

## SEXUAL MINORITY STRESS, DEPRESSIVE SYMPTOMS, AND SEXUAL ORIENTATION CONFLICT: FOCUS ON THE EXPERIENCES OF BISEXUALS

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The current study answers a need to provide information about bisexual as differentiated from gay/lesbian individuals and to increase understanding of the sexual minority stress experienced by bisexual individuals. Men and women who identified themselves as either bisexual or exclusively Lesbian/Gay (LG) were recruited nationwide and completed questionnaire measures of stressors associated with sexual orientation, openness about sexual orientation, conflict about sexual orientation, and depressive symptoms. Bisexual participants were younger and more

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Participants in this study were part of a larger group of participants whose demographic data are reported in Lewis, Derlega, Berndt, Morris, & Rose (2001). Data from the bisexual participants in this study were not included in the main analyses of the Lewis et al. study. The data focusing on bisexual individuals has not been published previously.

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likely to be female compared to LG participants. Bisexuals reported more conflict regarding their sexual orientation, were less open about their sexual orientation, and reported less minority stress associated with violence and discrimination. There were no differences in depressive symptoms for bisexual vs. LG participants. Bisexuals who were more open reported more conflict about their sexual orientation. Bisexuals who reported more stress associated with violence, harassment, and discrimination also reported more distress. Given the differences that emerged between LG vs. bisexual participants, future research should consider the importance of differentiating bisexual from LG individuals. Furthermore, this research provides evidence that sexual minority stress and openness about sexual orientation are important considerations in understanding the psychological functioning of bisexual individuals.

As a widely and historically maligned minority, lesbian/gay/bisexual (LGB) individuals experience a disproportionate level of mental health concerns (Meyer, 2003) and stress, both overall (Jorm, Korten, Rodgers, Jacomb, & Christensen, 2002) and specifically associated with their sexual orientation (Lewis, Derlega, Berndt, Morris, & Rose, 2001; Lewis, Derlega, Griffin, & Krowinski, 2003). Much of this research has compared LGB individuals to heterosexuals and suggests that adolescents and adults who identify as lesbian, gay, or bisexual are at higher risk for development of depression and associated suicidal ideation and attempts (e.g., Cochran, Sullivan, & Mays, 2003; Gilman et al., 2001; Jorm et al., 2002). A meta-analysis of available literature found that lesbian, gay, and bisexual individuals, compared to heterosexuals, have significantly higher rates of many mental health concerns, notably depression, suicidality, and anxiety (Meyer, 2003). A recent review of research comparing heterosexuals to nonheterosexuals found that nonheterosexuals appear to be at greater risk for anxiety and mood disorders. However, this finding sometimes disappears when demographics are statistically controlled. Nonheterosexual adults are more likely to report past suicidal ideation and attempts and nonheterosexual women appear to be at greater risk for substance use disorders (Herek & Garnets, 2007).

Although bisexual individuals have typically been included in studies of mental health and sexual minority stress, they are usually grouped together with exclusively and predominately gay and lesbian participants. Fox (2003) cautions that when LG and bisexual individuals are combined in research, this obscures information about both groups. If groups can be differentiated by sexual orientation (bisexual vs. gay/lesbian), it is then possible to generalize more ac-

curately research findings for both gay/lesbian individuals and bisexual individuals. The purpose of this paper is to compare bisexual persons to LG persons in terms of demographic variables, sexual minority stress, and depressive symptoms. In addition, sexual minority stress has been examined for LGB individuals collectively and LG individuals separately from bisexual individuals. This paper adds to the literature on sexual minority stress by providing information about bisexual individuals' sexual minority stress and its correlates.

### THE DIVERSITY OF BISEXUALITY

Just as those with a nonheterosexual identity are a diverse group including LG and bisexual individuals, there is also considerable heterogeneity among those who identify as bisexual. Diversity of a sexual minority group can be considered on many levels: sexual attraction, sexual behavior, sexual identity, demographic variables (e.g., sex, race, ethnicity, and relationship status), individual difference variables such as openness about sexual orientation and sexual identity development, as well as experiences as a sexual minority.

There is also evidence that the experiences of bisexuality for women and men are different (Fox, 2003). Most women experience their heterosexual attractions first before their same-sex attraction and behavior. Men, on the other hand, tend to experience their same- and other-sex attractions at about the same time. Women tend to identify as bisexual at a younger age than men and more quickly after their initial same-sex attraction (Fox, 2003). In her qualitative study of the experiences of bisexual men and women, Bradford (2004) found that bisexual men were more strongly affected by gender role limitations and heterosexism. Men experienced more threats such as AIDS and violence. Women tended to express greater needs for affiliation with the lesbian community. Bisexual women found rejection from lesbians to be particularly problematic.

