relative to White counterparts,  $OR = .41, 95\% CI [.18, .93], p = .03$ . Asian Americans also had reduced odds of reporting forcible rape at any age,  $OR = 0.29, 95\% CI [.11, .75], p = .01$ . Racial/ethnic groups were comparable with regard to total number of traumatic events,  $F(3, 963) = 1.80, p = .15$ , and perceived LGBTQ-

related traumatic events,  $F(3, 963) = 1.35, p = .26$ . There were no significant differences with regard to overall discrimination scores,  $F(3, 963) = 1.90, p = .13$ . Racial/ethnic groups did differ by sexual orientation-based discrimination,  $F(3, 963) = 3.69, p = .01$ : Whites exhibited greater scores than African Americans ( $p = .01$ ).

### Racial/ethnic differences in health behaviors

Mental health and health-risk behaviors are reported in Table 4. Few differences existed in terms of depression,  $F(3, 949) = .96, p = .41$ ; general anxiety,  $F(3, 959) = 1.93, p = .12$ ; and social anxiety,  $F(3, 920) = 2.52, p = .06$ . Indeed, the only significant difference in mental health outcomes was PTSD severity,  $F(3, 934) = 4.30, p = .02$ , wherein Asian Americans exhibited lower scores relative to Whites ( $p = .005$ ). Racial/ethnic groups were generally comparable in heavy episodic drinking,  $F(3, 764) = 1.41, p = .24$ , and alcohol-related consequences,  $F(3, 950) = 1.33, p = .26$ . Racial/ethnic groups did differ in peak drinking,  $F(3, 959) = 3.84, p = .009$ . African Americans reported lower peak drinking than Whites ( $p = .03$ ).

### Discussion

The current study sought to characterize the developmental period of young adulthood for diverse SMW by exploring racial and ethnic differences in identity development and health outcomes. Perhaps the most notable aspect of our findings was that there were more similarities than differences between women across the four racial and ethnic groups in the study. As predicted, differences were found in socioeconomic stressors and exposure to victimization and discrimination, yet indicators of mental health and health behaviors were largely similar across groups. Taken as a whole, our findings highlight resilience among young SMW of color, despite an additional burden of stressors.

The most salient differences between young SMW of color and their White counterparts in our study were increased exposure to life stressors. In particular, African American SMW reported more socioeconomic disadvantage – they had, on average, fewer months of employment over the past year, were less likely to be employed part-time, and were more likely to be parents and to have been homeless compared to their White counterparts. Furthermore, African American and Latina SMW were more likely to live with their parents/relatives and less likely to have health insurance.

For young SMW, markers of identity development can include coming out to others and engaging with LGBT communities. Given the context of heterosexism in many communities of color and the unique oppressions reported by SMW of color in LGBT communities (e.g., Balsam et al. 2011, Bridges et al., 2003; Chae et al., 2010), we hypothesized that compared to White women, young SMW of color would report more negative LGB identity attitudes and less community involvement. However, young adult SMW of color did not differ from their White counterparts on internalized homonegativity, gender expression, or involvement in LGBT activities and connectedness to the LGBT community. The findings with respect to internalized homonegativity are consistent with some previous research on racial/ethnic differences (e.g., Dubé & Savin-Williams, 1999; Kennamer, Honnold, Bradford, & Hendricks, 2000; Rosario, Schrimshaw, & Hunter, 2004; Glick & Golden, 2010). Emerging

adulthood is a time of identity exploration and development, and this may be true regardless of race or ethnicity. It may also be there are resources available now for young LGB that did not previously exist, such as the proliferation of resources found on the Internet (e.g., the “It gets better campaign,” social networking sites, LGBTQ-related websites/organizations), which may buffer the development of negative identities for those who have access to the Internet and/or seek these resources out.

African American, Asian American and Latina SMW did report being less “out” to family members in comparison to White SMW. This finding is consistent with recent research (Moradi et al., 2010), but extends these findings to the Emerging Adulthood period. Interestingly, both African American and Latina SMW were more likely to live with their families, making outness in the context of family relationships even more complicated. While family can provide support and guidance during this critical developmental period, the need to hide a part of one’s identity from family can add an additional stressor. One possibility is that keeping sexual identity hidden from family members helps to maintain affiliations to broader racial or ethnic community and support to buffer them against societal racism. Indeed, experiences of racial or ethnic discrimination may make the risk of experiencing rejection from family for sexual orientation highly salient, especially since SMW of color experience heterosexism in their larger racial/ethnic communities (e.g., Balsam et al., 2011; Bridges et al., 2003; Chae et al., 2010). Given this, it is somewhat surprising that SMW women of color did not have elevated reports of overall discrimination compared to White SMW, especially given SMW of color manage multiple minority identities (e.g., Ceballos-Capitaine et al., 1990; David & Knight, 2008). It is also interesting to note that white women, reported greater experience of sexual orientation discrimination than women of color. It may be that being more “out” to family increases risk for white women, or that sexual orientation discrimination is more salient to those who do not also experience racial/ethnic discrimination.

Our study was the first to examine trauma exposure more broadly among young SMW, and we also did not find overall differences according to race or ethnicity. However, consistent with previous studies (e.g., Balsam et al., 2010), African American women did report elevated rates of sexual victimization and Asian American participants reported less. Prior studies of presumably heterosexual adults have found elevated rates of childhood victimization among ethnic and racial minorities (e.g., Ullman & Filipas, 2005; Hussey, Chang, & Kotch, 2006). Further research is needed to examine potential explanatory mechanisms for this elevated risk. It is also interesting to note that Asian American participants reported relatively high rates of any type of sexual assault in adulthood relative to their reports of forcible rape or sexual assault in childhood. Given the small sample size for this group, it will be important to follow up with this finding in future research.

