Depression and Sexual Orientation During Young Adulthood: Diversity Among Sexual Minority Subgroups and the Role of Gender Nonconformity

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ABSTRACT

Sexual minority individuals are at an elevated risk for depression compared to their heterosexual counterparts, yet less is known about how depression status varies across sexual minority subgroups (i.e., mostly heterosexuals, bisexuals, and lesbians and gay men). Moreover, studies on the role of young adult gender nonconformity in the relation between sexual orientation and depression are scarce and have yielded mixed findings. The current study examined the disparities between sexual minorities and heterosexuals during young adulthood in concurrent depression near the beginning of young adulthood and prospective depression 6 years later, paying attention to the diversity within sexual minority subgroups and the role of gender nonconformity. Drawn from the National Longitudinal Study of Adolescent Health (N = 9,421), we found that after accounting for demographics, sampling weight, and sampling design, self-identified mostly heterosexual and bisexual young adults, but not lesbians and gay men, reported significantly higher concurrent depression compared to heterosexuals; moreover, only mostly heterosexual young adults were more depressed than heterosexuals 6 years later. Furthermore, while young adult gender nonconforming behavior was associated with more concurrent depression regardless of sexual orientation, its negative impact on mental health decreased over time. Surprisingly, previous gender nonconformity predicted decreased prospective depression among lesbians and gay men whereas, among heterosexual individuals, increased gender nonconformity was not associated with prospective depression. Together, the results suggested the importance of investigating diversity and the influence of young adult gender nonconformity in future research on the mental health of sexual minorities.

KEY WORDS: sexual orientation, gender nonconformity, mental health, sexual minority, depression, young adulthood.

INTRODUCTION

Depression is a leading cause of disability that occurs in approximately 1 in 10 U.S. adults (Centers for Disease Control and Prevention, 2010). Previous research suggested that individuals with a sexual minority orientation are at higher risks for mental health problems, including depression, than their heterosexual counterparts, presumably because of a complex interplay of minority stress mechanisms such as stigma, discrimination, and victimization toward this population (Cochran & Mays, 2000a, 2000b; Gilman et al., 2001; Herek & Garnets, 2007; Institute of Medicine [IOM], 2011; King et al., 2008; Marshal et al., 2011; Meyer, 2003; Russell & Joyner, 2001; Saewyc, 2011), which has a small to large effect on depression among sexual minorities (e.g., Collier, van Beusekom, Bos, & Sandfort, 2013; Lehavot & Simoni, 2011; Ryan, Huebner, Diaz, & Sanchez, 2009; Toomey, Ryan, Diaz, Card, & Russell, 2010). Other work has explored more nuanced differences within the sexual minority population, and suggests that not all sexual minority people are at equally high risks for depression and gender nonconformity may play a role in the health disparity in depression.

Diversity Within the Sexual Minority Population

Whereas some researchers frequently characterize LGB and other sexual minority individuals as one disadvantaged social group (e.g., Meyer, 2003), others realize that not all sexual minorities are alike (Diamond, 2003; Savin-Williams, 2005, 2008). Among sexual minorities, individuals experience a spectrum of sexual attractions, relationships, and activities, which has distinguished them into subgroups. Apart from the traditional 3-category system that classifies same-sex oriented people as “gay,” “lesbian,” or “bisexual” (Herek, Norton, Allen, & Sims, 2010; Russell, Clarke, & Clary, 2009), some more nuanced identities have emerged to capture the “in-between” individuals who possess unique sexual profiles, including the “mostly

heterosexual" label. Self-reported other-sex attraction attenuates significantly from exclusively heterosexual to mostly heterosexual, bisexual, and lesbian/gay identified individuals, while same-sex sexual and romantic attraction accentuates significantly between adjacent groups (Savin-Williams & Vrangalova, 2013; Vrangalova & Savin-Williams, 2012); similarly, among women, sexual fantasy is distributed on a continuum from exclusively other-sex to exclusively same-sex orientated (Thompson & Morgan, 2008). Distinctions in sexual relationships and number of same-sex and other-sex partners are not as obvious as those in sexual attractions and fantasy, possibly due to the social constraints of availability of sexual partners, but the general gradational pattern looks similar (Thompson & Morgan, 2008; Vrangalova & Savin-Williams, 2012).

Sexual minorities have not only diverse sexual experiences, but also diverse stigma-related and minority stress experiences. Based on a sample of 662 self-identified gay, lesbian, and bisexual men and women from a U.S. national study, Herek (2009) found that gay men were the most likely to report violence and property crimes, and lesbians and gay men were at significantly higher risks for employment and housing discrimination than bisexual individuals. In another study, Lewis, Derlega, Brown, Rose, and Henson (2009) found that bisexuals experienced less violence and discrimination associated with sexual orientation, perhaps due to their ability to "pass" as heterosexual by having a previous or current other-sex partners. Yet, this study also found that bisexuals had more inner conflict because of their sexual orientation and were less willing to disclose their sexual orientation to others. This may be a result of marginalization by both the gay community and heterosexuals, who often believe that bisexuality does not exist and is simply a pathway to becoming heterosexual or gay (Israel & Mohr, 2004). With regard to mostly heterosexuals, a systematic review found that they experienced

moderately more victimization than heterosexuals, but less abuse than bisexuals (Vrangalova & Savin-Williams, 2014).

These different social experiences may result in dissimilar mental health outcomes within the sexual minority population (e.g., Herek et al., 2010). Indeed, self-identified bisexuals, especially bisexual women, seem to have the largest disparities with heterosexuals than other sexual minority groups in depression and suicidality (Marshal et al., 2013). In addition, bisexuals were more likely than lesbians and gay men to report mood disorders, negative affect, as well as self-harm behavior (Bostwick, Boyd, Hughes, & McCabe, 2010; Conron, Mimiaga, & Landers, 2010). Mostly heterosexual people tend to be less healthy than heterosexuals, but healthier than bisexuals. For example, in a review of 60 studies covering 22 samples from 5 Western countries, Vrangalova and Savin-Williams (2014) reported that mostly heterosexuals were slightly to moderately more depressed than heterosexuals during both short-term and long-term assessments, but were less depressed than bisexuals. Unfortunately, few studies have compared the mental health between mostly heterosexuals and lesbians and gay men. In summary, while in general sexual minority people are at elevated risks for mental health problems, such as depression, compared to their heterosexual counterparts, there is great variation within this group; bisexual individuals may experience a larger disparity in depression than mostly heterosexuals and lesbians and gay men do.

The Role of Young Adult Gender Nonconformity

Lesbians and gay men, and maybe other sexual minority individuals, are more gender nonconforming than their heterosexual counterparts not only in childhood (Bailey & Zucker, 1995), but also in adulthood (Lippa, 2005). In other words, gender expressions of gay men and lesbian women are incongruent with the social and cultural norms prescribed to people of their

own sex (Alanko et al., 2010; Bailey & Zucker, 1995; Cardoso, 2009; Green, 1987; Lippa, 2005; Rieger, Linsenmeier, Gygax, & Bailey, 2008). Studies linking mostly-heterosexuality and bisexuality to behavioral gender nonconformity are scarcer and have yielded mixed findings: While some reported that variations in child gender nonconformity were associated with subtle differences in same-sex attractions, at least among men (Dunne, Bailey, Kirk, & Martin, 2000; Vrangalova & Savin-Williams, 2014), others failed to identify a monotonic increase in adolescent gender nonconformity along the Kinsey continuum of sexual orientation from exclusively heterosexual to exclusively lesbian/gay (Baams, Beek, Hille, Zevenbergen, & Bos, 2013) or a significant difference between bisexual individuals and their heterosexual counterparts in terms of child and adult gender nonconforming behavior in retrospective and prospective studies and across Western and Eastern cultures (Cardoso, 2009; Steensma, van der Ende, Verhulst, & Cohen-Kettenis, 2013).