There are many pathways that individuals take on the way to a bisexual identity (Rust, 1993a, 2001b). These include experiencing sexual attraction for, and the capacity to fall in love with, both men and women. Bisexual identity is not necessarily based on equal attraction to both sexes, or on sexual involvement with both men and women (Rust, 2001b). Clearly, the pathways to a bisexual identity are quite varied and one must exercise caution in making generalizations about those who identify as bisexual. Bisexual identity

development is best considered as related to multiple factors, with many possible pathways to an identity that may change or remain as one matures. Some individuals arrive at a bisexual identity from a previous heterosexual identity. Others move from an established gay or lesbian identity toward a bisexual identity. This process of movement does not appear to be linear, nor the identities dichotomous (Fox, 2003). As Rust (1993a) suggests, sexual identity is an ongoing developmental process.

Consistent with this developmental perspective, Diamond (2008) followed 79 women who identified as bisexual, lesbian, or unlabeled over a 10-year period. Two-thirds of the women changed their identity label once over the 10 years and one-third changed their label two or more times. Few bisexual women ended up identifying as either heterosexual or lesbian. Interestingly, the most common identity chosen was unlabeled. Diamond's work provides empirical support that women's sexual orientation may be somewhat fluid and that bisexuality is not simply a stepping stone from heterosexuality to lesbianism. Diamond concludes that, "the distinction between lesbianism and bisexuality is a matter of degree, rather than kind" (p. 5). Her work suggests that those who identify as bisexual are a heterogeneous group of individuals whose sexual identification may change over time.

Sexual experience/behavior and sexual identity do not always align in the same direction for those who identify as bisexual (Galupo, Sailer, & St. John, 2004). Ketz and Israel (2002) surveyed women who had sexually intimate relationships in the past year with men and women (sexual behavior) and who were asked to identify themselves as lesbian, heterosexual, or bisexual (sexual identity). Among 69 participants, almost three-quarters (72%) identified as bisexual with congruent identity and behavior. The remaining 28% reported incongruent identity and behavior, with eight (12%) identifying as heterosexual, and 11 (16%) identifying as lesbian. Contrary to expectations there was no difference in perceived wellness for women who reported congruent vs. incongruent sexual behavior and identity (Ketz & Israel, 2002). Similarly, among male and female college students who identified as heterosexual, 29 (32%) of women reported feelings for both same- and other-sex partners and 12-19% of the men reported such feelings. The majority of their sample did not act on these feelings, however (Hoburg, Konik, Williams, & Crawford, 2004).

## MENTAL HEALTH AND BISEXUALITY

In spite of clear evidence of mental health differences between LGB individuals and heterosexual individuals (e.g., Cochran et al., 2003; Gilman et al., 2001; Jorm et al., 2002), there is relatively little information regarding differences between heterosexuals and bisexuals or differences between LG individuals and bisexual individuals. Few studies have compared mental health characteristics of bisexual participants with LG participants and the existing research findings are mixed. Jorm et al. (2002) found that bisexuals reported more anxiety, depression, and negative affect than did LG participants. The bisexual group also reported more stressful childhood events and more frequent financial problems compared to the LG group. There was no difference between LG participants and bisexuals in terms of suicidal thoughts and actions. In contrast, Balsam, Beauchaine, Mickey, and Rothblum (2005) expected that bisexuals would show greater psychological distress than LG women and men, but found the only difference between these groups was in self-injurious behavior.

Another study utilized retrospective chart review to examine the mental health concerns of lesbian and bisexual women (Rogers, Emanuel, & Bradford, 2003). Rogers et al. (2003) reported that lesbians and bisexual women did not differ in terms of psychiatric symptoms, substance abuse, or areas of functioning. Bisexual women reported less suicidal ideation at the time of intake. Bisexual women reported more difficulties relating to social support and health care availability. In contrast, Rothblum and Factor (2001) found that bisexual women had poorer overall mental health compared to heterosexual women and lesbians.

Although Rogers et al. (2003) found no substance abuse difference between lesbians and bisexual women, Ford and Jasinski (2006) noted that a greater percentage of college bisexual women reported marijuana use and other illicit drug use in the past 30 days compared to the percentage of college lesbians who reported such use. A similar pattern emerged for college bisexual vs. gay men using marijuana and other illicit drugs (Ford & Jasinski, 2006). Others found similar results in that more bisexual women reported using illicit substances during the past year compared to lesbians (Koh & Ross, 2006).

In addition to substance use, lesbian, bisexual, and heterosexual women were compared across a number of domains including

seeking treatment for depression, a history of an eating disorder, and experiencing stress as a teenager and adult (Koh & Ross, 2006). Lesbians were more likely than bisexual and heterosexual women to seek treatment for depression. Bisexual women were more likely to have an eating disorder than lesbians. In spite of some important differences between lesbians and bisexual women, there were many more similarities between lesbians and bisexuals than there were differences. Of particular interest to this paper is that there were no differences between lesbians and bisexual women for overall stress experienced as a teenager or as an adult (Koh & Ross, 2006).

