

SAME-SEX EXPERIENCE AND MENTAL HEALTH DURING THE TRANSITION BETWEEN ADOLESCENCE AND YOUNG ADULTHOOD

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Previous research has demonstrated that people who report same-sex experience tend to have poorer mental health than heterosexual people in adolescence and adulthood. Yet, little is known about how same-sex experience is associated with changes in mental health between the two life stages. Using data from the National Longitudinal Study of Adolescent Health ($n = 12,056$), this study assesses patterns of same-sex experience between adolescence and young adulthood and their consequences for changes in depressive symptoms, binge drinking, and drug use. Compared to people with no same-sex experience, those who report such experience only in adolescence show greater levels of mental health problems in adolescence, but they do not show any worse mental health changes during the transition into young adulthood. People who develop their first same-sex experience in young adulthood, however, tend to show worse changes, consistent with the argument that entry into a stigmatized role is psychologically harmful. Among females, those who report same-sex experience in both life stages also show worse mental health changes, indicating that the continuity in minority status contributes to their cumulative disadvantage. However, these differences are modest, and substantial amounts of variations in mental health changes are observed within each group. Findings are used to address the dynamic aspect of mental health disparity linked to sexuality.

Previous studies have shown that adolescents and adults who report same-sex experience have higher rates of mental health problems such as depression and substance use as compared to their heterosexual counterparts (for example, Safren and Heimberg 1999; Russell, Driscoll, and Truong 2002; Cochran, Sullivan, and Mays 2003), although strong conclusions cannot be drawn because of small effect sizes, negative findings, and methodological limitations (Savin-Williams 2005). These studies have used several different sexuality measures including attraction, contact, dating relationship, and self-

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identity. In this article, the phrase “same-sex experience (SSE)” inclusively refers to affective, behavioral, and cognitive dimensions of same-sex sexuality measured by these indicators.¹

The literature on social stratification and stress provides a useful framework for examining the mental health disparity linked to sexual orientation. A fundamental premise in the literature is that mental health disparities across social groups arise from unequal distributions of stressors including negative life events that disrupt daily routines and persistent problems in ongoing social relationships (Pearlin 1989; Turner, Wheaton, and Lloyd 1995). Stress exposure manifests in mental health problems if it overtaxes one’s psychological resources for adaptation. Social stratification inflicts more stressors on people with lower statuses by reducing opportunities and increasing constraints in their everyday lives (“minority stressors,” Meyer 2003). Discrimination, for example, results directly from unfair treatment of low-status individuals by high-status individuals. From this perspective, minority stressors can be understood as a consequence of mismatch between the society and the individual holding the minority status. These arguments have been used to explain mental health disparities linked to gender, race, and socioeconomic class (Kessler and McLeod 1984; Turner and Avison 2003).

Although sexual orientation has long been recognized as an important dimension of social stratification and basis for stigmatization (Goffman 1963; Plummer 1975), researchers have only recently begun to investigate how the status difference contributes to mental health disparities across sexuality groups (Meyer 2003). The phrase of “sexual minorities” is often used in this literature to highlight the heteronormative society’s marginalization of gay, lesbian, and bisexual people. Previous research has shown that sexual minorities are exposed to the following types of minority stressors: physical violence and verbal harassment (for example, Hershberger, Pilkington, and D’Augelli 1997; Smith 1998), anticipation of others’ negative responses (for example, Weinberg and Williams 1974), internalized homophobia (for example, Szymanski, Kashubeck-West, and Meyer 2008), and concealment of sexuality resulting in fear of discovery as well as feelings of guilt and inauthenticity (for example, Weinberg and Williams 1974). Within the sexual minority population, the degree of exposure to minority stressors varies across individuals, and coping behaviors can alleviate the impact of stressors if successful. However, sexual minorities’ overall greater exposure to stressors results in higher levels of mental health problems than heterosexual people (Meyer 2003).

One methodological limitation in previous research is its reliance on cross-sectional data, which precluded the ability to assess whether SSE is associated with *change in mental health* between life stages. Unknown is whether mental states of people reporting SSE in adolescence improve or further deteriorate as they leave adolescence and enter young adulthood. Some people’s SSE discontinues between these two life stages, and others go through their first experience (Laumann et al. 1994; Dickson, Paul, and Herbison 2003). These changes indicate important shifts in minority status and stress exposure, but their mental health consequences are previously unexamined. By investigating whether SSE patterns are associated with mental health changes between

adolescence and young adulthood, the study addresses the dynamic aspect of mental health disparity between sexual minorities and heterosexual people.

This article considers depressive symptoms, binge drinking, and drug use as mental health outcomes. Some people internalize stress and develop emotional symptoms such as depressive symptoms whereas others externalize stress by engaging in substance use and antisocial behaviors (Aneshensel, Rutter, and Lachenbruch 1991; Simon 2002; Rosenfield, Lennon, and White 2005). It is important to include both types of outcomes in the investigations of mental health disparities because types of stress responses may vary by across social groups.

Between adolescence and young adulthood, the overall level of depressive symptoms declines, while the frequency of substance use increases (Aseltine and Gore 1993; Gore et al. 1997; Schulenberg et al. 2000). Acquiring new roles as workers, completing compulsory education, and becoming increasingly independent from parents seem to contribute to the reduction of depressive symptoms (Aseltine and Gore 1993; Gore et al. 1997), whereas declining social control from parents and a growing desire for self-exploration are partly responsible for the increase in substance use (Bachman et al. 1996; Schulenberg et al. 2000; Arnett 2005). Beyond these overall patterns, living conditions and socialization experiences in early life stages, especially those linked to social stratification, can create individual and group differences in mental health changes (McLeod and Almazan 2003; Pearlin et al. 2005). Extending this literature, the present study investigates whether change and continuity in sexual minority status, characterized by SSE patterns between adolescence and young adulthood, add variations to mental health changes.

SSE PATTERNS AND MENTAL HEALTH IMPLICATIONS

Patterns of SSE are complex for three reasons. First, SSE has multiple dimensions including attraction, contact, relationship, and identity (Laumann et al. 1994). Second, individuals vary in the timing and sequence of sexual milestones (for example, first sexual contact) (Herdt and Boxer 1993; Dickson et al. 2003). Third, SSE is not necessarily stable across life stages, and the degree of fluidity varies across dimensions (Savin-Williams and Ream 2007).

This article classifies continuity and change in SSE into the following four categories: (1) no SSE; (2) SSE on at least one dimension in both stages; (3) development of first SSE on at least one dimension in young adulthood; and (4) discontinuation of SSE on all dimensions in young adulthood. Using this broad classification has the advantage of assessing continuity and change in minority status, although it has the disadvantage of oversimplifying the diversity in sexual development. Drawing from the literature on stress and life course, hypotheses are developed below to evaluate how people reporting each SSE pattern compare to those with no SSE in terms of mental health changes.