Despite the relative lack of group differences in exposure to trauma, it is important to note relatively high levels of trauma exposure in this sample. This is consistent with many previous studies (Balsam, Rothblum, & Beauchaine, 2005; Rothman, Exner, & Baughman, 2011) demonstrating sexual minority status, especially among women, as a risk factor for trauma. Previous studies have explored factors such as early exposure to bullying, gender nonconformity, or risk behaviors such as alcohol and drug use that may elevate

victimization risk (Bontempo & D'Augelli, 2002; D'Augelli, Grossman, & Starks, 2006). In addition, factors such as homelessness have complex relationships with victimization, wherein victimization increases risk of homelessness among youth and homelessness, which in turn is associated with increased risk for victimization, especially among sexual minorities (Cochran, Stewart, Ginzler, & Cauce, 2002; Tyler, Whitbeck, Hoyt, & Cauce, 2004).

### **Mental Health and Health Risk Behaviors**

We found few racial/ethnic differences in mental health symptoms, which is line with some previous research (Cochran et al., 2007; Meyer et al., 2008). Asian American participants reported significantly lower PTSD scores, although this finding should be interpreted with caution due to the small sample of Asian American SMW included in the study. Similarly, we found few differences in health risk behaviors. Consistent with previous studies, levels of alcohol consumption were similar across race/ethnic groups (Cáceres & Cortinas, 1996; Hughes & Eliason, 2002; Hughes et al., 2006; Parks & Hughes, 2005). One exception is that African American SMW reported significantly lower peak drinking than White SMW; in the context of largely similar drinking behavior, however, further research is needed in order to interpret this finding. There were no racial/ethnic differences in rates of tobacco use. Given that our study was unique in our focus on Emerging Adulthood, it is possible that the differences found in previous studies do not emerge until later in adulthood (Hughes et al., 2008; Mays et al., 2002), or that they represent cohort effects. However, our sample overall had relatively high rates of current smoking as compared with general studies of young heterosexual women (Burgard, Cochran, and Mays, 2005; Case et al., 2004; Greenwood et al., 2005; Tang et al., 2004). Taken together, these findings regarding both mental health and health risk behaviors among ethnically diverse young adult SMW highlights the import of examining these behaviors longitudinally and across developmental stages in order to understand complex interactions between risks and health risk behaviors over time.

### **Limitations and Conclusions**

In sum, the current study advances our knowledge about the life experiences of ethnically and racially diverse SMW during a critical developmental period that has been understudied. Results highlight that there are more similarities than differences across race/ethnicity, which may reflect both generational and societal shifts toward greater equality for sexual minorities in the U.S. Despite these similarities, however, important racial/ethnic differences exist, especially with respect to socioeconomic status, family relationships, and life stressors. Our study utilized a relatively novel sampling methodology via the internet to address some of the limitations of previous studies and recruit a large, ethnically diverse sample over a wide geographic range. Because we did not recruit from within LGBT communities, we were also better able to reach women who were geographically isolated (e.g., rural areas, small towns) and to include more bisexual women with fewer ties to LGBT communities.

Despite the relative strengths of the study, there are also limitations to keep in mind. Similar to other large, within-group studies of LGB populations, our sampling method was non-random and may not be representative of the U.S. population. While recruiting via Facebook

allowed us to reach women who may not have previously been represented in sexual minority research, doing so necessitated that potential participants needed to indicate on their Facebook profiles that they were interested in relationships with women. It is likely that women who have not disclosed their sexual orientation and/or are already in a long-term partnership may have automatically been excluded from the sample. Another sampling limitation is that women needed to specifically identify as lesbian or bisexual to be included. Thus, our methodology may have excluded women who were still questioning their identities or who refused to choose an identity when given a forced choice format. An additional consideration is that our study used self-report measures. Although this method is generally reliable when confidentiality is assured, it is possible that the use of self-report may have led to over or underreporting of mental health concerns, trauma exposure, or substance use, as compared to an interviewer-administered diagnostic measure. In addition, the present paper focuses on cross-sectional data, precluding the examination of causal relationships or the influence of various factors on each other over time. Although we examined racial and ethnic differences in identity, stressors, and mental health variables, we did not examine the relationships among these variables within the sample. Given the lack of any previous research on ethnically and racially diverse young adult SMW, however, our findings still contribute as a means of generating directions for future research. Although our sample was indeed more diverse than most studies of SMW, we still had very small sample sizes of some groups such as Native American women that prevented their inclusion in inter-group analyses. Finally, given the number of comparisons conducted for this paper, the possibility of Type 1 error must be considered.

Our study highlights the need for future research in this area that can further explicate our findings. First of all, it will be important to recruit larger samples of women from specific racial/ethnic groups (e.g., Asian American women) to examine critical differences within these groups according to culture, nationality, and immigrant status rather than collapsing these differences into a single category. Additionally, given that African American and Latino people are more likely to access the internet via a cell phone or other mobile device, it may be useful for future web-based research to offer a specific mobile platform to increase accessibility for these populations (Lopez, Gonzalez-Barrera, & Patten, 2013). Our study did not include specific measures of racial and cultural identity and acculturation to mainstream culture, which is likely to have important relevance for the factors we examined and should be included in future research. Further, our question about discrimination related to “other factors” did not allow for specific assessment of racial/ethnic discrimination. It is also important to note that many of the women in our study selected more than one ethnic or racial category, thus precluding their inclusion in our specific inter-group comparisons. The experiences of multiracial SMW women, especially as they navigate multiple complex intersecting identities is an important perspective for future studies to explore. Future research should also examine models of how demographics, identity, stressors, and mental health variables are interrelated among diverse SMW, and explore potential mediators and moderators to explain racial and ethnic differences. Finally, it will be important for future researchers to consider recent critiques of the validity of using race as an independent variable at all (e.g., Helms, Jernigan, & Mascher, 2005) and include variables that are more

conceptually meaningful to capture the lived experiences of SMW from diverse backgrounds.