Whether all sexual minorities are gender nonconforming is subject to further examination, yet there is more consensus that sexual minorities who demonstrate gender nonconforming behavior in childhood and adolescence are often stigmatized, victimized, and rejected by parents and peers (Alanko et al., 2009; Baams et al., 2013, Collier et al., 2013; D'Augelli, Grossman, & Starks, 2006; D'Augelli, Pilkington, & Hershberger, 2002; Landolt, Bartholomew, Saffrey, Oram, & Perlman, 2004; Roberts, Rosario, Slopen, Calzo, & Austin, 2013; Toomey et al., 2010). Consequently, researchers suggest that sexual minority individuals (especially lesbians and gay men) experience elevated mental distress, such as depression, at least in part because of their adverse experiences associated with explicit gender nonconforming behavior in childhood and adolescence (Alanko et al., 2009; Collier et al., 2013; D'Augelli et al., 2002, 2006; Roberts et al., 2013; Toomey et al., 2010).

Comparatively less is known about the impact of adult gender nonconforming behavior on depression and other mental health problems among sexual minority young adults. Evidence does suggest, however, that feminine behavior among men is devalued by society (Storms, 1978; Theodore & Basow, 2001; Whitley, 1987), even within the sexual minority community (Bailey, Kim, Hills, & Linsenmeier, 1997; Laner, 1978; Laner & Kamel, 1977; Laner & Laner, 1979, 1980; Taywaditep, 2001). The societal attitudes toward masculine behavior among women is less harsh, a point to which we will return. As a consequence, it is expected that, at least among men, adult gender nonconforming behavior would be related to mental health problems such as depression. Consistent with this hypothesis, a large body of studies found that transgender biological males constantly reported a high level of depression, perhaps partly due to the stigma attached to their cross-gender behavior (for a review, see IOM, 2011). Among gay and bisexual men, adult gender nonconformity is also linked to psychological distress (Sandfort, Melendez, & Diaz, 2007; Skidmore, Linsenmeier, & Bailey, 2006). In a study based on a nationally representative sample, Savin-Williams, Cohen, Joyner, and Rieger (2010) implied that gender nonconformity (although not directly measured) was so pervasive among sexual minority young men that their depression level was comparative to that of heterosexual young women's, which explained the disparity in depression between sexual minority young men and heterosexual young men (although, see Meyer, 2010, for a direct objection to this assertion).

However, not all studies supported the relation between adult gender nonconforming behavior and depression. For example, Toomey et al. (2010) simultaneously evaluated the contributions of adolescent and young adult gender nonconformity on young adult depression in a structural equation model. They found that while adolescent gender nonconformity affected young adult depression via experience of school victimization, young adult gender

nonconformity was neither directly nor indirectly related to young adult depression. This finding is surprising and interesting, because Toomey et al. also reported a strong correlation between adolescent and young adult gender nonconformity. If societal attitudes toward gender nonconforming behavior were similar for adolescents and young adults, one would expect similar effects of gender nonconforming behavior on victimization and depression during adolescence and young adulthood. In another study of Black South African gay and bisexual men, Cook, Sandfort, Nel, and Rich (2013) reported that although adult gender nonconformity was associated with school and general discrimination and the latter was related to depression, adult gender nonconformity was not related to depression. Further, individual outness and involvement in gay community did not explain why adult gender nonconformity and depression was not related, suggesting that some other factors may be at play. Together, these findings illustrate a need for replication in larger and more representative samples on the impact of adult behavioral gender nonconformity on depression.

To add to the complexity of research on adult gender nonconformity and depression, societal attitudes toward gender nonconforming behavior seem to be asymmetrical for men versus for women. For example, female masculinity is less frequently punished by society compared to male femininity (Fagot, 1977, 1995; Kane, 2006; Maccoby, 1998; Skidmore et al., 2006) and can even be beneficial in circumstances, such as interpersonal relations and career making (Wong, Kettlewell, & Sproule, 1985). Consequently, the association between gender nonconformity and depression seems to be stronger among men than among women (Roberts et al., 2013), although it is not known if this is true for both heterosexuals and sexual minorities. Roberts et al. also reported that gender nonconformity had a larger impact on depression among heterosexuals than among sexual minorities; it is possible that heterosexual men who are gender

nonconforming are most vulnerable for depression, if the elevated stress of gender nonconformity on men and on heterosexuals is additive.

Within the sexual minority population, the relation between young adult gender nonconformity and depression may also vary among subgroups. For example, if bisexuals and mostly heterosexuals demonstrate a similar amount of gender nonconforming behavior as heterosexuals (Baams et al., 2013; Cardoso, 2009; Steensma et al., 2013), it is possible that for these sexual minorities gender nonconformity matters more than for lesbians and gay men, just as that for heterosexuals. Alternatively, slight variations in the general low gender nonconforming behavior among bisexuals and mostly heterosexuals may not be observable enough to be subject to victimization and other stress to significantly increase depression.

In summary, more research is needed to examine the relation between sexual orientation and adult gender nonconforming behavior, especially with regard to nuanced subgroup differences. Moreover, while the majority of studies showed that gender nonconformity is associated with high depression, a replication is called for on the impact of adult gender nonconformity on depression, as is an exploration of the interaction effect of adult gender nonconforming behavior, sex, and sexual orientation in predicting depression.

The Current Study

The present study aimed to address three questions. First, how do sexual minority young adults differ from heterosexual counterparts in depression? Second, how does young adult gender nonconformity relate to sex and sexual orientation? Third, how does young adult gender nonconformity influence depression among sexual minorities and heterosexuals? We used the National Longitudinal Study of Adolescent Health (Add Health) to explore the disparity in depression between three sexual minority groups (lesbian/gay, bisexual, and mostly heterosexual)

and the heterosexual group during the transition to adulthood. We measured depression twice, first when the majority of participants were near the beginning of their young adulthood and then again 6 years later. We investigated the diversity within the sexual minority group by conducting pair-wise comparisons between sexual minority subgroups and the heterosexual reference group. In addition, we explored the relations between sex, gender nonconformity, and sexual orientation, and their independent and interaction effects on concurrent and prospective depression during young adulthood. Based on the literature review, we had three hypotheses:

H1. All three sexual minority groups would report significantly higher levels of prospective depression than the heterosexual reference group, and bisexuals should report larger disparities than heterosexuals in concurrent and prospective depression than mostly heterosexuals and lesbians and gay men.

H2. Lesbian and gay young adults would demonstrate more gender nonconforming behavior than heterosexual young adults do, although no firm prediction could be made on the gender nonconformity levels of mostly heterosexual and bisexual young adults.

H3. Young adult gender nonconformity would be linked to high concurrent and prospective depression, although no firm prediction could be made on the interaction between sex, sexual orientation, and young adult gender nonconformity in predicting concurrent and prospective depression.