### DISCLOSURE, MINORITY STRESS, AND BISEXUALITY

It is not enough to describe mental health differences as a function of sexual orientation; we must work to understand *why* these differences occur. The role of disclosure about sexual orientation is a critical piece of understanding the relationship between sexual orientation and mental health. Herek and Garnets (2007) highlight the potential benefit for LGB individuals that may be derived in developing a collective identity with a sexual minority culture. This affiliation may provide resources such as social and emotional support. There is some empirical support for the relationship between openness and well-being (Lewis et al., 2001; Morris, Waldo, & Rothblum, 2001). Others, however, (Balsam & Mohr, 2007; Lewis et al., 2003) have not found a relationship between openness and well-being. Koh and Ross (2006) suggest an interesting interaction between openness and sexual orientation on reports of recent suicidal ideation. In their study, bisexual women were significantly less "out" than their lesbian counterparts with 49% of the bisexual women reporting being out to more than 50% of their family, friends, and co-workers compared to 71% of the lesbians. Bisexuals who disclosed their sexual orientation more often reported recent suicidal ideation compared to those who did not disclose their sexual orientation. In contrast, lesbians who did not disclose their sexual orientation more often reported suicidal ideation compared to lesbians who disclosed their sexual orientations. Thus, the well-being of sexual minority individuals may be related to how open they are about their sexual orientation and this may vary with sexual orientation.

A number of authors (e.g., Meyer, 2003; Herek & Garnets, 2007) have emphasized the important role that minority stress plays in the mental health of nonheterosexuals. In contrast to overall life stress

or daily hassles, minority stress encompasses externally stressful events, expectations of such events, and internalization of society's negative attitudes (Meyer, 2003). Thus, both internalized conflict about one's sexuality as well as external events such as rejection, violence, and discrimination may be critical components in understanding the mental health of sexual minorities. One's experiences with violence and discrimination may be particularly relevant to mental health functioning (Alexander, 2002). In fact, Mays and Cochran (2001) found that the relationship between mental health and sexual orientation was largely explained by nonheterosexuals' experiences with discrimination. For example, Weber (2008) found that LGB individuals with a substance use disorder experienced more heterosexist events and reported more internalized homophobia compared to LGB individuals without a substance use disorder, although this was a relatively small effect size. Of note, there was no interaction between sexual orientation (LG vs. bisexual) and substance use disorder on internalized homophobia or heterosexist events (Weber, 2008). Israel and Mohr (2004) concluded that bisexual men and women experience some prejudice similar to gay men and lesbians due to their same-sex identification and/or behavior. They suggest extending the concept of homonegativity to binegativity. Those who identify as bisexual may experience rejection from gay men and lesbians who question whether bisexuality is a legitimate sexual identification. The diversity of experiences within any group of bisexuals may be associated with stigmatization from the LG community, the heterosexual community, or both.

The experience of sexual minority stress has been proposed as one way to understand the greater prevalence of psychological distress for LGB individuals (Meyer, 2003). A question that arises in this context is whether minority stress experiences may be different for LG vs. bisexual individuals. Balsam and Mohr (2007) examined identity, sexual orientation stigma, and well-being for bisexuals vs. LG participants. They found that bisexual participants reported more identity confusion and engaged in less self-disclosure and fewer community activities compared to LG women and men. There was no difference in internalized homophobia between bisexual individuals and LG individuals and there were very few differences between male and female participants. Balsam and Mohr (2007) also found that there was no difference in the relationship between well-being and LGB identity, openness, and connection to the community for bisexual vs. LG participants. In contrast, others have found that

gay men and lesbians reported more experiences of heterosexism and more internalized homophobia compared to bisexual individuals (Weber, 2008) and more conflict about their sexuality (Moore & Norris, 2005).

Negative attitudes toward bisexuals and bisexuality can also contribute to sexual minority stress for bisexuals. Herek (2002) found that heterosexuals had more negative attitudes toward bisexuals than toward gay men or lesbians. Similarly, lesbians and gay men who questioned whether bisexuality is a legitimate label reported they were less willing to date or befriend a bisexual person (Mohr & Rochlen, 1999). Rust (1993b) found that lesbians generally perceived moderate differences between themselves and bisexuals, but did not perceive themselves to be substantively different from bisexual women. Lesbians perceived differences in terms of acceptance vs. denial of sexuality, motivation to "pass" as heterosexuals, and whether bisexuality was a transitional phase. These negative attitudes from both the LG and heterosexual community could be especially problematic for bisexual individuals. Greene (2003) commented on the tension that may exist between those with a bisexual identity and those with a LG identity. Biphobia, akin to homophobia, may manifest itself in exclusion of bisexuals from sexual minority communities. There may be additional assumptions made about the bisexual as a promiscuous person due to attraction to same- and other-sex partners. Ironically, and unfortunately, LG individuals who appropriately protest when others judge or define them by their sexual identity or behavior may do the same thing to bisexual persons (Greene, 2003).