SSE in Both Life Stages—Stable Sexual Minority Status

People who report SSE in both adolescence and young adulthood should show worse mental health changes than those with no SSE because of their persistent and cumulative

exposure to minority stressors. Adolescents physically attack and verbally harass their peers who show signs of same-sex sexuality (Hershberger et al. 1997; Kosciw 2004). Traumatic events in early life stages in turn exert long-term damage on mental health (Kessler et al. 1997; Lloyd and Taylor 2006), and they contribute to cumulative mental health problems across life stages among people with socially disadvantaged statuses (Turner and Avison 2003; Pearlin et al. 2005). Heteronormativity also hinders sexual minorities' development of psychological and social resources (Safren and Heimberg 1999; Ueno 2005). Resource deficiency in turn increases their risk of mental health problems during the transition into young adulthood by undermining the ability to adapt to the new life stage (Aseltine and Gore 1993). Discrimination and harassment against sexual minorities continue to young adulthood in new social environments such as workplace (Mays and Cochran 2001).

These challenges associated with continuous SSE between adolescence and young adulthood may be greater for males than females. In adolescence, boys show more negative attitudes toward homosexuality, especially male homosexuality, than girls, and they pressure each other more to conform to traditional gender expectations (Horn 2007; Pascoe 2007). These factors may exacerbate straight boys' violence and harassment toward sexual minority boys. Sexual minority males continue to face greater stigma than females in adulthood (Herek 1986, 2002) and encounter more serious barriers to status attainment (Berg and Lien 2002; Pearson, Muller, and Wilkinson 2007). For these reasons, mental health disadvantages associated with SSE continuing from adolescence to young adulthood may be greater for males than females.

The negative mental health effects of continuous SSE between the two life stages may be ameliorated to some extent by coping behaviors and development of resilience. Cognitive abilities and social skills improve with age and promote coping effectiveness (Clausen 1986). Some individuals overcome their initial confusion and anxiety about discovering their same-sex sexuality (Troiden 1989) or become more effective in managing their social networks (Weinberg and Williams 1974). Similarly, for some people, integration into the sexual minority community helps people develop a sense of belonging and positive self-image as a sexual minority (Weinberg and Williams 1974; Troiden 1989).² These counterbalancing factors highlight the need to estimate the mental health consequences of the SSE pattern using longitudinal data.

Adolescence-Only SSE—Discontinuing Sexual Minority Status

People who report SSE only in adolescence should show mental health changes no worse than people without SSE. The discontinuity in SSE may serve as a turning point and eliminate or reduce their exposure to minority stressors. Major shifts in social roles during the transition into young adulthood may help people reconstruct their self-image and social networks, thereby increasing the ability to break away from any stressors linked to SSE in adolescence. In addition, adolescence-only same-sex experiences (same-sex contact and dating in particular) are sometimes interpreted as self-exploration or experimentation (Goode and Haber 1977; Harry and DeVall 1978;

Hewitt 1998), in which case, these individuals' exposure to minority stressors in adolescence may have little consequences for mental health in later life stages.

Another way to interpret SSE limited to adolescence is that people come to suppress their same-sex desires as they grow older. Suppression may be motivated by an effort to escape severe minority stressors in adolescence. However, suppression itself might become a stressor, as suggested by previous studies documenting negative mental health consequences of sexuality concealment (for example, Hetrick and Martin 1987) and sexual conversion therapy (Shidlo and Schroeder 2002; but see Spitzer 2003). In this case, adolescence-only SSE may be associated with negative mental health changes.

First SSE in Young Adulthood—Emerging Sexual Minority Status

Stress research shows that major life events such as changes in jobs and family composition may undermine mental health by disrupting routines and social networks and increasing the demand for adaptations to the new social environment (Thoits 1995). Extending this idea to romantic and sexual development in early life stages, Joyner and Udry (2000) and Meier (2007) recently showed that starting a dating relationship and having the first sexual encounter exert negative impact on mental health under certain circumstances.

These findings lead to an expectation that people who report their first SSE in young adulthood should show worse changes in mental health than those with no SSE. Becoming aware of same-sex attraction can jeopardize one's self-identity because many people grow up assuming they are heterosexual (Troiden 1989). Generally, life events that signify entry into stigmatized statuses and those that threaten self-identities tend to produce negative mental health consequences (Brown and Harris 1989; Reynolds and Turner 2008). Life events may also initiate the stress proliferation process (Pearlin et al. 2005); development of first SSE may lead to the development of chronic minority stressors such as internalized homophobia, discrimination, and strains in existing social networks. The initial exposure to these stressors may be particularly detrimental to mental health because people might not yet have mobilized coping resources. [1]

Sexual minority youth today live in a very different world than those in previous cohorts because of the increasing tolerance of same-sex sexuality in society over recent years (Loftus 2001). They are exposed to positive media images of sexual minorities and have access to extensive information on sexuality through the Internet (Savin-Williams 2005; Cohler and Hammack 2006). These conditions may alleviate stress related to first awareness of same-sex sexuality to some extent, but people who experience the unexpected shift in their sexuality should show overall worse changes in mental health than those who do not experience such shift. [2] [3]

The negative mental health changes linked to emerging SSE may be stronger for females than males for three reasons. First, females' first SSE tends to take place in ongoing social relationships such as friendships, whereas males' first SSE has a greater chance of involving strangers (Herdt and Boxer 1993). Therefore, females' SSE may engage stronger emotions and require greater psychological adjustments. Second, females' social relationships tend to involve greater levels of emotional closeness and

self-disclosure than males' relationships (Fehr 1996), which may result in (anticipation of) greater disruptions in existing social networks because of emerging SSE. Third, women are more likely than men to incorporate child-rearing into their future planning (Brown and Harris 1989). Therefore, development of first SSE may require greater adjustment of future plans for females (Sang 1993).

GENDER DIFFERENCES IN STRESS RESPONSES

In addition to the gender differences in the strength of the relationships between each SSE pattern and mental health changes, females and males may differ in the relative responsiveness in different mental health outcomes. In general, females tend to internalize stress and show emotional responses such as depressive symptoms, whereas males tend to externalize stress by engaging in substance use and antisocial behaviors (Simon 2002; Rosenfield et al. 2005). Extending these findings, mental health consequences of continuing and emerging SSE may be more apparent in depressive symptoms for females and in binge drinking and drug use for males. A link between same-sex sexuality and gender display may complicate these gender differences in stress responses, however. The gender difference in stress responses results partly from internalization of gender expectations (Rosenfield et al. 2005), but sexual minorities do not conform to traditional gender expectations to the same degree as heterosexual people (Lippa 2000; Udry and Chantala 2006). Sexual minorities' gender-atypical stress responses may, therefore, mask the gender-specificity of mental health outcomes in the relationships between SSE patterns and mental health changes to some extent.