METHOD

Participants

We used data collected from the third and fourth waves of the Add Health Study, a multi-wave school-based study representative of adolescents in the United States. Starting in 1994–1995, Add Health researchers selected schools from which 20,745 adolescents were

chosen as participants for a 90-minute in-home interview. Subsequent follow-up in-home interviews were directly solicited among eligible participants in Wave 1. The third wave data were collected during 2001–2002, when the 15,197 participants were 18 to 26 years old. Wave 4 included 15,701 original Wave 1 Add Health participants in 2008, when most were 24 to 32 years old (52 participants were 33–34 years old at the time of the Wave 4 interview). Audio-computer assisted self interview and computer assisted self interview technologies were conducted on laptop computers for sensitive questions in order to enhance data quality. The response rates of eligible participants for Waves 3 and 4 were 76% and 80%, respectively. A complete description of the study design and sample constitutions, as well as reasons for non-response (e.g., eligible respondents unable or unwilling to participate), can be found elsewhere (Brownstein et al., n.d.; Chantala, Kalsbeek, & Andraca, 2005; Harris, 2012).

In order to obtain nationally representative estimates (Chantala & Tabor, 2010), we excluded participants without a valid sampling weight (for the weighing procedure, cf. Tourangeau & Shin, 1999). In addition, for the purpose of the current study, we excluded participants who reported themselves neither attracted to males nor females (n = 37). The final sample consisted of 9,421 participants whose data were available at both Waves 3 and 4, who had a valid sampling weight, and were not asexual (see Table 1 for demographic information of participants included in the current study).

Measures

Depression

In Waves 3 and 4 of Add Health, a 10-item short version of the Center for Epidemiological Studies Depression Scale (Radloff, 1977) was administrated. Sample items include “You felt that you were just as good as other people, during the past seven days” (reverse

coded) and "You were sad, during the past seven days." Participants rated the frequencies that they had those feelings during the past week on a 4-point Likert scale from 0 (never or rarely) to 3 (most of the time or all of the time). Item scores were summed to form a composite score (αs = .81 and .84 in Waves 3 and 4, respectively).

Sexual Orientation

In Wave 3, participants reported their sexual orientation on a Kinsey-type scale (Kinsey, Pomeroy, & Martin, 1948). The question read, "Please choose the description that best fits how you think about yourself." The 5 response options included: 1 = 100% heterosexual (straight), 2 = mostly heterosexual (straight), but somewhat attracted to people of your own sex, 3 = bisexual—that is, attracted to men and women equally, 4 = mostly homosexual (gay), but somewhat attracted to people of the opposite sex, 5 = 100% homosexual (gay). We combined the "mostly homosexual (gay)" and "100% homosexual (gay)" to form a single lesbian/gay group in order to increase statistical power because only 19 women (0.4%) identified as "100% homosexual (gay)" (Table 1).

Young Adult Gender Nonconformity

We developed a measure of gender nonconformity in daily activities for young adults in Wave 3 of the Add Health study following an approach similar in nature to the work of Lippa and Connelly (1990). In essence, this approach provided a diagnostic ratio of the degree to which a person belonged to a social group (e.g., Caucasians) given a characteristic of that group (e.g., all Caucasians have a white-colored skin) and the status of the person in that characteristic (e.g., the person's skin is dark-colored). When applied to gender groups, the main objective is to calculate the likelihood of an individual being a male or a female given the individual's sex-typed preferences or behavior (e.g., daily activities) in comparison to the norm of the population

in which the individual was drawn. For example, suppose in a given population, 80% of females and 20% of males do housework 5 times a week, and the sex ratio is 1:1. Because *p* (male | does housework 5 times a week) = *p* (male) × *p* (does housework 5 times a week | female) / *p* (does housework 5 times a week), the probability that an individual is male assuming the person does housework 5 times a week is .50 × .20 / .50 = .20. Accordingly, the probability that the individual is female is .80.

In Wave 3 Add Health, we selected 22 items on daily activities from Wave 3 (Table 2). The majority of the items demonstrated medium to large gender differences (e.g., "How many times did you do housework, such as cleaning, cooking, or laundry? [female typical]" "How many times did you participate in strenuous team sports such as football, soccer, basketball, lacrosse, rugby, field hockey, or ice hockey? [male typical]"). We also included items that were less gender-related to increase within-sex variations of gender diagnostic ratios (e.g., "How many times did you just 'hang out' with friends, or talk on the telephone for more than five minutes?"). We divided the items into four groups according to the effect size (Cohen's *d*) of the gender difference of each item, so that each group had a range of items that revealed small, median, and/or large gender differences.

We applied discriminant analysis (Tabachnick & Fidell, 1996) using PROC DISCRIM in SAS 9.2—a statistical procedure that allowed us to predict class membership (in the current case, gender) on the basis of a set of predictor variables (in the current case, daily activity items)—separately to the four groups of items (Table 2, 2nd column). In order to meet statistical assumptions of the procedure, we truncated the range of items when applicable (Table 2, 3rd column); in addition, the SAS PROC DISCRIM algorithm automatically used the within covariance matrices in the discriminant function to adjust for the heterogeneity of variance-

covariance matrices (Morrison, 1976). Consequently, we had four diagnostic ratios that estimated the probability an individual was male or female. Then, we took the average of the four ratios to form a composite diagnostic score for each participant. To measure gender nonconformity, we chose the probability of being a male if the participant was female, and the probability of being a female if the participant is male. The diagnostic approach revealed acceptable reliability in the Add Health sample ($\alpha = .60$).

We noted that the sex differences of individual activities were mostly not large in effect size (Table 2, last column); however, after performing discriminant function analysis which placed larger weights to items with larger sex differences, smaller weights to items with smaller sex differences, and combined the information from all the discriminant functions, the sex difference in daily activities in the Add Health sample was large, $d = 1.12$. This value was slightly lower than that reported in Lippa (2010) ($d = 1.18$), which might be attributed to the difference between having an interest (Lippa's measure) and taking an action (our measure). However, we deemed that gender nonconforming behavior was more observable than personal interests and were, consequently, more susceptible to discrimination and victimization; therefore, we concluded that our approach was suitable with the Add Health data set and the aim of the study.

Demographic Characteristics

To further capture the diversity of the sexual minority and heterosexual experiences, we measured the following demographic characteristics. We calculated participants' *age* based on the birth date given and the interview date documented in Wave 3 Add Health. Participant *sex* was based on self-report in Wave 1 and was adjusted with Wave 2 corrections. We used the effect code (-1 = male, 1 = female) when analyzing the main effects and the dummy codes (0 =

male, 1 = female, or 0 = female, 1 = male) to probe interactions between sex and other independent variables when applicable. Participants reported their *race/ethnicity* in Wave 1. We used Caucasians as the reference group and created four dummy variables (0 = no, 1 = yes) for Black, Latino, Asian, and American Indian, respectively. As a proxy of social class, two questions in Wave 1 in-home interview asked adolescents to report their *parental education*: "How far in school did [your resident father] go?" "How far in school did [your resident mother] go?" (1 = less than high school, 2 = high school, 3 = some college/post-secondary education, 4 = college degree or higher). Finally, we selected 4 yes/no items to measure participants' *financial problems* in Wave 3 Add Health as a proxy for economic hardship: "Are you currently getting AFDC, public assistance, or welfare?", "Are you getting food stamps now?", "Have you ever received any public assistance or welfare payments other than food stamps?", "Before you turned 18, did anyone in your household ever receive public assistance or welfare payments?" We calculated the mean of these items (range, 0–1); larger scores represented more financial problems.