The purpose of this research was to examine sexual minority stress for bisexual individuals and to consider their experiences compared to gay men and lesbians. In addition, we compared openness about sexual orientation and self-reported depressive symptoms of these two groups. Based on the literature to date, a number of important questions emerged. Do bisexual individuals experience more minority stress, depressive symptoms, and sexual orientation conflict than LG individuals? For bisexual individuals, how do openness about sexual orientation and minority stress relate to conflict about one's sexual orientation and depressive symptoms? Finally, how do various types of sexual orientation stress (e.g., discrimination, violence, family stress, concerns about visibility) relate to depressive symptoms for those who identify as bisexual?



We hypothesized that bisexual men and women would report more sexual minority stress and more sexual orientation conflict compared to exclusively LG participants. Although the literature is clear about differences in psychiatric symptoms and mental health between LGB vs. heterosexual participants, it is much less clear about what one should expect regarding mental differences between LG individual and bisexual individuals. Therefore we examined depressive symptoms without any *a priori* hypothesis. Finally, based on previous literature, we expected bisexual participants to be less open about their sexual orientation compared to LG participants. We also expected sexual minority stress to be related to depressive symptoms for bisexuals.

## METHOD

### PARTICIPANTS AND PROCEDURE

Participants in this study described themselves as either exclusively homosexual ( $n = 445$  men and 276 women, total  $n = 727$ ), or bisexual ( $n = 31$  men, 45 women, 2 gender unspecified;  $n = 78$ ). The self-designated labels of exclusively homosexual and bisexual are assumed to have a variety of meanings depending on the individual. The sample was mostly white (90%). Median income level was \$15,000-29,999. The sample was fairly open with regard to sexual orientation with 34% of the sample reporting, "I selectively tell people I trust," 46% reporting, "I am not too worried about people knowing," and 14%, reporting, "I never hesitate to tell people I trust." Three percent of the sample indicated, "I don't want people to know," and 1.7% reported, "I work very hard to hide it." Additional demographic data for the sample, separated by sexual orientation are presented in Table 1.

Participants were recruited via flyers placed in LGB bookstores nationwide, college campus LGB student organizations, and advertisements in LGB newspapers in Virginia. These participants completed a questionnaire and returned it anonymously to us at their expense. Additional participants were recruited at a gay and lesbian festival in St. Louis. These participants completed their questionnaires on site and then returned the forms anonymously to a contact person at the festival. The exclusively LG participants' data were included in a previous work (Lewis et al., 2001) that described the development and validation of a measure of sexual minority stress.

The data from the bisexual participants were excluded from that study, although their demographic data were included.

Participants completed a 70-item Measure of Sexual Minority Stress (Lewis et al., 2001), the 20-item CES-D (Radloff, 1977), a demographic questionnaire, and a question pertaining to openness about one's sexual orientation (Franke & Leary, 1991).

## MEASURES

*Center for Epidemiological Studies Depression Scale (CES-D).* The CES-D (Radloff, 1977) is a 20-item questionnaire designed to assess depressive symptoms in nonclinical populations. The participant is asked to report how frequently he or she felt or behaved a certain way during the past week on a 4-point scale ranging from 0 (rarely or none of the time) to 3 (most or all of the time). Higher scores indicate greater depressive symptoms. The CES-D has acceptable internal consistency, test-retest reliability, and validity (Radloff, 1977). The coefficient alpha in this study was .92, indicating good internal consistency.

*Sexual Minority Stress.* To assess sexual minority stress a modified version of the Measure of Gay-Related Stress (MOGS; Lewis et al., 2001) was used. Although participants had the option to respond to all 70 items that comprised the original measure, only those items that referred generically to sexual orientation were used in the analyses for this paper. Items that specifically mentioned the words Gay, Lesbian, or Homosexual were excluded. Respondents were asked to rate the stress associated with each potential sexual minority stressor using a scale from 0 (not applicable or no stress) to 3 (severe stress). Higher scores reflect more sexual minority stress.