HYPOTHESES

The purpose of this study is to examine whether SSE patterns are related to mental health changes between adolescence and young adulthood. Drawing from the literature on social stratification and stress (Pearlin 1989; Turner et al. 1995), scholars have argued that sexual minorities' mental health disadvantages result from stressors that the heteronormative society imposes on them (Meyer 2003). Building on this argument, continuity and change in SSE between the two life stages should influence mental health by shifting the level and nature of stress exposure. The mental health changes associated with some SSE patterns may depend on gender because females and males differ in how SSE patterns are associated with minority stress exposure and in how they respond to minority stressors. The following hypotheses are developed from the literature.

Hypothesis 1: Compared to people with no SSE, those who report SSE in both life stages should show worse mental health changes, based on the argument that stable sexual minority status results in persistent and cumulative stress exposure.

Hypothesis 1a: The mental health disadvantages associated with continuous SSE between the two life stages should be greater for males than females, based on the argument that society imposes greater stigma and creates more serious barriers to status attainment for sexual minority males.

Hypothesis 2: Compared to people with no SSE, those who report SSE only in adolescence should show no worse mental health changes, based on the argument that discontinuity in sexual minority status reduces exposure to any minority stressors that developed in adolescence.

Hypothesis 3: Compared to people with no SSE, those who report first SSE in young adulthood should show worse mental health changes, based on the argument that entry into sexual minority status results in acute stress exposure.

Hypothesis 3a: The mental health disadvantages associated with emerging SSE in young adulthood should be greater for females than males, based on the argument that the psychological impact of emerging SSE is magnified for females because of their greater chance of having first SSE in ongoing social relationships, greater emotional intimacy in their social relationships, and greater adjustment required for future plans as a response to emerging SSE.

Hypothesis 4: The negative mental health changes associated with continuing and emerging SSE should appear more strongly in depressive symptoms for females and in binge drinking and drug use for males.

METHODS

Data and Sample

Data came from the National Longitudinal Study of Adolescent Health (“Add Health”). In 1994, 80 high schools and 52 feeder schools (middle schools that sent graduates to those high schools) in the United States were selected for the school-wide survey (In-School Survey). Among the initial respondents, 20,745 students participated in an in-depth interview in 1995 (Wave 1 In-Home Interview). About a year later, Wave 2 In-Home Interviews were conducted with the same respondents, minus those who had graduated. All Wave 1 respondents were eligible to participate in the third wave of data collection between 2001 and 2002 (Wave 3 In-Home Interview). The Wave 3 data included 15,170 respondents (73.3 percent of the Wave 1 sample).³

For this article, Waves 1 and 2 were treated as adolescent data, and Wave 3 as young adulthood data. To avoid age overlap in the operationalization of the two life stages, the analysis focused on people under 20 at the time their adolescent mental health was measured in Wave 1 or 2 and who were age 20 or older at the time of the Wave 3 Interview. Because of the age restriction, the analysis focused on people who were middle and high school students at typical age.

A few sample restrictions were applied to the analysis. Among 15,170 people who participated in the Wave 3 Interview, 848 respondents were excluded because they were not part of the core sample and thus did not have sampling weights. An additional 1684 respondents were dropped because they did not meet the age criteria mentioned above. Fourteen respondents who reported their biological sex inconsistently across waves were also deleted. Another 598 respondents who lacked valid data on key variables were excluded.⁴ The final operational sample in the primary analysis consisted of 6,375 females and 5683 males.

Measures

The key variables are described below. Table 1 presents means and standard deviations of each variable.

Same-Sex Experience

Add Health included questions about three dimensions of SSE: attraction, dating relationships, and self-identity (see Savin-Williams and Ream 2007 for descriptive analysis). Respondents reported on their attraction in all three waves. The questions in Waves 1 and 3 asked, "Have you ever had a romantic attraction to a female/male?" The questions in Wave 2 measured attraction since the Wave 1 Interviews. For each life stage, responses were dichotomously coded to indicate presence and absence of same-sex attraction.

TABLE 1. Sample Characteristics by Gender

	Females (n = 6,375)		Males (n = 5,683)	
	Mean ^a	SD	Mean ^a	SD
Age in young adult wave	22.11	1.61	22.22	1.53
Race/ethnicity				
White	.68		.68	
Black	.16		.15	
Hispanic	.11		.12	
Others	.05		.06	
Raised by single parent	.32		.30	
Parents' education				
Less than HS	.16		.15	
High school graduate	.37		.36	
Some college	.13		.13	
College graduate	.32		.34	
	.25		.25	
Depressive symptoms				
Adolescent wave	6.48	4.81	5.09	3.77
Young adult wave	4.86	4.57	4.02	3.61
Change	-1.61	5.36	-1.07	4.18
Binge drinking				
Adolescent wave	1.37	2.49	1.94	2.95
Young adult wave	1.85	2.55	3.17	3.12
Change	.48	3.12	1.24	3.68
Drug use				
Adolescent wave	1.45	5.79	2.46	8.19
Young adult wave	2.06	7.27	4.41	10.23
Change	.62	8.15	1.95	11.40

^aFor categorical variables, proportions are presented, instead of means.

Wave 1 included three sets of questions about dating relationships. In the first set, respondents reported whether they had engaged in any “romantic” relationships in the last 18 months. To solicit information about relationships adolescents did not necessarily consider as romantic, those who reported none were asked whether they had held hands with, kissed, or told anyone (other than a family member) that they liked or loved him or her in last 18 months. When respondents reported having engaged in all three activities, Add Health called it a “liked” relationship. Respondents also reported any otherwise unreported sexual relationships (“nonromantic sexual” relationships). The sex of each partner (up to three romantic or liked partners and up to three nonromantic sexual partners) was recorded. The Wave 2 Interview included the same sets of questions about dating relationships occurring since Wave 1. In Wave 3, respondents reported romantic or sexual relationships since summer of 1995. For the present article, dating experience in adolescence was dichotomously coded to indicate whether respondents reported any same-sex relationships in Wave 1 or 2. Similarly, dating experience in young adulthood was coded to indicate whether respondents reported any same-sex relationships in Wave 3, excluding those that ended before their 20th birthday.

Unlike the two previous waves, the Wave 3 Interview included a question about sexual identity. Respondents were asked, “Please choose the description that best fits how you think about yourself.” Responses were dichotomized to distinguish people with any indication of homosexuality or bisexuality (“mostly heterosexual but somewhat attracted to people of the same sex,” “bisexual,” “mostly homosexual but somewhat attracted to people of the opposite sex,” “100 percent homosexual”) from those with no indication of homosexuality or bisexuality (“100 percent heterosexual,” “not sexually attracted to either males or females”). The decision to combine “mostly heterosexual” with other responses indicating stronger same-sex identity was based on assumptions that some individuals may underestimate degrees of same-sex sexuality because of stigma and that self-awareness of any deviation from heterosexuality has mental health implications. Consistent with these assumptions, an exploratory analysis showed that people identifying as “mostly heterosexual” were much more likely to report same-sex attraction in adolescence and young adulthood than those who identified as “100 percent heterosexual,” and they showed a pattern of mental health changes similar to other people reporting same-sex identity.