Plan of Analyses

Descriptive Statistics

Before any inferential analysis, we first conducted descriptive analyses on Wave 3 depression, Wave 4 depression, and Wave 3 young adult gender nonconformity by sex and sexual orientation (Table 3).

Analysis of Variance

In order to examine the effects of sex and sexual orientation on Wave 3 depression, Wave 4 depression, and Wave 3 young adult gender nonconformity, we conducted a series of two-way analyses of variance (ANOVAs) in PASW/SPSS 20. Specifically, we used a dichotomous

variable of sex (male vs. female) and a categorical variable of sexual orientation (heterosexual, mostly heterosexual, bisexual, and lesbian/gay) to predict the listed continuous outcomes. Also included in the models was a sex × sexual orientation interaction term.

Multiple Regression Models

We constructed two multiple regression models to investigate how Wave 3 sexual orientation and Wave 3 gender nonconformity predicted concurrent (Wave 3) depression and prospective (Wave 4) depression, respectively, while taking into account the diversity of the sample by controlling for demographic characteristics. We built the models using SAS 9.2 PROC SURVEYREG, accounting for sample weights, school clusters, and region strata whenever applicable in order to calculate nationally representative estimates (Chen & Chantala, 2014). To predict Wave 3 depression, we included a dichotomous variable of sex (male vs. female), three dummy variables of sexual orientation (mostly heterosexual, bisexual, and lesbian/gay) in which heterosexual participants were the reference group and a continuous variable of gender nonconformity. Also included in the regression models were control variables: four dummy variables of race/ethnicity (Black, Latino, Asian, and American Indian) with Caucasians as the reference group and three continuous variables of age, parental education, and financial problems. Demographic characteristics, such as gender, age, ethnicity, and socioeconomic status, were found in other population-based studies to intersect with sexual orientation in explaining depression disparity (e.g., Newcomb, Birkett, Corllis, & Mustanski, 2014; Russell, Everett, Rosario, & Birkett, 2014; Talley, Hughes, Aranda, Birkett, & Marshal, 2014); we therefore entered them into the regression models to further capture the diversity of the sexual minority population. We then used the same set of predictors to predict Wave 4 depression.

RESULTS

Sex, Sexual Orientation, and Young Adult Gender Nonconformity

Consistent with previous studies (e.g., Toomey et al., 2010), young adult men were more likely to report gender nonconforming behavior than women, $F(1, 9288) = 241.85$, $p < .001$, partial $\eta^2 = .025$ (see Table 3 for *M*s and *SD*s by sex and sexual orientation, and Fig. 1 for the distributions of gender nonconformity by sex). Moreover, the effect of sexual identity label on young adult gender nonconformity was significant, $F(3, 9288) = 19.96$, $p < .001$, partial $\eta^2 = .006$. Post hoc analyses (Tukey's Honestly Significant Difference [HSD] tests) revealed that lesbians and gay men were more gender nonconforming than heterosexual, mostly heterosexual, and bisexual groups, *p*s < .001. Mostly heterosexuals were not significantly different from heterosexuals or bisexuals in gender nonconformity, $p = .158$ and .959, respectively. Bisexuals did not significantly differ from heterosexuals in gender nonconformity, $p = .957$. The sex × sexual orientation interaction term did not significantly predict gender nonconformity, $F(3, 9288) = 2.51$, $p = .055$, partial $\eta^2 = .001$, indicating that the differences in gender nonconformity among sexual minority groups did not vary by sex.

Sexual Orientation, Young Adult Gender Nonconformity, and Concurrent Depression

The two-way ANOVA (sex × sexual orientation) demonstrated that young adult women reported higher concurrent depression than young adult men, $F(1, 9266) = 26.95$, $p < .001$, partial $\eta^2 = .003$ (see Table 3 for *M*s and *SD*s). There was also a significant effect of sexual orientation, $F(3, 9266) = 41.01$, $p < .001$, partial $\eta^2 = .013$; post hoc analyses (Tukey's HSD) revealed that mostly heterosexual, bisexual, and lesbian/gay young adults were more depressed than heterosexuals at Wave 3, $p < .001$, $p < .001$, and $p = .001$, respectively. Mostly heterosexuals were not significantly different in concurrent depression than bisexuals or

lesbian/gay young adults, *p*s = .507 and .293, respectively. Bisexuals tended to report more concurrent depressive symptoms than lesbians/gay young adults, $p = .063$. No significant sex × sexual orientation interaction was observed, $F(3, 9266) < 1$, $p = .40$, partial $\eta^2 = .000$.[1]

In the multiple regression model, several of the demographic variables were related to higher depression in Wave 3: female, Black, Latino, Asian, low parental education level, and severe financial problems. The effect of gender nonconformity was also significant: Participants who engaged in more gender nonconforming activities reported more depressive symptoms than those who were less gender nonconforming. With regard to sexual orientation, bisexual and mostly heterosexual young adults were at higher risk for depression compared to heterosexual counterparts while, after accounting for demographic characteristics, gender nonconformity, and sampling design (sampling weight, school clusters, and region strata; see Chen & Chantala, 2014), lesbian/gay young adults did not differ significantly from heterosexuals in depression levels (Table 4).

Sexual Orientation, Young Adult Gender Nonconformity, and Prospective Depression

Two-way ANOVA (sex × sexual orientation) demonstrated that young adult women reported higher prospective depression than young adult men, $F(1, 9298) = 15.34$, $p < .001$, partial $\eta^2 = .002$ (see Table 3 for *M*s and *SD*s). There was also a significant effect of sexual orientation, $F(3, 9298) = 15.80$, $p < .001$, partial $\eta^2 = .005$; post hoc analyses (Tukey's HSD) revealed that mostly heterosexuals reported more prospective depression at Wave 4 than heterosexuals and lesbian/gay young adults, $p < .001$ and $p = .037$, respectively. Bisexual young adults were also more depressed than heterosexuals and lesbian/gay young adults at Wave 4, $p < .001$ and $p = .002$, respectively. Bisexuals did not differ significantly in prospective depression from mostly heterosexuals, $p = .208$. Lesbian/gay young adults did not significantly differ in

prospective depression from heterosexuals, $p = .861$. No significant sex × sexual orientation interaction was observed, $F(3,9298) = 1.54$, $p = .201$, partial $\eta^2 = .000$.

In the multiple regression model, the effects of the demographic variables on depression in Wave 4 were similar to those on depression in Wave 3: female, Black, Asian, low parental education level, and severe financial problems were associated with higher prospective depression. With regard to sexual orientation, after accounting for demographic characteristics, gender nonconformity, and sampling design, mostly heterosexual, but not bisexual or lesbian/gay young adults, were at a significantly higher risk for depression compared to their heterosexual counterparts. In contrast to the finding for concurrent depression, young adult gender nonconformity on daily activities was not significantly related to depression (Table 4). Notably, however, there was a significant interaction between gender nonconformity and a lesbian/gay identity; further probing indicated that while gender nonconformity among heterosexual young adults was not associated with prospective depression, $B = 0.78$, $SE = 0.52$, $p = .139$, there was a steady decrease (although marginally significant) in depression as gender nonconforming increased among lesbians/gay young adults, $B = -6.21$, $SE = 3.61$, $p = .089$ (Fig. 2).