Our findings indicate that both researchers and clinicians should turn their attention to processes of resilience among young SMW, particularly young SMW of color. The past two decades of scholarly work on sexual minorities has attended, for important reasons, largely to the stressors and resulting health disparities faced by sexual minorities, and more recently on the multiple stressors faced by SMW of color. Yet it is clear that there are some processes at work to protect these young women from negative health consequences. It will be important that future researchers investigate protective factors and individual strengths in this population. Doing so will provide direction for the development of prevention and intervention programs aimed at promoting well-being for young SMW as they navigate the transition from adolescence into adulthood.

## Acknowledgments

This research was supported by a grant from the National Institute on Alcohol and Alcoholism R01AA018292.

## References

- Arnett J. Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*. 2000; 55:469–480.10.1037/0003-066X.55.5.469 [PubMed: 10842426]
- Arnett, J. *Emerging adulthood: The winding road from the late teens through the twenties*. New York, NY US: Oxford University Press; 2004.
- Arnett J. The developmental context of substance use in emerging adulthood. *Journal of Drug Issues*. 2005; 35:235–254.
- Arnett J. Emerging adulthood: What is it, and what is it good for? *Child Development Perspectives*. 2007; 1:68–73.10.1111/j.1750-8606.2007.00016.x
- Arreola S, Neilands TB, Pollack LM, Paul JP, Catania JA. Higher prevalence of childhood sexual abuse among Latino men who have sex with men than non-Latino men who have sex with men: Data from the Urban Men's Health Study. *Child Abuse & Neglect*. 2005; 29:285–290.10.1016/j.chiabu.2004.09.003 [PubMed: 15820544]
- Azmitia M, Syed M, Radmacher K. On the intersection of personal and social identities: Introduction and evidence from a longitudinal study of emerging adults. *New Directions for Child and Adolescent Development*. 2008; 120:1–16. [PubMed: 18521867]
- Balsam KF, Beadnell B, Molina Y. The Daily Heterosexist Experiences Questionnaire measuring minority stress among lesbian, gay, bisexual, and transgender adults. *Measurement and Evaluation in Counseling and Development*. 2013; 46:3–25. [PubMed: 24058262]
- Balsam KF, Lehavot K, Beadnell B, Circo E. Childhood abuse and mental health indicators among ethnically diverse lesbian, gay, and bisexual adults. *Journal of Consulting and Clinical Psychology*. 2010; 78:459–468.10.1037/a0018661 [PubMed: 20658803]
- Balsam KF, Molina Y, Beadnell B, Simoni J, Walters K. Measuring multiple minority stress: The LGBT People of Color Microaggressions Scale. *Cultural Diversity and Ethnic Minority Psychology*. 2011; 17:163–174.10.1037/a0023244 [PubMed: 21604840]
- Balsam KF, Rothblum ED, Beauchaine TP. Victimization over the life span: A comparison of lesbian, gay, bisexual, and heterosexual siblings. *Journal of Consulting and Clinical Psychology*. 2005; 73:477–487.10.1037/0022-006X.73.3.477 [PubMed: 15982145]
- Bontempo DE, D'Augelli AR. Effects of at-school victimization and sexual orientation on lesbian, gay, or bisexual youths' health risk behaviors. *Journal of Adolescent Health*. 2002; 30:364–374. [PubMed: 11996785]