Coding presence and absence of same-sex attraction, dating, and identity in adolescence and young adulthood resulted in 32 possible combinations, and they were classified into the following four categories: (1) no SSE (76.8 percent of female sample; 83.0 percent of male sample); (2) adolescence only (6.4 percent of female sample; 8.8 percent of male sample); (3) young adulthood only (12.7 percent of female sample; 6.2 percent of male sample); and (4) both life stages (4.1 percent of female sample; 2.0 percent of male sample).^{5,6}

Mental Health

Mental health measures were available in all three waves. To measure *depressive symptoms*, a modified version of the Center for Epidemiologic Studies Depression Scale (CES-D)

(Radloff 1977) was used. The short version consisted of nine items and asked about physiological and psychological symptoms during past seven days (for example, “you were sad,” “you could not shake off the blues”; 0 = never or rarely to 3 = most of the time or all of the time). Like the original scale, which consists of 20 items, the short version had a good inter-item reliability (Cronbach’s $\alpha = .79$). *Binge Drinking* was a sum of two seven-point items, asking on how many days they “drank five or more drinks in a row” and “gotten drunk or ‘very, very high’ on alcohol” over the past 12 months (0 = none to 6 = every day or almost every day) ($r = .82$). *Drug use* was a sum of four items, each of which asked about how many times respondents had used a specific type of drug in last 30 days. To measure changes in mental health between adolescence and young adulthood, Wave 3 scores were subtracted from Wave 2 scores. When Wave 2 mental health scores were not available, Wave 3 scores were subtracted from Wave 1 scores. A dichotomous variable was created to flag these respondents and entered in regression models.⁷

This article uses the continuous conceptualization of mental health, unlike some previous studies that contrasted presence and absence of mental disorders (for example, Cochran et al. 2003; Meyer 2003). Although the measures included in Add Health could not be used to determine whether respondents met the clinical diagnoses of mental disorders, they could be dichotomized to identify those who reported particularly high levels of depressive symptoms and high frequencies of binge drinking and drug use. A follow-up analysis based on the dichotomized outcomes led to conclusions similar to those based on the continuous outcomes.⁸

Control Variables

The analysis included four sociodemographic variables as statistical controls because they were associated with patterns of sexual development (Laumann et al. 1994) and mental health (Brown, Meadows, and Elder 2007; Cochran et al. 2007; Costello et al. 2008). Sociodemographic variables included *age* (measured in Wave 3), *race* (four dummy variables including non-Hispanic white, non-Hispanic black, Hispanic, and others), *parents’ educational background* (four dummy variables including less than high school, high school graduate, some college, and college graduate), and *family structure* (indicator for single parent family).

Analysis Plan

Bivariate analysis compared mental health outcomes across people reporting the four SSE patterns. In multivariate analysis, OLS models regressed mental health changes on SSE patterns (“no SSE” as the reference), mental health scores in adolescence, and sociodemographic backgrounds. Adolescent mental health was entered as a control variable to take into account the tendency for people with extreme values in adolescence to show moderate values in young adulthood and thus greater changes than other people. This longitudinal model is mathematically equivalent to the model that specifies adulthood mental health as the dependent variable and controls for adolescent mental health, and the two specifications produce the same conclusions about group differences (Allison 1990; Finkel 1995). Change scores were used as the dependent variables in this

study to maintain consistency with the theoretical framework. The primary set of regression models was run separately for females and males to demonstrate the relationships between SSE patterns and mental health changes within each gender. To examine gender differences in these relationships, multiplicative terms between gender and SSE patterns were tested in a combined sample of females and males. Throughout the analyses, I used the “survey design” routine in STATA 9.2, which corrected standard errors for data dependency among those who attended the same schools in adolescence. As Chantala (2006) recommends, a longitudinal weight variable was used along with subpopulation specification, so the results are generalizable to people who were enrolled in 7th through 12th grades in U.S. schools during the school year 1994–1995 and met the age criteria mentioned above.

RESULTS

Descriptive Analysis

Table 2 presents means and standard deviations of mental health scores by gender and SSE patterns. For each mental health outcome, adolescence scores (Wave 2 or 1), young adulthood scores (Wave 3), and change scores are shown. The overall patterns of mental health changes were consistent with previous studies—a reduction in depressive symptoms and increases in binge drinking and drug use (Aseltine and Gore 1993; Schulenberg et al. 2000). The cross-sectional relationships between SSE and mental health were also in line with previous studies (for example, Safren and Heimberg 1999; Cochran et al. 2003): In each life stage, those who reported SSE tended to show poorer mental health than those who did not, although only some of these group differences were significant. The group differences were larger and more consistent across the three outcomes for females than males.

More importantly, continuity and change in SSE were associated with degrees of mental health changes. People who went through their first SSE in young adulthood showed the worst changes among the four groups (the smallest reduction in depressive symptoms and the largest increases in binge drinking and drug use). These group differences were greater for females than males. People reporting SSE only in adolescence and those reporting SSE in both life stages showed mental health changes somewhat better or equivalent to the no experience group, but some of their mental health disadvantages relative to the no experience group remained in young adulthood. Figure 1 visually demonstrates the findings using depressive symptoms as an example.

The following issues need to be considered when interpreting the bivariate results. First, although the large sample size helped detect significant group differences, those differences were modest, and many people in each group showed healthy mental states in both life stages. Second, the patterns were somewhat inconsistent across the three mental health outcomes and between genders. Third, the extent of change in mental health depended on baseline mental health levels in adolescence. The last two points are elaborated in the multivariate analysis.

TABLE 2. Continued

Males											
	No Experience (n = 4,720)		Adolescence Only (n = 498)		Young Adult Only (n = 353)		Both Life Stages (n = 112)		Pairwise Tests ^a		
	Mean	95 percent CI	Mean	95 percent CI	Mean	95 percent CI	Mean	95 percent CI	No Exp. vs. Ado. Only	Ado. Only vs. Adult. Only	Both Stages
Depressive symp.									Overall Test	F(3, 128)	
Adolescent wave	4.89	4.71, 5.07	5.88	5.48, 6.28	5.78	5.08, 6.47	7.71	6.48, 8.95	12.61	***	***
Young adult wave	3.87	3.71, 4.04	4.42	4.02, 4.83	5.06	4.47, 5.65	5.22	4.44, 6.01	8.14	***	***
Change	-1.02	-1.20, -0.84	-1.46	-1.87, -1.05	-0.72	-1.53, 0.10	-2.49	-3.89, -1.10	2.82	*	*
Binge drinking											
Adolescent wave	1.87	1.68, 2.05	2.57	2.06, 3.09	1.74	1.21, 2.27	2.48	1.59, 3.36	3.27	*	*
Young adult wave	3.17	2.95, 3.40	3.27	2.83, 3.70	2.95	2.37, 3.52	3.32	2.49, 4.14	0.38		
Change	1.31	1.11, 1.50	0.70	0.17, 1.23	1.21	0.51, 1.91	0.84	-0.38, 2.06	1.86		
Drug use											
Adolescent wave	2.20	1.78, 2.61	4.08	2.82, 5.34	2.80	1.39, 4.21	4.79	2.54, 7.04	4.96	**	*
Young adult wave	4.22	3.73, 4.71	5.51	3.96, 7.05	5.18	3.73, 6.64	5.26	3.03, 7.50	1.58		
Change	2.02	1.50, 2.54	1.42	-0.25, 3.10	2.38	0.43, 4.33	0.47	-2.15, 3.10	0.60		