DISCUSSION

Sexual minority individuals are at a greater risk for depression than their heterosexual counterparts (Cochran & Mays, 2000a, 2000b; Gilman et al., 2001; Herek & Garnets, 2007; IOM, 2011; King et al., 2008; Marshal et al., 2011, 2013; Meyer, 2003; Russell & Joyner, 2001; Saewyc, 2011). The current study found more depressive symptoms among mostly heterosexual and bisexual young adults than among heterosexual counterparts. However, contrary to our hypothesis, after controlling for demographic characteristics and gender nonconformity while adjusting for representative sampling design, lesbians and gay men did not differ in depression

from heterosexuals, suggesting heterogeneity within the sexual minority population.[2] In addition, young adult gender nonconformity was associated with accentuated concurrent depression near the beginning of young adulthood, but did not predict prospective depression 6 years later. More interestingly, the effect of gender nonconformity on prospective depression was dependent on sexual orientation: Among heterosexuals, higher gender nonconformity was associated with increased depression, while among lesbian and gay young adults, elevated gender nonconformity was related to less depression.

Elevated Depression Among Bisexual and Mostly Heterosexual Young Adults

Although there was no significant difference in depression between heterosexual and lesbian/gay young adults at two time points based on the nationally representative estimates, in the current study, bisexual and mostly heterosexual individuals reported higher depression compared to the heterosexual reference group. A closer look revealed diversity even between the mostly heterosexual and bisexual young adults. Specifically, although both bisexuals and mostly heterosexuals were at high risk for concurrent depression, only the mostly heterosexual identity predicted prospective depression 6 years later based on the nationally representative estimates.

Limited studies have investigated factors contributing to the depression of bisexual and mostly heterosexual young adults. In the current study, young adult gender nonconformity did not seem to explain the elevated risk in depression among bisexuals and mostly heterosexuals, probably because bisexual and mostly heterosexual individuals on average were no more gender nonconforming than heterosexuals. Consequently, compared with lesbians and gay men who did demonstrate more gender nonconforming behavior than heterosexuals, bisexual and mostly heterosexual adults are less likely to be the target of violence, harassment, and discrimination during adulthood (Herek, 2009; Lewis et al., 2009). Yet, despite the attenuated stigma and

minority stress, bisexual and mostly heterosexual individuals still reported higher depression compared to heterosexuals, suggesting the possibility of bisexual and mostly heterosexual specific paths to deteriorated mental health.

One such path might be the concealment and disclosure of sexual orientation, which is a critical milestone of sexual identity development. Concealment of an otherwise stigmatized identity can pose serious psychological challenges that have negative implications on the individual's cognitive, affective, and behavioral functioning (Pachankis, 2007). Bisexuals and mostly heterosexuals are not only more capable of concealing their sexual orientation than gender nonconforming lesbians and gay men, they are also more likely to do so (Balsam & Mohr, 2007; Lewis et al., 2009). Because the concealment of sexual identity is associated with elevated depressive symptoms mediated by high internalized homophobia and low general emotional support (Schrimshaw, Siegel, Downing, & Parsons, 2013), the "coming-out" process may have unique theoretical and clinical implications for bisexual and mostly heterosexual mental health (Rosario, Hunter, Maguen, Gwadz, & Smith, 2001).

The Influence of Young Adult Gender Nonconformity

Previous studies suggested that child and adolescent gender nonconformity has a negative impact on mental health among heterosexuals and sexual minorities that may extend beyond childhood and adolescence and into adulthood (Alanko et al., 2009; Collier et al., 2013; D'Augelli et al., 2002, 2006; Roberts et al., 2013; Toomey et al., 2010). If a similar mechanism was at work, we would expect that young adult gender nonconformity is bad for mental health and that this harm is long lasting. Indeed, the current study demonstrated that near the beginning of young adulthood, gender nonconforming daily activities were associated with more depressive symptoms, regardless of sexual orientation. However, consistent with some recent studies (Cook

et al., 2013; Toomey et al., 2010), such a negative impact seemed to decay over time: previous gender nonconformity was not significantly related to depression 6 years later. Moreover, previous gender nonconformity was associated with (although not significantly) decreased prospective depression among lesbian/gay young adults. These findings highlighted the importance of considering development when examining the effect of gender nonconforming behavior on depression.

Because lay people tend to use gendered cues (e.g., gender-typed daily activity preference, masculine or feminine facial appearance, body motion, and other behavior, etc.) to infer others' sexual orientation (Freeman, Johnson, Ambady, & Rule, 2010; Johnson, Gill, Reichman, & Tassinary, 2007), parents are often aware of their children's sexual orientation early due to their gender atypical behavior (D'Augelli, Grossman, & Starks, 2005). Whereas gender nonconforming children report more past verbal harassment based on their sexual orientation from family members, they are less fearful of parental rejection and victimization and receive more family support later (D'Augelli et al., 2005, 2008). Therefore, early indication of gender atypical behavior may help parents to "prepare" for their children's disclosure of a same-sex sexual orientation and react positively upon coming out, which plays a critical role in preventing mental health problems among sexual minority individuals (Rosario et al., 2009).

In terms of individual growth, that gender nonconforming sexual minorities are less capable of concealing their sexual orientation (Sylva, Rieger, Linsenmeier, & Bailey, 2010) may give them an edge in developing mature coping systems against victimization and bullying associated with their gender atypical behavior and same-sex sexual orientation. In other words, using the transferrable coping skills developed for minority stress related to gender atypical behavior, sexual minority individuals who are highly gender nonconforming at a young age may

be better at dealing with minority stress directed towards sexual orientation than those who are not gender nonconforming later. Although the current study did not measure child gender atypical behavior directly due to constraints of the Add Health dataset, the moderation effect of gender nonconformity on sexual orientation and depressive symptoms would most likely hold given the strong continuation between child gender atypical behavior and adolescent and young adult gender nonconformity (D'Augelli et al., 2008; Golombok et al., 2008; Golombok, Rust, Zervoulis, Golding, & Hines, 2012; Toomey et al., 2010). However, this speculation awaits more empirical support.

It is notable that the moderation effect of young adult gender nonconformity on prospective depression was only observed between heterosexuals and lesbians and gay men; there were no significant interactions among the comparisons between heterosexuals and bisexuals and between heterosexuals and mostly heterosexuals. This is probably because in the current sample lesbians and gay men were more gender nonconforming than bisexuals and mostly heterosexuals (and were thus more vulnerable to prejudice and discriminations based on gender expressions). Future studies should continue to explore the diversity in the interaction effect between gender nonconformity and sexual orientation on mental health within the sexual minority group.

Limitations

There were several methodological limitations that deserve consideration. The significant amount of error in the constructed young adult gender nonconformity measure might have biased the estimates of regression coefficients and standard errors. Specifically, the presence of measurement error will underestimate the contribution of the product terms associated with gender nonconformity (Busemeyer & Jones, 1983). Therefore, the interactions between gender

nonconformity and sex and bisexual identity or mostly heterosexual identity may be significant, but were not detected due to attenuated statistical power. In the meantime, the significant contribution of gender nonconformity × lesbian/gay identity may be larger in reality. The effect of gender nonconformity may also be biased, although the direction of bias is more obscure: Measurement error can underestimate the regression coefficient of gender nonconformity, but may also overestimate it when control variables such as financial problems also contain measurement error (Liu, 1988).