- Bostwick WB, Hughes TL, Johnson T. The co-occurrence of depression and alcohol dependence symptoms in a community sample of lesbians. *Journal of Lesbian Studies*. 2005; 9:7–18.10.1300/J155v09n03\_02 [PubMed: 17548281]
- Bridges SK, Selvidge MD, Matthews CR. Lesbian women of color: Therapeutic issues and challenges. *Journal of Multicultural Counseling and Development*. 2003; 31:113–130.10.1002/j.2161-1912.2003.tb00537.x
- Brown LK, Tolou-Shams M, Whiteley L. Youths' HIV risk in the justice system: A critical but neglected issue. *Journal of the American Academy of Child & Adolescent Psychiatry*. 2008; 47:845–846.10.1097/CHI.0b013e3181799ff6 [PubMed: 18645416]
- Burgard SA, Cochran SD, Mays VM. Alcohol and tobacco use patterns among heterosexually and homosexually experienced California women. *Drug and Alcohol Dependence*. 2005; 77:61–70.10.1016/j.drugalcdep.2004.07.007 [PubMed: 15607842]
- Cáceres CF, Cortiñas JI. Fantasy island: An ethnography of alcohol and gender roles in a Latino gay bar. *Journal of Drug Issues*. 1996; 26:245–260.
- Case P, Austin S, Hunter DJ, Manson JE, Malspeis S, Willett WC, Spiegelman D. Sexual orientation, health risk factors, and physical functioning in the Nurses' Health Study II. *Journal of Women's Health*. 2004; 13:1033–1047.10.1089/jwh.2004.13.1033
- Ceballos-Capitaine A, Szapocznik J, Blaney NT, Morgan RO, Millon C, Eisdorfer C. Ethnicity, emotional distress, stress-related disruption, and coping among HIV seropositive gay males. *Hispanic Journal of Behavioral Sciences*. 1990; 12:135–152.10.1177/07399863900122004
- Chae DH, Krieger N, Bennett GG, Lindsey JC, Stoddard AM, Barbeau EM. Implications of discrimination based on sexuality, gender, and race/ethnicity for psychological distress among working-class sexual minorities: The United for Health Study, 2003–2004. *International Journal of Health Services*. 2010; 40:589–608. [PubMed: 21058533]
- Cochran BN, Stewart A, Ginzler JA, Cauce AM. Challenges faced by homeless sexual minorities: Comparison of gay, lesbian, bisexual and transgender homeless adolescents with their heterosexual counterparts. *American Journal of Public Health*. 2002; 92:773–777. [PubMed: 11988446]
- Cochran SD, Mays VM, Alegria M, Ortega AN, Takeuchi D. Mental health and substance use disorders among Latino and Asian American lesbian, gay, and bisexual adults. *Journal of Consulting and Clinical Psychology*. 2007; 75:785–794.10.1037/0022-006X.75.5.785 [PubMed: 17907860]
- DiPillo, SL. Doctoral dissertation. 2003. Identity among Black gay men: The relationship between racial and sexual orientation identity development.
- D'Augelli AR, Grossman AH, Starks MT. Childhood gender atypicality, victimization, and PTSD among lesbian, gay, and bisexual youth. *Journal of Interpersonal Violence*. 2004; 21:1462–1482. [PubMed: 17057162]
- D'Augelli AR, Hershberger SL. Lesbian, gay, and bisexual youth in community settings: Personal challenges and mental health problems. *American Journal of Community Psychology*. 1993; 21:421–448.10.1007/BF00942151 [PubMed: 8192119]
- D'Augelli AR, Hershberger SL, Pilkington NW. Lesbian, gay, and bisexual youth and their families: Disclosure of sexual orientation and its consequences. *American Journal of Orthopsychiatry*. 1998; 68:361–371.10.1037/h0080345 [PubMed: 9686289]
- David S, Knight BG. Stress and coping among gay men: Age and ethnic differences. *Psychology and Aging*. 2008; 23:62–69.10.1037/0882-7974.23.1.62 [PubMed: 18361655]
- Diamond LM. A new view of lesbian subtypes: Stable versus fluid identity trajectories over an 8-year period. *Psychology of Women Quarterly*. 2005; 29:119–128.10.1111/j.1471-6402.2005.00174.x
- Dubé EM, Savin-Williams RC. Sexual identity development among ethnic sexual-minority male youths. *Developmental Psychology*. 1999; 35:1389–1398.10.1037/0012-1649.35.6.1389 [PubMed: 10563729]
- Dunbar E. Race, gender, and sexual orientation in hate crime victimization: Identity politics or identity risk? *Violence and Victims*. 2006; 21:323–337.10.1891/vivi.21.3.323 [PubMed: 16761857]

- Frost DM, Meyer IH. Measuring community connectedness among diverse sexual minority populations. *Journal of Sex Research*. 2012; 49:36–49.10.1080/00224499.2011.565427 [PubMed: 21512945]
- Fukuyama, MA.; Ferguson, AD. Lesbian, gay, and bisexual people of color: Understanding cultural complexity and managing multiple oppressions. In: Perez, RM.; DeBord, KA.; Bieschke, KJ., editors. *Handbook of counseling and psychotherapy with lesbian, gay, and bisexual clients*. Washington, DC US: American Psychological Association; 2000. p. 81-105.
- Glick S, Golden MR. Persistence of racial differences in attitudes toward homosexuality in the United States. *JAIDS Journal of Acquired Immune Deficiency Syndromes*. 2010; 55:516–523.10.1097/QAI.0b013e3181f275e0 [PubMed: 20838226] Conditions. *Journal of Clinical Psychiatry*. 65:948–958.10.4088/JCP.v65n0711
- Greene B. Lesbian women of color: Triple jeopardy. *Journal of Lesbian Studies—Special issue: Classics in Lesbian Studies*. 1994; 1:49–60.
- Greenwood GL, Paul JP, Pollack LM, Binson D, Catania JA, Chang J, Stall R. Tobacco use and cessation among a household-based sample of US urban men who have sex with men. *American Journal of Public Health*. 2005; 95:145–151.10.2105/AJPH.2003.021451 [PubMed: 15623875]
- Han CS. They don't want to cruise your type: Gay men of color and the racial politics of exclusion. *Social Identities*. 2007; 13:51–67.
- Helms JE, Jernigan M, Mascher J. The meaning of race in psychology and how to change it: A methodological perspective. *The American Psychologist*. 2005; 60:27–36. [PubMed: 15641919]
- Hightow-Weidman LB, Phillips G, Jones KC, Outlaw AY, Fields SD, Smith JC. Racial and sexual identity-related maltreatment among minority YMSM: Prevalence, perceptions, and the association with emotional distress. *AIDS Patient Care And Stds*. 2011; 25:S39–S45.10.1089/apc.2011.9877 [PubMed: 21688988]
- Hughes TL, Eliason M. Substance use and abuse in lesbian, gay, bisexual and transgender populations. *The Journal of Primary Prevention*. 2002; 22:263–298.10.1023/A:1013669705086
- Hughes TL, Wilsnack SC, Szalacha LA, Johnson T, Bostwick WB, Seymour R, Kinnison KE. Age and racial/ethnic differences in drinking and drinking-related problems in a community sample of lesbians. *Journal of Studies on Alcohol*. 2006; 67:579–590. [PubMed: 16736078]
- Hughes TL, Johnson TP, Matthews AK. Sexual orientation and smoking: Results from a multisite women's health study. *Substance Use & Misuse*. 2008; 43:1218–1239.10.1080/10826080801914170 [PubMed: 18649240]
- Hughes T. Alcohol use and alcohol-related problems among sexual minority women. *Alcoholism Treatment Quarterly*. 2011; 29:403–435.10.1080/07347324.2011.608336 [PubMed: 22470226]
- Hussey JM, Chang JJ, Kotch JB. Child maltreatment in the United States: Prevalence, risk factors, and adolescent health consequences. *Pediatrics*. 2006; 118:933–942. [PubMed: 16950983]
- King M, Semlyen J, Tai S, Killaspy H, Osborn D, Popelyuk D, Nazareth I. A systematic review of mental disorder, suicide, and deliberate self-harm in lesbian, gay and bisexual people. *BMC Psychiatry*. 2008; 810.1186/1471-244X-8-70
- Kim H, Fredriksen-Goldsen KI. Hispanic lesbians and bisexual women at heightened risk or health disparities. *American Journal of Public Health*. 2012; 102:e9–e15.10.2105/AJPH.2011.300378 [PubMed: 22095348]
- Kenamer J, Honnold J, Bradford J, Hendricks M. Differences in disclosure of sexuality among African American and White gay/bisexual men: Implications for HIV/AIDS prevention. *AIDS Education and Prevention*. 2000; 12:519–531. [PubMed: 11220504]
- Kertzner RM, Meyer IH, Frost DM, Stirratt MJ. Social and psychological well-being in lesbians, gay men, and bisexuals: The effects of race, gender, age, and sexual identity. *American Journal of Orthopsychiatry*. 2009; 79:500–510.10.1037/a0016848 [PubMed: 20099941]
- Koss MP, Gidycz CA. Sexual Experiences Survey: Reliability and validity. *Journal of Consulting and Clinical Psychology*. 1985; 53:422–423.10.1037/0022-006X.53.3.422 [PubMed: 3874219]
- Koss MP, Abbey A, Campbell R, Cook S, Norris J, Testa M, White J. Revising the SES: A collaborative process to improve assessment of sexual aggression and victimization. *Psychology of Women Quarterly*. 2007; 31:357–370.10.1111/j.1471-6402.2007.00385.x