The following modified subscales were used: (1) Violence and Harassment—fears of, or actual occurrence of, violence and harassment (5 items, e.g., Threat of violence due to my sexual orientation,  $\alpha = .88$ ); (2) General Discrimination - mental health, housing, and social service discrimination (3 items, e.g., Mental health discrimination due to my sexual orientation,  $\alpha = .72$ ); (3) Work Discrimination -worries about, or actual job loss or harassment in the workplace (6 items, e.g., Potential job loss due to my sexual orientation,  $\alpha = .83$ ); (4) Visibility - concerns about hiding one's sexual orientation and potential rejection if others found out (7 items, e.g., Loss of friends due to my sexual orientation and Keeping my orientation

secret from family and friends,  $\alpha = .85$ ); and (5) Sexual Orientation Conflict (2 items: Difficulty accepting my sexual orientation and Mixed feelings about my sexual orientation,  $\alpha = .72$ ). In order to create a Family subscale, we combined two original subscales related to family: Family Reactions (e.g., My family's lack of understanding about my sexual orientation) and Family Reactions to Partner (e.g., Introducing a new partner to my family). The original subscales had a correlation of .58 and the new 12-item subscale had an  $\alpha$  of .89. Thus, there were six scales related to sexual minority stress.

*Demographic Information.* We collected information about respondents' age, race, and openness about sexual orientation. Openness about their sexual orientation and degree of social involvement with other gay individuals were assessed on a five-point scale (Franke & Leary, 1991), ranging from 1 (I work very hard to hide it) to 5 (I never hesitate to tell people). In addition, respondents were asked to indicate if they were in a relationship at the time they completed the survey and whether they belonged to any LGB organizations.

## RESULTS

### DIFFERENCES BETWEEN GAY MEN/LESBIANS AND BISEXUALS

Given the relatively small sample of bisexuals, we treated missing data with pair-wise deletion for all analyses. Initially we compared demographic characteristics of the two sexual orientation groups. A one-way Analysis of Variance (ANOVA) revealed that age varied as a function of sexual orientation,  $F(1, 796) = 35.18, p < .001, \eta^2 = .04$ . LG individuals were older compared to those who were bisexual ( $M_s = 33.2$  years vs. 26.6 years). A greater percentage of women identified as bisexual (14%) compared to men (6.5%),  $\chi^2(1, N = 797) = 12.52, p < .001$ . We also compared White participants to Black participants and found that there are a greater proportion of Blacks (22%) identified as bisexual compared to Whites (9%),  $\chi^2(1, N = 789) = 12.49, p < .001$ . Since our sample was approximately 90% White, one must interpret the findings regarding ethnic differences with caution. There were no differences between the sexual orientation groups in terms of participation in LGB organizations or relationship status (see Table 1).

TABLE 1. Demographic Characteristics by Sexual Orientation

Sexual Orientation	Relationship Status		Sex		Membership in LGB Organizations		Race	
	In Relationship	No Relationship	Male	Female	Belong to Group	No Group Membership	White	Black
LG	383 (55.1%)	312 (44.9%)	445 (61.7%)	276 (38.3%)	379 (54.6%)	315 (45.4%)	647 (91%)	64 (9%)
Bisexual	36 (48.6%)	38 (51.4%)	31 (40.8%)	45 (59.2%)	37 (49.3%)	38 (50.7%)	61 (78.2%)	17 (21.8%)

Note. Percentages are within sexual orientation group.

TABLE 2. Mean Sexual Minority Stress by Sex and Sexual Orientation

	General Discrimination		Work Discrimination		Sexual Orientation Conflict		Family Stress		Violence/Harassment		Visibility													
	B		LG		B		LG		B		LG													
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD												
M	.55	.73	.35	.63	.85	.73	.72	.79	.67	.83	1.0	1.0	.97	.68	1.0	.77	1.2	.84	.93	.85	1.3	.69	1.4	.89
W	.60	.76	.36	.44	1.0	.85	.61	.63	.52	.77	1.2	1.0	1.2	.75	.97	.65	1.1	.80	.86	.62	1.4	.73	1.5	.74
Total	.57	.74	.36	.52	.91	.78	.66	.70	.61	.81	1.2	1.0	1.0	.71	1.0	.70	1.1	.83	.89	.72	1.3	.71	1.5	.80

Note. M = Men; W = Women; LG = Lesbian/Gay; B = Bisexual.

A 2 (sex of participant) by 2 (LG vs. bisexual) Analysis of Covariance (ANCOVA) was done for participants self-reported openness about sexual orientation using age as a covariate. There was a main effect of sexual orientation,  $F(1, 762) = 21.15, p < .001, \eta^2 = .03$ . LG individuals reported they were more open about their sexual orientation ( $M = 3.73$ ) compared to bisexuals ( $M = 3.25$ ). Neither the main effect of sex of participant nor the interaction was significant.