In addition, the novel finding that mostly heterosexuals and bisexuals were not more gender nonconforming than heterosexuals may be constrained to the behavioral component of gender nonconformity measured in the current study. It is also possible that gender nonconforming in other domains (e.g., vocalization, body movements, or personality traits) would affect the relationship between sexual orientation and psychological well-being in a different way. Alternatively, an emotional component of gender nonconformity might also be associated with depression.

Finally, gender nonconformity was measured only in young adulthood, making it difficult to compare with previous studies that were mostly based on childhood gender nonconformity. Ideally, researchers can design a longitudinal panel study that measures gender nonconformity, sexual orientation, and mental health over childhood, adolescence, and adulthood, and investigate different paths from gender nonconformity and sexual orientation to mental health.

Implications

Despite the limitations, the current study was informative in that it highlighted the importance of considering development when discussing mental health disparities between sexual minorities and heterosexual counterparts. Moreover, it demonstrated the variations within

the sexual minority group and an emergent need of more research on mostly heterosexual and bisexual mental health. Finally, future research should continue to examine the role of gender nonconformity at different developmental stages in the relation between sexual orientation and mental health and to identify possible causal mechanisms that explain the current findings.

ACKNOWLEGEMENTS

The authors acknowledge support for this research: the University of Arizona Norton School of Family and Consumer Sciences Fitch Nesbitt Endowment and a University of Arizona Graduate Access Fellowship to the second author. This research uses data from Add Health, a program project directed by Kathleen Mullan Harris and designed by J. Richard Udry, Peter S. Bearman, and Kathleen Mullan Harris at the University of North Carolina at Chapel Hill, and funded by grant P01-HD31921 from the Eunice Kennedy Shriver National Institute of Child Health and Human Development, with cooperative funding from 23 other federal agencies and foundations. Special acknowledgment is due Ronald R. Rindfuss and Barbara Entwisle for assistance in the original design. Information on how to obtain the Add Health data files is available on the Add Health website (http://www.cpc.unc.edu/addhealth). No direct support was received from grant P01-HD31921 for this analysis. The authors thank Noel Card and Susan Stryker for comments on the previous versions of this manuscript and Richard Lippa and Katerina Sinclair for methodological and statistical consult. The authors also thank the anonymous reviewers for their helpful comments.

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Footnotes

[1] We note that Tukey's HSD did not control for sex differences. After accounting for sex, lesbians and gay men were no longer different in gender nonconformity than mostly heterosexuals or bisexuals, while mostly heterosexuals became significantly more gender nonconforming than heterosexuals. The difference in the findings was due to that (1) males were more gender nonconforming than females in this sample, and (2) the male-to-female ratio was smaller in mostly heterosexuals and bisexuals and larger in lesbians and gay men than in heterosexuals. We note that the sex ratio by sexual orientation groups in Add Health is consistent with other U.S. national samples (e.g., Austin et al., 2004; Mosher, Chandra, & Jones, 2005). Detailed statistical information is available from the authors upon request.

[2] We note that our finding was at odds with Marshal et al.'s (2013), which analyzed developmental change in depression by sexual orientation in Add Health using latent growth curve modeling, and reported "… all sexual minority groups had significantly higher mean depressive symptom levels at Wave I than the heterosexual group.…On average, depressive symptoms did not significantly change across time (i.e., the slope means were not significantly different from zero) for any of the sexual orientation groups; however, the disparities across groups were maintained due to the differences at Wave I" (p. 1248). To interpret their different finding, we notice several methodological differences between the two studies. First, we acknowledge differences in modeling approach (Marshal et al., 2013 used maximum likelihood estimation with robust standard errors whereas we used ordinary least squares regression). Second, Marshal et al. (2013) used the Wave 4 sexual identity measure whereas we used the measure from Wave 3. We recognize that among participants who identified as heterosexual and lesbian/gay at Wave 3, approximately 7% and 15% of them, respectively, had chosen a different

sexual identity label at Wave 4, and some others changed into the heterosexual and lesbian/gay categories from Wave 3 to Wave 4 (Savin-Williams, Joyner, & Rieger, 2012). This illustrates a problem inherent to any study that wishes to categorize people using sexual minority labels at a single time point. Third, our study was limited to participants who have a valid sampling weight for the longitudinal analysis involving Waves 1 to 4 (N = 9,421; Chen & Chantala, 2014) whereas the Marshal et al. (2013) study excluded adolescents in outlying age groups at Wave 1 (n = 1,996) and reported a total N of 12,379 (which indicates that they did not make adjustments using standard sampling weights).

Table 1

*Sample Characteristics (*N = *9,421)*

	M (*SD*) or count (percentage)	
	Male (*n* = 4,276)	Female (*n* = 5,145)
Age (Wave 3)	21.75 (1.65)	21.52 (1.61)
Race/ethnicity		
White	2,428 (56.8%)	2,872 (55.8%)
Black	783 (18.3%)	1,141 (22.2%)
Latino	684 (16.0%)	764 (14.8%)
Asian	304 (7.1%)	283 (5.5%)
American Indian	32 (0.7%)	41 (0.8%)
Sexual identity		
Heterosexual	3,983 (93.1%)	4,400 (86.7%)
Mostly heterosexual	143 (3.3%)	495 (9.7%)
Bisexual	29 (0.7%)	130 (2.5%)
Mostly lesbian/gay	30 (0.7%)	33 (0.6%)
Lesbian/gay	57 (1.3%)	19 (0.4%)
Parental education[a]	2.90 (1.06)	2.80 (1.07)
Financial problems[b]	0.05 (0.13)	0.11 (0.21)

Note. Percentages may not add up to 100% due to missing values.

[a] Higher values represent higher parental education levels; ranges 1 to 4. Used as a continuous variable in the regression analysis.

[b] Higher values represent more financial problems; ranges 0 to 1. Used as a continuous variable in the regression analysis.

Table 2

Measurement Items of Young Adult Gender Nonconformity

Variable name (Add Health ID)	Item (Discriminant analysis group)	Range	Adjusted range	Male (n = 4,276)		Female (n = 5,145)		Cohen's d
				M	*SD*	*M*	*SD*	
HOUSEWORK (H3DA1)	In the past seven days, how many times did you do housework, such as cleaning, cooking, or laundry? (1)	0 to 7	0 to 7	3.82	2.26	5.00	2.15	-0.53
HOBBY (H3DA2)	In the past seven days, how many times did you engage in a hobby such as working on a collection, playing cards or board games, arts and crafts, drama, playing a musical instrument or singing with a group, or shopping just for fun? (2)	0 to 7	0 to 7	3.00	2.41	2.44	2.13	0.25
VIDCOMP (H3DA3)	In the past seven days, how many times did you watch a movie, play video or computer games, or use a computer for surfing the Web, exchanging email, or participating in a chat room? (4)	0 to 7	0 to 7	4.42	2.46	3.83	2.40	0.24
HRVIDEO (H3DA4)	On the average, how many hours a week do you spend watching videos? (1)	0 to 168	0 to 11	4.63	3.59	3.65	3.33	0.28
HRCOMPUTER (H3DA5)	On the average, how many hours a week do you spend playing video or computer games, or	0 to 168	0 to 12	4.41	4.28	2.50	3.43	0.49