- Kubany ES, Leisen M, Kaplan AS, Watson SB, Haynes SN, Owens JA, Burns K. Development and preliminary validation of a brief broad-spectrum measure of trauma exposure: The Traumatic Life Events Questionnaire. *Psychological Assessment*. 2000; 12:210–224.10.1037/1040-3590.12.2.210 [PubMed: 10887767]
- Lopez, MH.; Gonzalez-Barrera, A.; Patten, E. Closing the digital divide: Latinos and technology adoption. 2013 Mar 7. Retrieved from <http://www.pewhispanic.org/2013/03/07/closing-the-digital-divide-latinos-and-technology-adoption/>
- Maguen S, Floyd FJ, Bakeman R, Armistead L. Developmental milestones and disclosure of sexual orientation among gay, lesbian, and bisexual youths. *Journal of Applied Developmental Psychology*. 2002; 23:219–233.10.1016/S0193-3973(02)00105-3
- Marlatt, G.; Baer, JS.; Larimer, M. Preventing alcohol abuse in college students: A harm-reduction approach. In: Boyd, GM.; Howard, J.; Zucker, RA., editors. *Alcohol problems among adolescents: Current directions in prevention research*. Hillsdale, NJ England: Lawrence Erlbaum Associates, Inc; 1995. p. 147-172.
- Mattick RP, Clarke J. Development and validation of measures of social phobia scrutiny fear and social interaction anxiety. *Behaviour Research And Therapy*. 1998; 36:455–470.10.1016/S0005-7967(97)10031-6 [PubMed: 9670605]
- Mays VM, Cochran SD, Rhue S. The impact of perceived discrimination on the intimate relationships of Black lesbians. *Journal of Homosexuality*. 1993; 25:1–14.10.1300/J082v25n04\_01 [PubMed: 8106735]
- Mays VM, Yancey AK, Cochran SD, Weber M, Fielding JE. Heterogeneity of health disparities among African American, Hispanic, and Asian American women: unrecognized influences of sexual orientation. *American Journal of Public Health*. 2002; 92:632–639. [PubMed: 11919064]
- Meyer IH, Dietrich J, Schwartz S. Lifetime prevalence of mental disorders and suicide attempts in diverse lesbian, gay, and bisexual populations. *American Journal of Public Health*. 2008; 98:1004–1006.10.2105/AJPH.2006.096826 [PubMed: 17901444]
- Meyer IH. Identity, stress, and resilience in lesbians, gay men, and bisexuals of color. *The Counseling Psychologist*. 2010; 38:442–454.10.1177/0011000009351601
- Mohr J, Fassinger R. Measuring dimensions of lesbian and gay male experience. *Measurement and Evaluation in Counseling and Development*. 2000; 33:66–90.
- Mohr JJ, Kendra MS. Revision and extension of a multidimensional measure of sexual minority identity: The Lesbian, Gay, and Bisexual Identity Scale. *Journal of Counseling Psychology*. 2011; 58:234–245.10.1037/a0022858 [PubMed: 21319899]
- Moradi B, Wiseman MC, DeBlaere C, Goodman MB, Sarkees A, Brewster ME, Huang Y. LGB of color and white individuals' perceptions of heterosexist stigma, internalized homophobia, and outness: Comparisons of levels and links. *The Counseling Psychologist*. 2010; 38:397–424.10.1177/0011000009335263
- Morris JF, Waldo CR, Rothblum ED. A model of predictors and outcomes of outness among lesbian and bisexual women. *American Journal of Orthopsychiatry*. 2001; 71:61–71.10.1037/0002-9432.71.1.61 [PubMed: 11271718]
- Morris JF, Balsam KF. Lesbian and bisexual women's experiences of victimization: Mental health, revictimization, and sexual identity development. *Journal of Lesbian Studies*. 2003; 7:67–85.10.1300/J155v07n04\_05 [PubMed: 24831385]
- Mustanski BS, Garofalo R, Emerson EM. Mental health disorders, psychological distress, and suicidality in a diverse sample of lesbian, gay, bisexual, and transgender youths. *American Journal of Public Health*. 2010; 100:2426–2432.10.2105/AJPH.2009.178319 [PubMed: 20966378]
- O'Donnell S, Meyer IH, Schwartz S. Increased risk of suicide attempts among Black and Latino lesbians, gay men, and bisexuals. *American Journal of Public Health*. 2011; 101:1055–1059.10.2105/AJPH.2010.300032 [PubMed: 21493928]
- Parks CA, Hughes TL, Matthews AK. Race/ethnicity and sexual orientation: Intersecting identities. *Cultural Diversity and Ethnic Minority Psychology*. 2004; 10:241–254.10.1037/1099-9809.10.3.241 [PubMed: 15311977]