To compare minority stress for LG individuals to bisexual individuals, a 2 (sex of participant)  $\times$  2 (sexual orientation) Multivariate Analysis of Covariance (MANCOVA) was conducted with age as the covariate. Dependent variables were general discrimination, family stress, violence/harassment, work discrimination, stress associated with visibility/being out, and sexual orientation conflict. Table 2 presents means as a function of sexual orientation by sex of participant. This analysis revealed a multivariate main effect of sexual orientation,  $F(6, 778) = 8.03, p < .001, \eta^2 = .06$  and a significant effect for the age covariate,  $F(6, 778) = 4.03, p < .01, \eta^2 = .03$ . There was no main effect of sex of participant,  $F(6, 778) = .69, ns$ , nor was there a significant sexual orientation by sex of participant interaction,  $F(6, 778) = 2.02, ns$ . Follow-up univariate ANOVAs indicated main effects of sexual orientation on sexual orientation conflict, general discrimination, work discrimination, and violence/harassment. Bisexual participants reported more conflict about their sexual orientation,  $F(1, 783) = 28.87, p < .001, \eta^2 = .03$  ( $M_s = 1.14$  for bisexuals vs.  $0.60$  for L/G), and less stress related to general discrimination,  $F(1, 783) = 4.45, p < .05$  ( $M_s = .38$  for bisexuals vs.  $.57$  for L/G),  $\eta^2 = .01$ , violence/harassment,  $F(1, 783) = 5.41, p < .05$  ( $M_s = .89$  for bisexuals vs.  $1.14$  for L/G),  $\eta^2 = .01$ , and work discrimination,  $F(1, 783) = 4.00, p < .05$  ( $M_s = .73$  for bisexuals and  $.92$  for L/G),  $\eta^2 = .01$ . There were no sexual orientation differences in family stress or stress associated with visibility.

#### DEPRESSIVE SYMPTOMS FOR LG VS. BISEXUAL INDIVIDUALS

A 2 (sex of participant) by 2 (LG vs. Bisexual) Analysis of Covariance (ANCOVA) was done for participants' CES-D scores, with age as a covariate. There were no significant main effects or interactions. Bisexuals ( $M = 20.23$ ) did not report more depressive symptoms compared to LG individuals ( $M = 18.38$ ). There has been controversy about the degree to which the CES-D can be used to classify

individuals as depressed. Radloff (1977) did not designate clinical cutoff scores. Most would agree that depression is a complex syndrome that is best assessed in a comprehensive fashion rather than by a 20-item paper and pencil test. Some have suggested, however, that a cutoff score of 27 or 28 can be used to designate clinically significant symptoms (e.g., Geisser, Roth, & Robinson, 1997). In order to compare severity of depressive symptoms in LG vs. bisexual individuals, we classified our participants into high (CES-D score >28) and low depressive symptom CES-D score  $\leq 28$ . First, a two-way chi-square analysis was done to see if there were differences in depression classification for the LG vs. bisexual participants. Twenty percent of the LG individuals were classified as depressed using this criterion and 24% of the bisexual participants were classified as depressed,  $\chi^2(1, N = 750) = .27, ns$ . Given the literature that suggests that there are sex differences in depressive symptomatology, we then conducted a 3-way chi-square analysis in which we considered sex of the participant in addition to sexual orientation and depression group. When men and women were considered separately, the bisexual men were marginally more likely to be classified as depressed (34%) compared to the gay men (21%),  $\chi^2(1, N = 447) = 2.9, p < .10$ . Bisexual women (16%) were no more likely to be classified as depressed compared to lesbians (20%),  $\chi^2(1, N = 296) = .36, ns$ .

#### SEXUAL MINORITY STRESS AND DEPRESSIVE SYMPTOMS IN BISEXUALS

Finally, we examined the degree to which various components of minority stress are related to sexual orientation conflict and to depressive symptoms in bisexual participants (see Table 3). Bisexual men and women who reported more stress associated with discrimination (general and work) and those who reported more stress associated with being "out" and violence and harassment also reported more depressive symptoms. Openness about sexual orientation was not related to CES-D score. All types of sexual minority stressors, with the exception of general discrimination, were positively associated with sexual orientation conflict. Openness was inversely related to sexual orientation conflict. Computing partial correlations controlling for age and sex of participant did not appreciably change these results.

TABLE 3. Correlations between Sexual Minority Stress and CES-D and Sexual Orientation Conflict for Bisexuals

Minority Stress Type	CES-D	Sexual Orientation Conflict
General Discrimination	.28*	.07
Family Stress	.14	.48***
Violence	.20+	.28*
Visibility	.31*	.63***
Work Discrimination	.34**	.29*
Openness	-.18	-.38***

Note. + $p < .10$ ; \* $p < .05$ ; \*\* $p < .01$ .

## DISCUSSION

Much of the research on sexual minority individuals includes samples of lesbians, gay men, and bisexuals. Although bisexual individuals share characteristics with exclusively LG individuals, there may be important differences that are masked when these groups are combined. The purpose of this study was to compare the demographic characteristics, sexual minority stress, sexual orientation conflict, and depressive symptoms of exclusively LG participants and bisexual participants. In addition, we extended the sexual minority stress literature by examining bisexuals' experiences separately from gay men and lesbians.