Variable name (Add Health ID)	Item (Discriminant analysis group)	Range	Adjusted range	Male (n = 4,276)		Female (n = 5,145)		Cohen's d
				M	*SD*	*M*	*SD*	
	using a computer for something other than school work? (3)							
TV (H3DA6)	In the past seven days, how many times did you watch television? (1)	0 to 7	0 to 7	5.48	2.15	5.34	2.17	0.06
HRTV (H3DA7)	On the average, how many hours a week do you spend watching television? (3)	0 to 168	0 to 18	9.98	5.80	9.18	5.82	0.14
EXERCISE (H3DA8)	In the past seven days, how many times did you bicycle, skateboard, dance, hike, hunt, or do yard work? (4)	0 to 7	0 to 7	1.59	1.99	1.10	1.66	0.27
OUTDOORS (H3DA9)	In the past seven days, how many times did you roller blade, roller skate, downhill ski, snow board, play racquet sports, or do aerobics? (1)	0 to 7	0 to 7	0.60	1.40	0.62	1.38	-0.01
TEAMSPORTS (H3DA10)	In the past seven days, how many times did you participate in strenuous team sports such as football, soccer, basketball, lacrosse, rugby, field hockey, or ice hockey? (2)	0 to 7	0 to 7	0.94	1.66	0.20	0.85	0.56
INDIVSPORTS (H3DA11)	In the past seven days, how many times did you participate in individual sports such as running, wrestling, swimming, cross-country skiing, cycle	0 to 7	0 to 7	0.87	1.67	0.56	1.34	0.20

Variable name (Add Health ID)	Item (Discriminant analysis group)	Range	Adjusted range	Male (n = 4,276)		Female (n = 5,145)		Cohen's d
				M	*SD*	*M*	*SD*	
	racing, or martial arts? (4)							
GYM (H3DA12)	In the past seven days, how many times did you participate in gymnastics, weight lifting, or strength training? (1)	0 to 7	0 to 7	1.41	1.97	0.49	1.21	0.56
LIGHTEXER (H3DA13)	In the past seven days, how many times did you play golf, go fishing or bowling, or play softball or baseball? (4)	0 to 7	0 to 7	0.05	1.17	0.18	0.65	-0.14
WALK (H3DA14)	In the past seven days, how many times did you walk for exercise? (3)	0 to 7	0 to 7	1.29	2.14	1.80	2.17	-0.24
HANGOUT (H3DA15)	In the past seven days, how many times did you just "hang out" with friends, or talk on the telephone for more than five minutes? (1)	0 to 7	0 to 7	4.36	2.39	4.45	2.34	-0.04
WORKOUT (H3GH5)	In the past seven days, how many times did you go to an exercise or fitness center to exercise or work out? (3)	0 to 21	0 to 21	1.36	2.07	0.93	1.77	0.22
FELLASLEEP (H3GH15)	In the past seven days, how often did you fall asleep when you should have been awake (for example, during class or at work)? (2)	0 to 3	0 to 3	0.22	0.47	0.22	0.48	0.00
TAKENAP	In the past seven days, how often	0 to 3	0 to 3	0.66	0.71	0.72	0.78	-0.08

Variable name (Add Health ID)	Item (Discriminant analysis group)	Range	Adjusted range	Male (n = 4,276)		Female (n = 5,145)		Cohen's d
				M	*SD*	*M*	*SD*	
(H3GH16)	did you take a nap? (4)							
FASTFOOD (H3GH18)	On how many of the past seven days did you eat food from a fastfood place McDonalds, Kentucky Fried Chicken, Pizza Hut, Taco Bell, or a local fastfood restaurant? (2)	0 to 7	0 to 7	2.73	2.17	2.26	1.98	0.23
BREAKFAST (H3GH19)	On how many of the past seven days did you eat breakfast – that is, a meal within an hour of getting up? (3)	0 to 7	0 to 7	3.00	2.68	3.14	2.79	-0.05
HRREL (H3RE31)	In an average week, about how many hours do you spend in religious activities in your home (such as praying, meditating, or reading religious books)? (4)	0 to 90	0 to 7	1.41	1.98	1.86	2.13	-0.22
PRAY (H3RE32)	How often do you pray privately, that is, when you're alone, in places other than a {church/synagogue/temple/mosque/religious assembly}? (2)	0 to 7	0 to 7	3.22	2.62	4.16	2.50	-0.37

Table 3

Means and SD*s of Concurrent Depression (Wave 3), Prospective Depression (Wave 4), and Gender Nonconformity (Wave 3) by Sex and Sexual Orientation*

	Males		Females	
	M (*SD*)	*n*	*M* (*SD*)	*n*
Concurrent depression[a]	4.79 (3.83)	4218	6.29 (4.63)	5056
Heterosexual	4.68 (3.77)	3961	6.04 (4.46)	4381
Mostly heterosexual	6.73 (4.45)	141	7.74 (5.38)	494
Bisexual	6.79 (4.84)	29	8.32 (5.35)	129
Lesbian/gay	5.90 (3.97)	87	8.35 (4.83)	52
Prospective depression[b]	5.58 (4.22)	4234	6.42 (4.92)	5072
Heterosexual	5.52 (4.20)	3975	6.23 (4.81)	4396
Mostly heterosexual	6.99 (4.65)	143	7.46 (5.36)	494
Bisexual	6.28 (5.06)	29	8.57 (5.74)	130
Lesbian/gay	5.56 (3.93)	87	7.27 (5.36)	52
Gender nonconformity[c]	0.51 (0.17)	4233	0.33 (0.12)	5063
Heterosexual	0.50 (0.17)	3974	0.33 (0.12)	4388
Mostly heterosexual	0.55 (0.15)	143	0.35 (0.12)	495
Bisexual	0.50 (0.13)	29	0.38 (0.15)	128
Lesbian/gay	0.56 (0.14)	87	0.41 (0.16)	52

Note. Refer to relevant text for results of ANOVAs and post-hoc pairwise comparisons.

[a] Higher values represent higher Wave 3 depression; range, 0 to 28.

[b] Higher values represent higher Wave 4 depression; range, 0 to 30.

[c] Higher values represent more gender nonconforming behavior; range, 0 to 1.

