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EMPIRICAL RESEARCH

Sexual Orientation, Parental Support, and Health During the Transition to Young Adulthood

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Abstract Some recent studies suggest that sexual minorities may have worse health-related outcomes during adolescence because they report lower levels of family connectedness, a key protective resource. Using data from wave 3 of the National Longitudinal Study of Adolescent Health ($n = 11{,}153$; 50.6% female; mean age = 21.8 years), this study extends prior research on adolescents to young adults. We examine whether lesbian, gay, and bisexual (LGB) young adults report lower levels of parental support than their heterosexual peers and whether differences in parental support help explain why LGB young adults tend to have worse health-related outcomes. We find that lesbian and bisexual women report lower levels of parental support than heterosexual women and that gay men report lower levels of parental support than bisexual and heterosexual men. Compared to heterosexual women, lesbian and bisexual women have higher odds of suicidal thoughts and recent drug use; bisexual women also have higher odds of elevated depressive symptomatology and heavy drinking. Gay men have higher odds of suicidal thoughts than heterosexual men. With the exception of heavy drinking, parental support either partially or fully mediates each of the observed associations. Even though the transition from adolescence to young adulthood is characterized by increased independence from parents, parental support remains an important correlate of health-related outcomes during this stage of life. Sexual minorities report lower levels of parental support during young adulthood, which helps explain why they have worse health-related outcomes. Interventions designed to strengthen relationships between LGB young adults and their parents could lead to a reduction in health disparities related to sexual orientation.

Keywords Sexual orientation · Parental support · Mental health · Health behavior

Introduction

During adolescence and young adulthood, sexual minorities report more symptoms of depression (D'Augelli 2002; Fergusson et al. 1999), more suicide attempts (Russell and Joyner 2001; Silenzio et al. 2007), and more drug and alcohol use (Rosario et al. 1997; Russell et al. 2002) than their heterosexual peers, yet not all sexual minority youth are at increased risk of negative health outcomes (Savin-Williams 2001). Thus, it is important to identify which youths are at risk and why (Savin-Williams 2001). Some recent studies suggest that sexual minorities may have worse health-related outcomes during adolescence because they report lower levels of family connectedness, a key protective resource (Eisenberg and Resnick 2006; Ueno 2005). The current study extends prior research on adolescents to young adults. Using data from a nationally representative sample, we consider whether parental support continues to be an important factor underlying the association between sexual orientation and health during the transition from adolescence to young adulthood, a time of increased independence from parents (Arnett 2000).

The Transition to Young Adulthood

We focus on the transition to young adulthood for several reasons. First, this is the developmental stage in which

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disclosure of sexual identity—to self and others—is most likely to occur. Research on sexual minorities in their early 20s suggests that self-disclosure most often occurs just before high school graduation, with disclosure to others following soon after the completion of secondary school (Savin-Williams and Diamond 2000). Second, this is the period in the life course when most people establish patterns of behavior that have lasting consequences for health and well-being (Arnett 2000). In order to improve long-term health trajectories among lesbian, gay, and bisexual (LGB) young adults, it is important to identify potentially modifiable factors, such as relationships with parents, that contribute to increased risk of depression, suicide, and substance use during this critical developmental transition.

Parental Support and Health

The link between social support and health is well-established (House et al. 1988). Individuals who report higher levels of support have better mental and physical health than those who report lower levels of support (Moak and Agrawal 2009). Evidence suggests that parental support is a particularly important source of support for young people. Among adolescents, parental support is associated with better psychological well-being (Helsen et al. 2000) and lower levels of substance use (Wills et al. 2004). Although young adults tend to be less financially and emotionally dependent on their parents than adolescents (Arnett 2000), research suggests that parents remain a key source of social support during the transition to adulthood. For example, studies of college students have demonstrated a positive association between parental support and psychological well-being (Holahan et al. 1994; Sheets and Mohr 2009). Thus, there is some evidence that relationships with parents continue to be an important correlate of health-related outcomes during young adulthood.

Sexual Orientation and Parental Support

Most previous research on sexual orientation and parental support has examined the effect of disclosure of sexual orientation on the parent–child relationship (for a review, see Russell et al. 2001). In the past decade, though, studies have begun to compare levels of family connectedness among sexual minority and heterosexual adolescents. In general, these studies find that sexual minorities report lower levels of parental support (Eisenberg and Resnick 2006; Russell et al. 2001; Saewyc et al. 2009; Ueno 2005). Since this is the first study to examine the association between sexual orientation and perceptions of parental support during young adulthood, it is currently unknown whether LGB young adults perceive lower levels of support from parents than heterosexual young adults.

Sexual Orientation, Parental Support, and Health

In addition to examining the association between sexual orientation and parental support, two previous studies also considered the extent to which differences in parental support account for worse health-related outcomes among sexual minority adolescents. Using data from waves 1 and 2 of the National Longitudinal Study of Adolescent Health (Add Health), Ueno (2005) found that problems with parents and peers helped explain why sexual minorities reported higher levels of psychological distress than other adolescents. In another study, which analyzed data from the 2004 Minnesota Student Survey of 9th and 12th grade students, Eisenberg and Resnick (2006) found that differences in family connectedness, other adult caring, and school safety partially mediated the association between sexual orientation and suicide behaviors. Of the four protective factors examined in this study, family connectedness had the strongest association with suicide behaviors. The results of these studies suggest that differences in family relationships are responsible, in part, for the observed health disparities between sexual minority and heterosexual adolescents.