^aSignificance for pairwise tests is adjusted using the Bonferroni method.

p* < 0.05, *p* < 0.01, ****p* < 0.001.

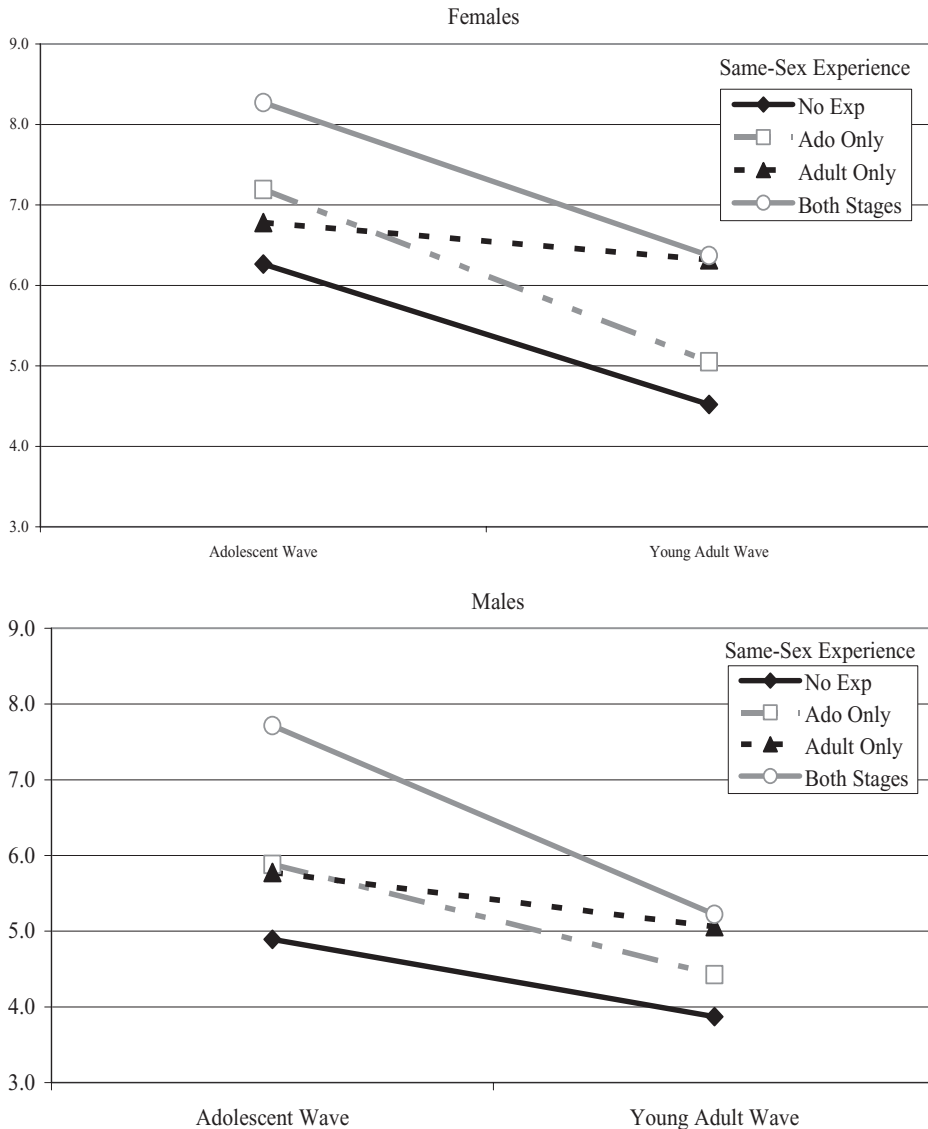


FIGURE 1. Depressive Symptoms by Patterns of Same-Sex Experience.

Multivariate Analysis

To examine the relationships between SSE patterns and mental health changes within each gender, OLS models were run separately for females and males (see Table 3). People with no SSE were used as the reference category.

Females

Females showed many group differences in mental health changes. People reporting SSE in both life stages showed worse mental health changes in all three outcomes than those

TABLE 3. Changes in Mental Health Regressed on Patterns of Same-Sex Experience

	Females (n = 6,375)			Males (n = 5,683)		
	Change in:			Change in:		
	Depressive Symptoms	Binge Drinking	Drug Use	Depressive Symptoms	Binge Drinking	Drug Use
Mental health in adolescence ^a	-0.69*** (0.02)	-0.79*** ^b (0.02)	-0.73*** (0.04)	-0.67*** (0.02)	-0.73*** (0.02)	-0.69*** (0.04)
Same-sex experience (ref: No experience)						
Adolescence only	0.17 (0.27)	-0.16 (0.17)	0.51 (0.52)	0.11 (0.20)	0.03 (0.19)	0.61 (0.71)
Young adulthood only	1.66*** ^b (0.24)	0.81*** ^d (0.13)	3.31*** ^c (0.49)	0.83** (0.30)	-0.17 (0.24)	0.74 (0.78)
Both life stages	1.32*** (0.38)	0.94*** (0.24)	2.05*** (0.55)	0.41 (0.43)	0.12 (0.39)	0.53 (1.14)
Age in Wave 3	-0.12* (0.06)	-0.08** (0.03)	-0.33*** (0.08)	-0.11* (0.05)	-0.11** (0.04)	-0.48** (0.16)
Race/ethnicity (ref: white)						
Black	0.51* (0.20)	-1.15*** (0.09)	-0.57* (0.26)	0.60*** (0.17)	-1.54*** (0.18)	-0.83 (0.51)
Hispanic	0.52* (0.24)	-0.57*** (0.14)	-0.38 (0.35)	0.31 (0.17)	-0.50** (0.18)	-0.37 (0.63)
Others	0.37 (0.26)	-0.75*** (0.15)	-0.41 (0.47)	0.73* (0.35)	-0.69* (0.29)	-1.06 (0.83)
Raised by single parent	0.15 (0.17)	-0.05 (0.09)	0.57* (0.25)	-0.05 (0.16)	-0.05 (0.12)	1.34** (0.43)
Parents' education (ref: HS graduate)						
Less than high school	0.52* (0.21)	-0.14 (0.13)	0.07 ^c (0.36)	0.37 (0.22)	-0.61*** (0.17)	-1.75** (0.56)
Some college	-0.23 (0.22)	0.23 (0.12)	0.10 (0.32)	-0.12 (0.24)	0.36* (0.18)	-0.14 (0.71)
College graduate	-0.17 (0.17)	0.63*** (0.11)	0.37 (0.29)	-0.16 (0.13)	0.67*** (0.15)	0.34 (0.46)
Adolescent mental health based on W1 as Opposed to W2	-0.17 (0.17)	-0.06 (0.10)	-0.25 (0.22)	-0.09 (0.15)	-0.26* (0.13)	-0.19 (0.51)
Constant	5.01*** (1.30)	3.41*** (0.66)	8.27*** (1.74)	4.64*** (1.03)	5.42*** (0.94)	14.30*** (3.56)
R ²	0.38	0.43	0.28	0.36	0.38	0.26