### GAY MEN AND LESBIANS COMPARED TO BISEXUALS

In our sample, bisexual participants were more likely to be female and were younger compared to the LG participants. A greater proportion of our small sample of Black participants classified themselves as bisexual compared to gay or lesbian. As expected, and consistent with previous research, bisexual participants were less open about their sexual orientation compared to exclusively LG participants and also experienced more sexual orientation conflict (cf. Balsam & Mohr, 2007; Koh & Ross, 2006; Morris et al., 2001, Moore & Norris, 2005; Weber, 2008). There were no sexual orientation differences in terms of membership in LGB groups or whether participants were in a relationship at the time they completed the study.

When compared to LG persons, bisexual individuals reported more sexual orientation conflict and less stress associated with vio-

lence/harassment and discrimination. Although we had predicted differences in overall minority stress, the direction of these findings is understandable. Bisexual individuals who are also less open about their sexual orientation are less likely to be overt targets of violence and discrimination. If one is not open about one's sexual orientation, although this may create internal conflict, exposure to external stigmatizing events is decreased. Our finding that bisexuals experience less violence and discrimination stress is consistent with Weber (2008) who found that bisexual individuals reported experiencing fewer heterosexist events. Compared to LG individuals, our sample of bisexuals reported more sexual orientation conflict whereas the bisexuals in Weber (2008) reported less internalized homophobia and the bisexuals in Balsam and Mohr (2007) reported more identity confusion. There were no differences in internalized homophobia between LG and bisexuals in Balsam and Mohr (2007). These mixed results may be related to how conflict about sexual orientation and identity are assessed or could be related to the diversity of experiences that characterize bisexuals. Balsam and Mohr's (2007) findings suggest that identity confusion is a separate construct from internalized homophobia. Our two-items related to sexual orientation conflict capture both of these aspects. Bisexuals' minority stress, including internalized homophobia and conflict about sexual orientation, may be related to identity development and identification with experiences of same-sex individuals or other-sex individuals (Weber, 2008). As sexual identity and identification are developmental processes and may change over time, a sample of bisexual participants assessed at a single point in time likely includes individuals in various stages of identity development and identification.

There were no differences between LG and Bisexual individuals in CES-D scores suggesting that overall depressive symptomatology is not related to sexual orientation. This is consistent with others (e.g., Balsam et al., 2005; Koh & Ross, 2006; Rogers et al., 2003) who suggest that there are relatively few differences between bisexuals and LG women and men. Our results contrast, however, with those (e.g., Jorm et al., 2002; Rothblum & Factor, 2001) who have found that bisexual individuals experience more distress compared to those who are exclusively gay or lesbian.

Another question of interest in this research was the degree to which bisexual individuals would be more likely to experience clinical levels of depressive symptoms. Bisexual men were marginally more likely than gay men to be classified as depressed with



approximately one-third of the bisexual men classified as depressed compared to 21% of the gay men. Although there has been substantial data that suggests that gay men are at increased risk of psychiatric disorders compared to heterosexual men (Cochran et al., 2003; Gilman et al., 2001), our data would suggest that bisexual men may be at even greater risk. For the women, there was no relationship between classification as depressed and sexual orientation, with 16-20% of women in both groups classified as depressed. We must urge caution in interpreting these findings, however, given the small sample size of bisexuals in this study.

#### SEXUAL MINORITY STRESS, OPENNESS, SEXUAL ORIENTATION CONFLICT, AND DEPRESSIVE SYMPTOMS IN BISEXUALS

For bisexual participants in our study, openness was not related to depressive symptoms but was related to sexual orientation conflict. Bisexual participants who were more open reported less conflict about their sexual orientation. All components of sexual minority stress were not similarly related to sexual orientation conflict and dysphoria. Concerns about discrimination at work, "being out," and violence/harassment were related to increased conflict and dysphoria. Concern about discrimination in general was related to increased depressive symptoms but not sexual orientation conflict. Stress about one's family was related to more sexual orientation conflict but not to dysphoria. Our work offers evidence that exposure to stigmatizing environments in which one experiences stressful events related to sexual orientation is associated with poorer well-being for bisexuals. Although status as a sexual minority is associated with negative emotional states, the precise nature of this association is far from clear.

We found mixed support for the relationship between openness and well-being. Openness was not related to dysphoria but was related to sexual orientation conflict. Previous literature has also yielded mixed results regarding the relationship between openness and well-being for sexual minorities with some suggesting that openness is associated with better mental health (e.g., Lewis et al., 2001; Morris et al., 2001) whereas others have not found this relationship (e.g., Balsam & Mohr, 2007; Lewis et al., 2003). Perhaps, for some sexual minorities, openness may enhance well-being due to the available social and community support that is available when

one is out. On the other hand, the protective factors of affiliation with the sexual minority community may be negated by increased exposure to violence, harassment, and discrimination. In addition, bisexual individuals may have difficulties identifying with a collective community because they do not feel they belong to the heterosexual community or the LG community. As Koh and Ross (2006) suggest, bisexual women may feel stigmatized by both the lesbian and heterosexual communities. Even if there are potential benefits from affiliation with a sexual minority community, a bisexual community may not be well-defined if it even exists (see Rust, 2001a).