- Parks CA, Hughes TL. Alcohol use and alcohol-related problems in self-identified lesbians: An historical cohort analysis. *Journal of Lesbian Studies*. 2005; 9:31–44.10.1300/J155v09n03\_04 [PubMed: 17548283]
- Parks CA, Hughes TL. Age differences in lesbian identity development and drinking. *Substance Use & Misuse*. 2007; 42:361–380.10.1080/10826080601142097 [PubMed: 17558935]
- Radloff LS. The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*. 1977; 1:385–401.10.1177/014662167700100306
- Ragins B, Cornwell JM, Miller JS. Heterosexism in the workplace: Do race and gender matter? *Group & Organization Management*. 2003; 28:45–74.10.1177/1059601102250018
- Read JP, Kahler CW, Strong DR, Colder CR. Development and preliminary validation of the Young Adult Alcohol Consequences Questionnaire. *Journal of Studies on Alcohol*. 2006; 67:169–177. [PubMed: 16536141]
- Rosario M, Hunter J, Maguen S, Gwadz M, Smith R. The coming-out process and its adaptational and health-related associations among gay, lesbian, and bisexual youths: Stipulation and exploration of a model. *American Journal of Community Psychology*. 2001; 29:113–160.10.1023/A:1005205630978 [PubMed: 11439824]
- Rosario M, Schrimshaw EW, Hunter J. Ethnic/racial differences in the coming-out process of lesbian, gay, and bisexual youths: A comparison of sexual identity development over time. *Cultural Diversity and Ethnic Minority Psychology*. 2004; 10:215–228.10.1037/1099-9809.10.3.215 [PubMed: 15311975]
- Rothman EF, Exner D, Baughman A. The prevalence of sexual assault against people who identify as gay, lesbian, or bisexual in the United States: A systematic review. *Trauma, Violence, and Abuse*. 2011; 12:55–66.
- Siegel K, Epstein JA. Ethnic-racial differences in psychological stress related to gay lifestyle among HIV-positive men. *Psychological Reports*. 1996; 79:303–312.10.2466/pr0.1996.79.1.303 [PubMed: 8873819]
- Simoni, JM.; Smith, LR.; Lehavot, K.; Walters, KL. Sexual orientation and lesbian and bisexual women's health. In: Patterson, CJ.; D'Augelli, AR., editors. *Handbook of psychology and sexual orientation*. New York, NY US: Oxford University Press; 2012.
- Spitzer RL, Kroenke K, Williams JW, Löwe B. A brief measure for assessing generalized anxiety disorder: The GAD-7. *Archives of Internal Medicine*. 2006; 166:1092–1097.10.1001/archinte.166.10.1092 [PubMed: 16717171]
- Tang H, Greenwood GL, Cowling DW, Lloyd JC, Roeseler AG, Bal DG. Cigarette smoking among lesbians, gays, and bisexuals: How serious a problem? *Cancer causes & control*. 2004; 15:797–803. [PubMed: 15456993]
- Tucker JS, Ellickson PL, Orlando M, Martino SC, Klein DJ. Substance use trajectories from early adolescence to emerging adulthood: A comparison of smoking, binge drinking, and marijuana use. *Journal of Drug Issues*. 2005; 35:305–332.
- Tyler KA, Whitbeck LB, Hoyt DR, Cauce AM. Risk factors for sexual victimization among male and female homeless and runaway youth. *Journal of Interpersonal Violence*. 2004; 19:503–520. [PubMed: 15104858]
- Ullman SE, Filipas HH. Ethnicity and child sexual abuse experiences of female college students. *Journal of Child Sexual Abuse: Research, Treatment, & Program Innovations For Victims, Survivors, & Offenders*. 2005; 14:67–89.10.1300/J070v14n03\_04
- Ward J. White normativity: The cultural dimensions of Whiteness in a racially diverse LGBT organization. *Sociological Perspectives*. 2008; 51:563–586.10.1525/sop.2008.51.3.563
- Weathers, FW.; Litz, BT.; Herman, D.; Huska, J.; Keane, T. *The PTSD checklist-civilian version (PCL-C)*. Boston, MA: National Center for PTSD; 1994.
- Wei C, Raymond HF, Guadamuz TE, Stall R, Colfax GN, Snowden JM, McFarland W. Racial/ethnic differences in seroadaptive and serodisclosure behaviors among men who have sex with men. *AIDS and Behavior*. 2011; 15:22–29. [PubMed: 20217468]
- Williams DR, Yu Y, Jackson JS, Anderson NB. Racial differences in physical and mental health: Socio-economic status, stress and discrimination. *Journal of Health Psychology*. 1997; 2:335–351.10.1177/135910539700200305 [PubMed: 22013026]