^aRefers to adolescent mental health measures corresponding to the dependent variables.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Note: Unstandardized OLS coefficients are presented with standard errors in parentheses.

Gender interactions were tested using a combined sample of males and females. Each model included all predictors from the gender stratified model, female, and all interaction terms between each predictor and female. Significant gender interactions are denoted by superscripts: ^b $p < 0.05$; ^c $p < 0.01$; ^d $p < 0.001$.

with no SSE, consistent with Hypothesis 1 based on the argument that stable minority status contributes to cumulative and persistent exposure to minority stressors. Females reporting SSE only in adolescence, however, did not show any worse changes than those without SSE, consistent with Hypothesis 2 based on the argument that discontinuity in minority status reduces exposure to any minority stressors that developed in adolescence. Females reporting first SSE in young adulthood also showed worse mental health changes in all three outcomes, consistent with Hypothesis 3 based on the argument that entry into a minority status disrupts life routines, self-identity, and social relationships.

Other comparisons were made across the three female groups who reported some SSE by testing equality of dummy variable coefficients. The following significant differences appeared: The adulthood only group showed significantly worse mental health changes than the adolescence only group in depressive symptoms ($F(1, 130) = 20.56, p < 0.001$), binge drinking ($F(1, 130) = 18.99, p < 0.001$), and drug use ($F(1, 130) = 18.78, p < 0.001$); and both life stage group showed significantly worse mental health changes than the adolescence only group in depressive symptoms ($F(1, 130) = 6.75, p < 0.05$) and binge drinking ($F(1, 130) = 14.46, p < 0.001$).

Males

Males showed fewer and smaller group differences in mental health changes than females. Males reporting their first SSE in young adulthood showed a smaller reduction in depressive symptoms than those without SSE, but such difference did not appear for binge drinking or drug use. Therefore, among males, Hypothesis 1 was supported only for depressive symptoms. Like their female counterpart, males who reported SSE only in adolescence showed no worse mental health changes than those without SSE, consistent with Hypothesis 2. Contrary to the results for females and to Hypothesis 3, males reporting SSE in both life stages showed no worse mental health changes than those without SSE. Coefficient equality tests revealed only one additional significant group difference: Reduction in depressive symptoms was significantly smaller for males reporting first SSE in young adulthood than those reporting SSE only in adolescence ($F(1, 130) = 4.53, p < 0.05$).

Gender Interaction

Gender differences in the relationships between SSE patterns and mental health changes were tested in a combined sample of females and males. Each model included all predictors from the gender stratified models, female, and all multiplicative terms between each predictor and female. Significant gender interactions are denoted by superscripts in Table 3. Given stronger stigma and more serious barriers to status attainment, males were expected to show stronger mental health disadvantages because of continuing SSE from adolescence to young adulthood (Hypothesis 1a). As discussed above, gender stratified models showed a trend opposite of this hypothesis—the mental health disadvantages associated with continuing SSE were observed only for females. The analysis based on the combined sample showed, however, that females and males did not significantly differ in the magnitude of mental health disadvantages associated with continuous SSE.

The analysis based on the combined sample also showed that the mental health changes associated with emerging SSE in young adulthood were significantly worse for females in all three outcomes. The result was consistent with Hypothesis 3a based on the argument that the psychological impact of emerging SSE is intensified for females because of their greater emotional engagement in first SSE and greater risks of disruptions in their social relationships and future plans. Overall, gender differences were consistent across the three mental health outcomes, contrary to Hypothesis 4 that females should be more responsive to SSE patterns in internalizing problems (depressive symptoms) whereas males should be more responsive in externalizing problems (binge drinking and drug use).

Testing Sensitivity of Sexuality Classification

For two reasons, follow-up analyses were necessary to test whether the results were sensitive to how SSE patterns were classified. First, the primary analysis grouped respondents into four categories depending on presence and absence of SSE in the two life stages, but the three dimensions of SSE may have been linked to different types of minority stressors, and continuity and change on each dimension might have had unique consequences for mental health change. It is possible, for example, that people who engaged in same-sex relationships were more visible to others as sexual minorities and thus more susceptible to explicit discrimination than those reporting same-sex attraction only. Second, implications of limitations in each sexuality measure needed to be examined. The self-identity measure was available only in the young adulthood wave. Because the attraction measure in the young adulthood wave asked about lifetime experience, the continuity of attraction could not be determined. Moreover, a substantial number of respondents reported same-sex attraction in Wave 1 or 2 (8.6 percent), but a majority of these respondents (73.4 percent) did not report same-sex attraction again in Wave 3. Perhaps the phrase "attraction" was unclear to respondents when asked in adolescence, or some respondents who developed heterosexual identity in adulthood might have suppressed any same-sex attraction that they had reported in adolescence.

One set of supplemental analyses used dating relationships as the sole indicator of SSE. As shown in Table 4, the results converged with the primary analysis on three main points: (1) compared to people with no same-sex relationship, those reporting first same-sex relationships in young adulthood showed worse changes in all mental health outcomes for females, but male counterparts showed no or only small differences; (2) people reporting same-sex relationships only in adolescence showed no worse mental health changes for females or males; and (3) females reporting same-sex relationships in both life stages showed worse mental health changes, although the association was limited to binge drinking. An unexpected association appeared in the supplemental analysis: Males reporting same-sex relationships in both life stages showed *greater* reductions in depressive symptoms than the no relationship group. The discrepancy from the primary analysis might have partly resulted from the small number of males reporting this pattern of same-sex relationships ($n = 25$).