Table 4

Sexual Orientation (Wave 3) and Young Adult Gender Nonconformity (Wave 3) Regressed on Concurrent (Wave 3) and Prospective Depression (Wave 4)

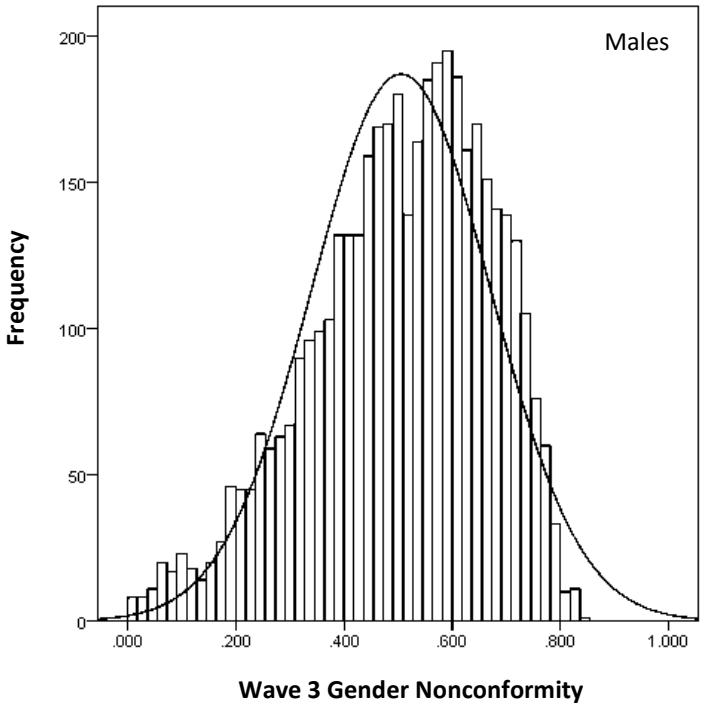
	Concurrent depression (n = 8,796)		Prospective depression (n = 8,826)	
	B	*SE*	*B*	*SE*
Intercept	5.08**	0.08	5.54**	0.09
Sex	0.67**	0.07	0.28**	0.08
Age	-0.07	0.04	0.01	0.04
Black	0.48*	0.20	0.95**	0.22
Latino	0.59**	0.19	0.33	0.21
Asian	1.10**	0.33	1.12**	0.36
American Indian	-0.05	0.79	-0.26	0.50
Parental education	-0.16**	0.06	-0.49**	0.06
Financial problems	3.75**	0.39	2.82**	0.45
Lesbian/gay	0.43	0.43	0.82	0.64
Bisexual	1.80*	0.70	0.94	0.52
Mostly heterosexual	1.68**	0.38	1.42**	0.52
GNC	1.32**	0.44	0.74	0.53
GNC × Lesbian/gay	-0.28	2.55	-6.92*	3.40
GNC × Bisexual	-5.38	4.81	1.32	4.22
GNC × Mostly heterosexual	-0.14	2.36	0.54	2.23
GNC × Sex	-0.01	0.35	-0.54	0.53
Lesbian/gay × Sex	0.53	0.53	0.05	0.63
Bisexual × Sex	-0.23	0.69	1.04	0.58
Mostly heterosexual × Sex	0.52	0.36	0.35	0.43
GNC × Lesbian/gay × Sex	-4.96	2.62	0.40	3.34
GNC × Bisexual × Sex	-6.36	4.90	-5.16	4.12
GNC × Mostly heterosexual × Sex	-1.69	2.30	0.44	2.40
R^2	.087		.058	

Note. Sex: -1 = male, 1 = female; Black, Latino, Asian, American Indian: 0 = no, 1 = yes (reference group: White); lesbian/gay, bisexual, mostly heterosexual: 0 = no, 1 = yes (reference group: heterosexual); GNC = gender nonconformity.

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

Figure 1. Distributions of gender nonconformity of (a) males and (b) females. In general, males were more gender nonconforming than females.

a


Males
Frequency
200
150
100
50
0
.000
.200
.400
.600
.800
1.000
Wave 3 Gender Nonconformity

b

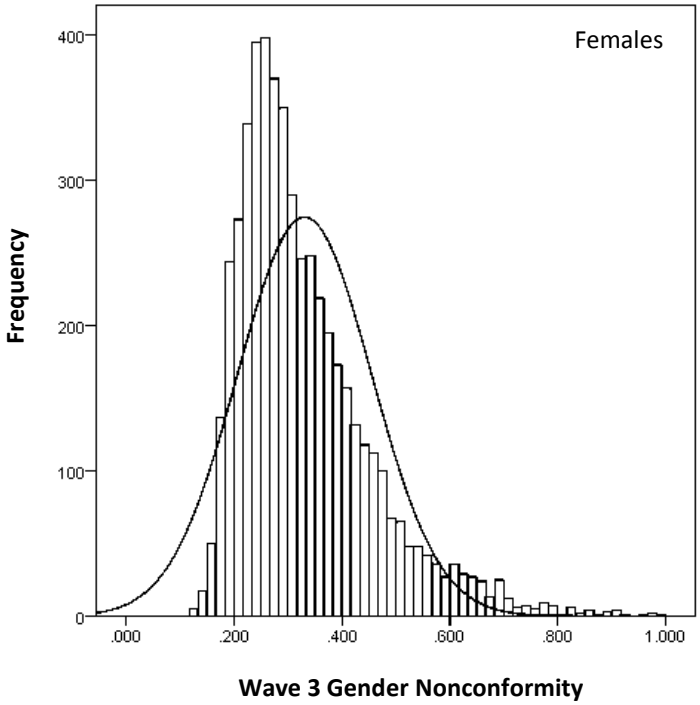
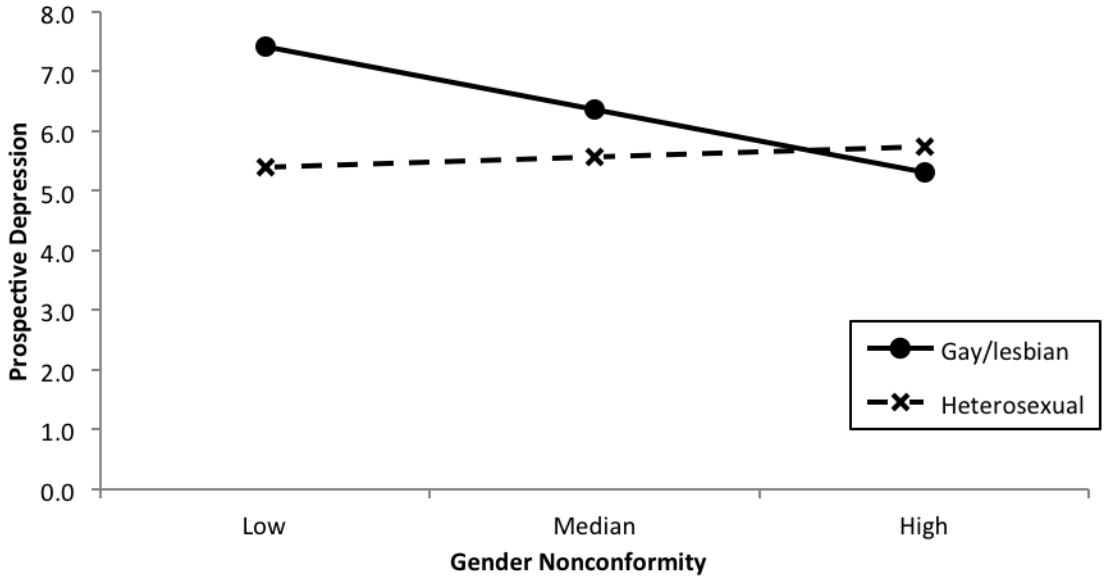

Females
Frequency
400
300
200
100
0
.000
.200
.400
.600
.800
1.000
Wave 3 Gender Nonconformity

Figure 2. Interaction effects of sexual orientation (lesbian/gay vs. heterosexual) and gender nonconformity (low, median, or high) predicting prospective depression during young adulthood.


8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
Prospective Depression
Low
Median
High
Gender Nonconformity
Gay/lesbian
Heterosexual