Wilsnack SC, Klassen AD, Schur BE, Wilsnack RW. Predicting onset and chronicity of women's problem drinking: a five-year longitudinal analysis. *American Journal of Public Health*. 1991; 81:305. [PubMed: 1994739]

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**Table 1**

Socio-demographic characteristics by race/ethnicity

Variable	African American (n = 108)		Latina American (n = 91)		Asian American (n = 38)		White American (n = 730)	
	M (SD)	n (%)	M (SD)	n (%)	M (SD)	n (%)	M (SD)	n (%)
Age	21.18 (2.15)		20.48 (2.06)		20.97 (2.34)		20.91 (2.07) <sub>ref</sub>	
Months employed	5.22 (4.42) <sup>**</sup>		5.67(4.61)		6.45 (4.80)		6.81 (4.62) <sub>ref</sub>	
Personal income <sup>1</sup>	0.47 (1.06)		0.55 (1.21)		1.06 (2.12) <sup>*</sup>		0.50 (1.03) <sub>ref</sub>	
Education <sup>2</sup>	3.29 (1.42)		3.82 (1.54)		3.20 (1.38) <sup>*</sup>		3.64 (1.46) <sub>ref</sub>	
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Sexual orientation								
Lesbian	52 (48.1%)		38 (41.8%)		16 (42.1%)		301 (41.2%) <sub>ref</sub>	
Bisexual	56 (51.9%)		53 (58.2%)		22 (57.9%)		429 (58.8%) <sub>ref</sub>	
Relationship status								
Single	25 (23.1%)		26 (28.6%)		10 (26.3%)		192 (26.3%) <sub>ref</sub>	
In relationship	76 (75.2%)		58 (69.0%)		28 (73.7%)		476 (71.3%) <sub>ref</sub>	
Have children	21 (19.4%) <sup>**</sup>		11 (12.1%)		1 (2.6%)		72 (9.9%) <sub>ref</sub>	
Employment status								
Full-time	17 (15.7%)		13 (14.3%)		7 (18.4%)		121 (16.6%)	
Part-time	24 (22.2%) <sup>**</sup>		26 (28.6%)		13 (34.2%)		274 (37.5%)	
Student	70 (64.8%)		59 (64.8%)		29 (76.3%)		482 (66.0%)	
Have insurance	62 (57.4%) <sup>**</sup>		54 (55.1%)		29 (76.3%)		549 (75.2%) <sub>ref</sub>	
Living with parents/relatives	52 (48.1%) <sup>**</sup>		45 (49.5%) <sup>**</sup>		15 (39.5%)		248 (34.0%)	
Been homeless	31 (28.7%) <sup>*</sup>		19 (19.4%)		3 (7.9%)		132 (18.1%) <sub>ref</sub>	

Note. Means and percentages with asterisks are significantly different from the referent group (non-Hispanic Whites).

<sup>1</sup> 0 = <\$10K, 1 = \$10–19,999, 2=\$20–29,999, 3=\$30–39,999, 4 = \$40–49,999, 5=\$50–59,999, 6=\$60–\$69,999, 7 = \$70–79,999, 8=\$80–89,999, 9=\$90–99,999, 10=\$100K and above.

<sup>2</sup> 1 = Less than a high school diploma, 2 = High school diploma, 3 = Vocational diploma, 4= Some college, 5 = Associate's degree, 6 = Bachelor's degree, 7 = Graduate or professional degree.

\* p < .05.



.100 >  $p$   
\*\*\*  
.10 >  $p$   
\*\*

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**Table 2**

LGB identity characteristics by race/ethnicity

Variable	M (SD)			
	African American (n = 108)	Latina American (n = 91)	Asian American (n = 38)	White American (n = 730)
<i>Age</i>				
First wondered	12.08 (4.45)	11.89 (4.13)	12.03 (4.23)	12.19 (3.40) <sub>ref</sub>
Decided	15.91 (3.55)	15.17 (3.46)	14.91 (3.71)	15.91 (3.55) <sub>ref</sub>
First told someone	16.61 (2.82)	16.06 (2.74)	15.65 (4.25)	15.99 (2.63) <sub>ref</sub>
First sexual experience with man	14.40 (2.47)	14.78 (3.52)	15.20 (2.58)	15.07 (3.21) <sub>ref</sub>
First sexual experience with woman	15.20 (4.82)	14.42 (3.32)	15.03 (4.12)	15.97 (3.48) <sub>ref</sub>
First relationship with man	13.72 (3.81)**	14.20 (3.18)	15.27 (2.07)	14.66 (2.63)
First relationship with woman	16.48 (3.29)	15.53 (4.67)**	16.94 (2.76)	16.70 (2.88)
<i>Outness<sup>1</sup></i>				
To family	3.28 (1.98)**	3.48 (1.77)*	3.22 (1.94)*	4.01 (1.76) <sub>ref</sub>
To world	3.56 (1.82)	3.94 (1.78)	3.92 (1.47)	3.94 (1.56) <sub>ref</sub>
To religious community	1.22 (1.83)	0.86 (1.84)	0.92 (1.68)	0.91 (1.84) <sub>ref</sub>
Overall	2.69 (1.48)	2.76 (1.38)	2.69 (1.32)	2.97 (1.23) <sub>ref</sub>
LGBIS negative identity <sup>2</sup>	3.24 (1.10)	3.19 (0.99)	3.37 (1.03)	3.00 (0.96)
Involvement in LGBTQ activities <sup>3</sup>	5.22 (2.45)	5.37 (2.56)	6.18 (2.53)	5.51 (2.57)
Connectedness to LGBTQ community <sup>4</sup>	2.07 (0.76)	1.82 (0.71)	2.16 (0.66)	2.04 (0.76)