Although bisexual participants in our study were less open than their LG counterparts, they did not appear to be significantly different in their connection to the sexual minority community. This is in contrast to Balsam and Mohr (2007) who found that bisexuals reported lower subjective connection to the sexual minority community. In that study, connection was assessed by directly asking participants how connected they felt to the LGB community. In our research we used a more indirect route and inferred connection by behaviors such as belonging to an organization. It is certainly possible that individuals may subjectively feel connected to a community without engaging in behavioral activities such as belonging to a group. It is important for future researchers to assess the multifaceted nature of psychological connection to a sexual minority community (see Proescholdbell, Roosa, & Nemeroff, 2006).

## LIMITATIONS AND FUTURE DIRECTIONS

Some of the mixed findings that characterize the literature on sexual minorities may result from the heterogeneity of sexual minorities as a group, and the diversity of experiences of those who endorse a bisexual identity. Our participants identified themselves by endorsing a single item, bisexual. As Fox (2003) points out, how one identifies sexual orientation may be related to a number of factors including current sexual behavior, current relationship, fears of being labeled as gay or lesbian, and felt loyalty to the LG community. In our study, we cannot determine what factors individuals considered as they responded to this question. As a result, although we reduced the heterogeneity of the LG sexual minority group by separating bisexuals, a diverse group of bisexuals likely remained. Because of the multiple pathways to, and meanings of, bisexuality

(e.g., Rust, 1992, 1993a, 2001b) those who do identify as bisexual may be a very diverse group in terms of their experiences.

The assessment of sexual identity and identification is a complex issue that requires thoughtful consideration. When individuals are clustered into a single nonheterosexual group, this includes those with a collective sexual orientation identity and those who consider their sexual identity primarily in personal terms (Herek & Garnets, 2007). Also, those who report sexual contact with same-sex partners may not actually identify as lesbian, gay, or bisexual (Cochran & Mays, 2006).

How individuals classify themselves as gay, lesbian, or bisexual is multiply determined by sexual identity, experiences, attractions, and behavior. For example, Hellman, Sudderth, and Avery (2002) assessed sexual identity using multiple measures including the Kinsey scale (e.g., exclusively homosexual, predominately homosexual, incidentally heterosexual, predominately homosexual but more than incidentally heterosexual, equally heterosexual and homosexual) and a self-identification item (heterosexual vs. homosexual vs. bisexual vs. other). Most LGB participants in their study identified as being either predominately or exclusively homosexual, according to the Kinsey scale, but then 61.9% described themselves as homosexual, 23.8% as bisexual, 3.2% as heterosexual, and 11.1% as other. Future researchers should consider carefully how they identify nonheterosexual participants and how participants identify themselves (see Sell's, 2007, review of measurement of sexual orientation).

We must acknowledge other limitations of this study. Our sample was mostly White and the number of bisexual participants was small compared to the exclusively LG participants. Our small sample of bisexuals did not allow us to examine the diversity of experiences that we believe characterizes bisexuals. Future research, with larger samples of bisexuals, can assess whether openness moderates the relationship between sexual minority stress and psychological well-being and the interaction of sexual orientation and outness on physical and psychological outcome measures.

Furthermore, as is unfortunately often the case in sexual minority research, we did not gather information from those who are more closeted or are ethnically diverse. We measured only one aspect of mental health (depressive symptoms, using the CES-D) and used two items to assess sexual orientation conflict. Our study was also cross-sectional so we missed out on the opportunity to examine change in sexual orientation or identity over time, as well as

changes in stress over time as they may relate to sexual orientation. In addition, the correlational design did not allow us to tease out whether minority stress precedes dysphoria, or the reverse occurs, or whether both dysphoria and stress are related to other variables.

Our results emphasize the importance of studying LG persons and bisexuals as separate groups. We found important demographic differences between these groups as well as differences in minority stress and openness. Those who identify as bisexual may have a unique experience that is important to understand as distinct from heterosexuals and exclusively LG individuals. Both groups, however, experience sexual minority stress that is associated with depressive symptoms. Bisexuals could be considered a double-minority when compared to the heterosexual majority in our society and also when compared to the exclusively LG majority within a sexual minority community. Future research should focus on understanding the various contributors to bisexuals' psychological functioning. Important variables to consider include outness/disclosure about sexual orientation, sexual identity (self-perception), sexual behavior, clear definitions of bisexuality, multiple psychological outcome measures, and measures of sexual minority stress. Obtaining a larger sample of bisexual individuals will allow for multiple variables to be considered simultaneously and for important interactions with openness to be investigated.

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