TABLE 4. Changes in Mental Health Regressed on Patterns of Same-Sex Relationships (Unstandardized OLS Coefficients of Key Variables)

	Females (n = 6,375)			Males (n = 5,683)		
	Change in:			Change in:		
	Depressive Symptoms	Binge Drinking	Drug Use	Depressive Symptoms	Binge Drinking	Drug Use
No same-sex relationship (reference)						
Adolescence only	0.54 (0.39)	-0.39 (0.22)	1.04 (0.77)	0.17 (0.40)	-0.40 (0.36)	2.51 (1.85)
Young adulthood only	1.26* (0.56)	1.13*** (0.28)	2.67** (0.95)	0.19 (0.47)	0.69* (0.33)	0.75 (1.60)
Both life stages	-1.39 (0.84)	1.74* (0.71)	3.03 (2.47)	-1.64* (0.64)	0.68 (0.98)	-1.89 (2.11)

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Note: Standard errors are presented in parentheses.

Each model also included the following variables: mental health in adolescence, age in Wave 3, race, single parent family, parent education levels, flag for adolescent mental health based on W1 as opposed to W2.

Another set of supplemental analyses used a coding scheme of SSE similar to the primary scheme, but it separated from the existing categories, that is, people whose SSE was limited to attraction in adolescence or attraction in young adulthood. As shown in Table 5, the results revealed that females who reported development of first same-sex attraction in young adulthood without same-sex dating or identity showed worse mental health changes than the no experience group for all three outcomes. Further, the degrees of changes were comparable to females reporting development of their first same-sex dating relationships or self-identity. Males who reported their first same-sex attraction in young adulthood without same-sex dating or identity tended to show smaller reductions in depressive symptoms than the no experience group, but the association did not reach significance as it did for males who reported their first dating relationships or identity in young adulthood. The other group reporting a change only in attraction (that is, same-sex attraction only in adolescence) was similar to those who reported same-sex dating relationships only in adolescence in that they showed no worse mental health changes than the no experience group.

The third set of supplemental analyses excluded respondents whose continuity of SSE was not completely clear because of the lifetime reporting format of the attraction question in young adulthood. For example, for people who reported same-sex attraction in young adulthood without same-sex dating or identity, it was not clear whether their SSE was present in both life stages or limited to adolescence. Excluding these respondents had little bearing on the relationships between SSE patterns and mental health changes for both females and males.

TABLE 5. Changes in Mental Health Regressed on Patterns of Same-Sex Experience Using an Alternative Coding Scheme (Unstandardized OLS Coefficients of Key Variables)

	Females (n = 6,375)			Males (n = 5,683)		
	Change in:			Change in:		
	Depressive Symptoms	Binge Drinking	Drug Use	Depressive Symptoms	Binge Drinking	Drug Use
No same-sex experience (reference)						
Adolescence only	0.54 (0.51)	-0.42 (0.26)	1.30 (0.93)	0.11 (0.41)	-0.34 (0.40)	2.53 (2.06)
Young adulthood only	1.71*** (0.25)	0.76*** (0.14)	3.31*** (0.54)	0.80* (0.35)	-0.03 (0.28)	1.17 (0.98)
Both life stages	1.32*** (0.38)	0.94*** (0.24)	2.05*** (0.55)	0.41 (0.43)	0.12 (0.39)	0.53 (1.14)
Same-sex attraction in adolescence	-0.07 (0.28)	0.02 (0.23)	-0.02 (0.52)	0.12 (0.23)	0.14 (0.23)	0.08 (0.77)
Same-Sex Attraction in young adulthood	1.35** (0.51)	1.13*** (0.31)	3.30* (1.34)	0.94 (0.52)	-0.61 (0.47)	-0.62 (0.99)

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Note: Standard errors are presented in parentheses.

Each model also included the following variables: mental health in adolescence, age in Wave 3, race, single parent family, parent education levels, flag for adolescent mental health based on W1 as opposed to W2.

Coding of same-sex experience is similar to the coding scheme used for the main analysis (Table 3). For this table, people who reported same-sex attraction only in one life stage without any other same-sex experience was separated from the existing categories.

To summarize, the relationships between SSE patterns and mental health change were not strongly affected by classifications of SSE. The supplemental analyses only utilized SSE measures available in Add Health, however. Further examination will require alternative longitudinal data with more comprehensive SSE measures.

DISCUSSION

The purpose of this study was to examine whether SSE patterns are associated with mental health changes between adolescence and young adulthood. During this period, the overall level of depressive symptoms declines while the frequencies of binge drinking and drug use increase, but the degrees of these changes vary across groups of people who report different SSE patterns, and the group differences further depend on gender.

People who report SSE only in adolescence may have somewhat poorer mental health *in adolescence*, but their gap from people with no SSE narrows in young adulthood. The finding is consistent with the argument that discontinuity in SSE reduces or

eliminates exposure to minority stressors and helps prevent exacerbation of their mental health disadvantage. It is important to note, however, that these people's mental health changes are not significantly better than those of the no SSE group when mental health in adolescence is taken into account. Therefore, this group's reduction of mental health disadvantages do not result from discontinuation of SSE itself, but it largely stems from the general tendency that people who have poorer mental health in adolescence tend to show greater improvement during the transition into young adulthood. Further, the data provided no information about how these people's SSE discontinued. The finding therefore does not indicate that suppressing same-sex desire prevents exacerbation of mental health disadvantage. Instead, previous research suggests that suppression negatively affects mental health (Hetrick and Martin 1987; Shidlo and Schroeder 2002).

Among the four SSE patterns, emerging SSE in young adulthood is associated with the worst mental health changes. The finding is consistent with the argument that major life events, especially those that threaten self-identity and signal entry into a stigmatized status, undermine mental health (Brown and Harris 1989; Reynolds and Turner 2008). This result has important implications for the existing literature on the mental health disparity between sexual minorities and heterosexual people. First, previous cross-sectional studies tended to attribute the disparity to ongoing stressors in sexual minorities' daily lives (see review in Meyer 2003), but the present findings indicate that the mental health gap might also reflect sexual minorities' initial responses to the development of their first SSE. Second, the present finding based on longitudinal data is consistent with the causal direction assumed but not directly tested by previous cross-sectional studies: SSE increases mental health problems. The reverse causal direction is not explicitly tested in this study and, thus, requires more attention in future research. 4

SSE that continues from adolescence to young adulthood is associated with undesirable mental health changes, but only for females. It should be remembered that females and males in this group tend to show poorer mental health in adolescence than those with no SSE, although the gap in males is limited to depressive symptoms. Although people who show poor mental health in adolescence tend to narrow the gap with other people in young adulthood, females reporting continuous SSE do not improve to the same extent. Put it differently, the magnitude of this female group's mental health disadvantage in young adulthood reflects their worse mental health in adolescence as well as their lack of improvement between the two life stages.