Note. Means and percentages with asterisks are significantly different from the referent group (non-Hispanic Whites).

<sup>1</sup> 1 = person definitely does NOT know about your sexual orientation status to 7 = person definitely knows about your sexual orientation status, and it is OPENLY talked about.

<sup>2</sup> 1 = strongly disagree to 7 = strongly agree.

<sup>3</sup> Involvement in LGBTQ activities is a sum score of 10 items to which participants responded no (0) or yes (1).

<sup>4</sup> 1 = strongly disagree to 5 = strongly agree

\* p < .05.

\*\* p < .01.

.100) < *d*  
\*\*\*

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**Table 3**

Stressors by race/ethnicity

Variable	African American (n = 108)				Latina American (n = 91)				Asian American (n = 38)				White American (n = 730)			
	n (%)		n (%)		n (%)		n (%)		n (%)		n (%)		n (%)			
Sexual assault																
Childhood	52 (48.1%)**		39 (42.9%)		7 (18.4%)*		261 (35.8%) <sub>ref</sub>									
Adult	47 (43.5%)		51 (56%)		23 (60.5%)		375 (51.4%) <sub>ref</sub>									
Forcible rape (any age)	31 (30.1%)		29 (31.9%)		5 (13.9%)**		257 (35.8%) <sub>ref</sub>									
Total number of traumatic events	5.38 (4.59)		6.38 (4.36)		4.55 (3.25)		5.47 (4.50) <sub>ref</sub>									
Perceived LGB-related traumatic events	0.25 (0.66)		0.32 (0.71)		0.08 (0.27)		0.27 (0.62) <sub>ref</sub>									
Overall perceived discrimination <sup>1</sup>	2.05 (0.55)		2.17 (0.68)		2.12 (0.64)		2.21 (0.65) <sub>ref</sub>									
Sexual orientation-based	0.83 (1.41)*		1.23 (1.58)		0.93 (1.49)		1.32 (1.60) <sub>ref</sub>									
Other factors	2.38 (1.41)		2.37 (1.45)		2.27 (1.49)		2.35 (1.43) <sub>ref</sub>									

Notes: Means and percentages with asterisks are significantly different from the referent group (non-Hispanic Whites).

<sup>1</sup> 0 = Never to 4 = Often.

\* p < .05.

\*\* p < .01.

\*\*\* p < .001

**Table 4**

Mental health and health behaviors by race/ethnicity

Variable	African American (n = 108)				Latina American (n = 91)				Asian American (n = 38)				White American (n = 730)			
	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	
Mental health																
Depression <sup>1</sup>	21.67 (12.35)	22.73 (12.04)	22.38 (11.37)	23.68 (12.65) <sub>ref</sub>												
General anxiety <sup>2</sup>	12.20 (8.54)	14.15 (7.73)	11.97 (7.13)	13.71 (7.57) <sub>ref</sub>												
Social anxiety <sup>3</sup>	14.28 (17.81)	15.06 (17.00)	17.75 (15.09)	18.48 (17.12) <sub>ref</sub>												
PTSD severity <sup>4</sup>	37.86 (17.20)	41.18 (18.43)	28.91 (12.76) <sup>**</sup>	37.41 (17.22) <sub>ref</sub>												
Health-related behaviors																
Alcohol consumption																
Heavy episodic drinking <sup>5</sup>	2.63 (2.38)	3.26 (2.14)	2.57 (2.25)	2.82 (2.14) <sub>ref</sub>												
Peak drinking	0.08 (.08) <sup>**</sup>	0.14 (0.15)	0.12 (0.12)	0.11 (0.13)												
Alcohol-related consequences <sup>6</sup>	7.95 (9.78)	9.92 (10.04)	8.82 (10.01)	7.85 (9.24) <sub>ref</sub>												
Marijuana – current use	1.71 (1.32)	1.59 (1.28)	1.47 (1.22)	1.41 (1.17) <sub>ref</sub>												
Tobacco use																
Ever smoked	73 (67.6%)	67 (73.6%)	25 (65.8%)	538 (73.7%) <sub>ref</sub>												
Current smoking status	46 (63.0%)	43 (64.2%)	13 (52.0%)	356 (66.2%) <sub>ref</sub>												

Notes. Means and percentages with asterisks are significantly different from the referent group (non-Hispanic Whites).

<sup>1</sup> 1 = rarely or none of the time (less than 1 day) to 4 = most or all of the time (5–7 days).

<sup>2</sup> 0 = not at all to 3 = nearly every day.

<sup>3</sup> 0 = not at all to 4 = extremely.

<sup>4</sup> 1 = not at all to 5 = extremely.

<sup>5</sup> 0 = never in a year to 7 = 5 or more times a week.

<sup>6</sup> 0 = No to 1 = Yes.

100' > *d*  
\*\*\*  
'10' < *d*  
\*\*

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