Although the results were overall consistent with the assumption that heteronormativity imposes stressors on people holding sexual minority status, the image of troubled sexual minorities should not be overemphasized. The mental health differences were rather small especially among males, and many people maintain good mental health in adolescence and young adulthood, regardless of their SSE patterns. Moreover, there are great degrees of variability in mental health changes *within* each SSE category. These results may indicate the presence of counterbalancing factors such as coping behaviors and development of resilience.

Gender Differences

Analysis indicated that females are more negatively affected than males by development of first SSE. The results are consistent with previous findings about women's sexuality, social relationships, and life planning. Females' first SSE tends to develop in ongoing social relationships (Herdt and Boxer 1993), which may increase emotional intensity in their first SSE. Second, females' social relationships engage stronger emotions than men's relationships, and emerging SSE may thus create greater disruptions in existing social networks (Fehr 1996). Third, emerging SSE may require greater adjustment in women's future plans (Sang 1993) because the diminishing chance of traditional marriage and parenting affects women's future plans more strongly than men's plans (Brown and Harris 1989).

No gender differences were observed in the relationship between continuous SSE and mental health changes, however. The results thus run counter to previous findings that sexual minority males face greater stigma in adolescence and adulthood than females (Herek 1986, 2002; Horn 2007) and that they experience more serious constraints on status attainment (Berg and Lien 2002; Pearson et al. 2007). One possible explanation is that stressors associated with emerging SSE (for example, identity confusion, disruptions in life routines, existing social networks, and future plans) have more enduring effects for females than males, thereby contributing to their cumulative disadvantages.

The gender differences in the relationships between SSE patterns and mental health changes are consistent across the three mental health outcomes. The results, therefore, contradict that women internalize stress by showing emotional symptoms such as depression whereas men externalize it by engaging in substance use and antisocial behaviors (Simon 2002; Rosenfield et al. 2005). The gender differences in types of responses to SSE patterns might have been blurred by the link between same-sex sexuality and gender display—people who report SSE are more likely than others to display gender nonconforming behaviors (Lippa 2000; Udry and Chantala 2006) and may not respond to minority stressors in gender-typical ways.

Limitations and Future Directions

The sexuality measures had some limitations. First, sexual identity was measured only in the young adulthood wave. Second, the attraction measure in young adulthood asked about life-time experience and thus reduced the ability to determine the continuity of attraction, and some respondents gave inconsistent answers about previous attraction across waves. Third, the study only identified presence and absence of SSE in two life stages, but mental health consequences may depend on how these experiences take place and how individuals perceive them. Future studies should collect information about quality of same-sex relationships, subjective importance and meaning of gay, lesbian, and bisexual identity, and to whom attraction is directed. Fourth, the present study is based on the assumption that continuity and change in sexual minority status shift the level of exposure to minority stressors, but these stressors were not explicitly measured. Exploratory analyses were conducted using indirect measures of minority stressors (for

example, problems with school peers, conflict with parents, unsuccessful educational attainment, financial problems in young adulthood) as well as measures of coping resources available in Add Health (for example, self-esteem, closeness to parents, closeness to friends). These variables did not mediate the effects of SSE patterns, however. Future studies including more direct and extensive measures of minority stressors and coping resources will advance knowledge on underlying mechanisms.

This study focused on two forms of changes in SSE—development of first experience and discontinuation of experience on all dimensions. Future research may identify mental health consequences of other types of changes (for example, development of first dating relationship following self-awareness of same-sex attraction). In the present analysis, people reporting SSE only and those reporting both same-sex and opposite-sex experiences were combined. Research is necessary to investigate whether these subgroups show different patterns of mental health changes and whether the shift *between* same-sex and both-sex experiences influences mental health (Stokes, Damon, and McKirnan 1997).

CONCLUSIONS

The present study builds on previous cross-sectional studies that demonstrated greater levels of mental health problems among sexual minorities. The study underscores that the disparity is dynamic because SSE is fluid across life stages. Continuity and change in SSE are associated with mental health changes, consistent with the argument that SSE patterns shift the level and nature of minority stress exposure. The associations between SSE patterns and mental health changes depend on gender, indicating that the meaning and implications of SSE differ between females and males.

The observed relationships between SSE patterns and mental health changes may be unique to this period between adolescence and young adulthood. For people who have SSE only in adolescence, major shifts in social roles and social networks during the life stage transition might help them break away from previous minority stressors. These shifts, however, also require adaptations and may create additional constraints on everyday lives for people with continuing and emerging SSE who are faced with minority stressors in young adulthood. Changes in SSE take place in later life stages as well, and future research on SSE and mental health will require attention to unique aspects of those life stages.

NOTES

¹Thus, the phrase “sexual experience” is not limited to behaviors such as sexual contact and dating in this article, but it is used more broadly to include internal experiences (for example, feeling attracted to a same-sex person, seeing oneself as homosexual or bisexual). This phrase is preferable to “sexual orientation” in this context because the latter phrase implies stability and contradicts the assumption underlying this article that sexual attraction, behavior, and identity may be fluid across life stages.

²In general, the literature positively describes integration to the sexual minority community, but participation in club subcultures within the community may have negative consequences for drug use especially among men (Kipke et al. 2007). Members of these subcultures resort to drugs to reduce anxiety about meeting new people and enhance sexual performance (Green 2003). Frequent visits to gay clubs may contribute to an increase in drug use by promoting internalization of drug-permissive attitudes and by increasing access to drugs (Parsons, Kelly, and Weiser 2007).

³In Wave 3, males, blacks, and those in lower grade levels in adolescent waves were more likely to be lost from the survey, and the sampling weights took these sources of attrition bias into account. More importantly, however, among the key variables in this study, presence of SSE and high frequencies of binge drinking and drug use in adolescence were significantly associated with a greater chance of dropping out of the survey. The present results may, therefore, underestimate mental health differences across people reporting different SSE patterns.

⁴Among the key variables, drug use in adolescence and young adulthood had the highest numbers of missing cases (195 and 308). Other variables had smaller numbers of missing cases ranging between 12 and 89.

⁵In Waves 1 and 2, 4.0 percent of females and 4.7 percent of males reported neither SSE nor opposite-sex experience. The percentages were smaller in Wave 3 (.4 percent females and .6 percent males). In each life stage, these people were combined with those who reported opposite-sex experience because of the present study's focus on the theoretical distinction between presence and absence of SSE. The strategy also helped maintain a sufficient number of respondents in the adolescence only SSE group and the adulthood only group without complicating classification.

⁶Breakdown frequencies for the 32 combinations of same-sex dating, attraction, and identities are available from the author upon request.

⁷For the adolescent mental health measures, the Wave 2 data were preferable to the Wave 1 data because presence of adolescent SSE was determined by reporting in Wave 1 or 2. Using the Wave 2 mental health data ensured that any responses to minority stressors were measured after the SSE, rather than before the experience. However, exploratory analysis using Wave 1 as the default adolescent mental health data produced results similar to the primary analysis presented in this article.

⁸Results based on dichotomized outcomes are available from the author upon request.

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