Because they do not include a comparison group, studies of sexual minority-only samples cannot explore parental support as a potential mechanism underlying the association between sexual orientation and health. Despite this limitation, these studies provide evidence for the importance of relationships with parents for health-related outcomes in the LGB population. For example, Homma and Saewyc (2007) found that perceptions of family caring were associated with lower levels of emotional distress among Asian-American LGB high school students in Minnesota. In addition, Ryan et al. (2009) found that LGB young adults who recalled high levels of parental rejection during adolescence were more likely to report attempted suicide, high levels of depressive symptoms, illegal drug use, and unprotected sex, compared to LGB young adults who recalled no or low levels of parental rejection during adolescence.

Study Hypotheses

The current study considers whether sexual orientation is associated with perceptions of parental support during young adulthood and whether differences in parental support help explain why LGB young adults tend to have worse health-related outcomes than their heterosexual peers. Although we are not aware of any previous studies that have examined the association between sexual orientation and parental support during young adulthood, several studies have found that sexual minority adolescents report lower

levels of family connectedness than other adolescents (Eisenberg and Resnick 2006; Russell et al. 2001; Saewyc et al. 2009; Ueno 2005). Drawing on this research, our first hypothesis is that LGB young adults will report lower levels of parental support than heterosexual young adults. Next, given the large body of evidence indicating worse health outcomes among sexual minority youth (e.g., D'Augelli 2002; Rosario et al. 1997; Silenzio et al. 2007), we expect to find that LGB young adults will report more symptoms of depression, more suicidal thoughts, more heavy drinking, and more drug use than heterosexual young adults. Third, based on previous research, which indicates that parental support is associated with the health and well-being of both adolescents (Helsen et al. 2000; Wills et al. 2004) and young adults (Holahan et al. 1994), we hypothesize that parental support will be inversely associated with negative health-related outcomes. Finally, we expect to find that parental support will partially mediate associations between sexual orientation and health-related outcomes. This is based on previous work, which finds that sexual minorities who report less supportive family relationships during adolescence have worse health-related outcomes during adolescence (Homma and Saewyc 2007) and young adulthood (Ryan et al. 2009).

By identifying important within-group differences in the LGB population, empirical studies have established that sexual minority youth do not constitute a monolithic group (Savin-Williams 2001). For example, previous research on sexual orientation and parental support during adolescence finds that sexual minority girls report worse relationships with parents than all other groups, including sexual minority boys and heterosexual girls and boys (Eisenberg and Resnick 2006; Russell et al. 2001; Saewyc et al. 2009). In addition, there is evidence of sex differences in health-related outcomes among sexual minorities (Saewyc et al. 1998). For these reasons, we examine women and men separately. We also distinguish between respondents who report that they are gay or lesbian and those who report that they are bisexual. There is some suggestion in the literature that those who self-identify as bisexual have worse health outcomes than those who identify themselves as gay or lesbian (see Saewyc et al. 2009).

Methods

Data

Add Health is a comprehensive, school-based study of adolescents enrolled in grades 7 through 12 during the 1994–1995 school year. The Add Health sample is representative of schools in the US with respect to ethnic composition, urbanicity, school size and type, and region of the country. At wave 1, 20,745 respondents completed face-to-face in-home interviews. Respondents were re-interviewed in 1996 for wave 2 of the study and again in 2001–2002 for wave 3. Respondents were ages 18–26 at wave 3 ($n = 15{,}197$). Audio computer-assisted self-interviewing (A-CASI) technology was used to collect data on sensitive topics. All study participants provided written informed consent.

Sample

The current study analyzes data from the wave 3 in-home interviews. Wave 1 data are used to construct some control variables, as described below. In order to control for the oversampling of some groups in the Add Health study, we exclude respondents without valid sampling weights (new $n = 14{,}322$). We also exclude respondents who did not provide a valid response to the sexual orientation question (new $n = 14{,}189$) and those who reported no contact with parents or parent-like figures (new $n = 13{,}529$). Lastly, we exclude respondents who were married at wave 3 (final $n = 11{,}153$), as the importance of parental support may be different for those young adults who have entered into marriage (Roberts and Bengtson 1993). Missing values on all remaining measures are estimated using a regression-based imputation procedure (Impute) in Stata (StataCorp 2007). The final analytic sample includes 73.4% of the full wave 3 sample.

Measures

Self-Reported Sexual Orientation

During the audio computer assisted self-interview (ACASI) portion of the wave 3 interview, respondents were asked the following: "Please choose the description that best fits how you think about yourself." Response options included "100% heterosexual," "mostly heterosexual," "bisexual," "mostly homosexual," or "100% homosexual." Those who reported being "100% heterosexual" or "mostly heterosexual" are classified as heterosexual in our analyses; those who reported being "bisexual" are classified as bisexual; and those who reported being "100% homosexual" or "mostly homosexual" are classified as gay or lesbian.

Parental Support

At wave 3, respondents were asked about relationships with current residential parents and, if they no longer lived with a parent, about current relationships with previous residential parents. The residential and previous residential parental support questions refer to biological, adoptive, and

step-parents, as well as parent-like figures. Our measure of parental support, which has been used in previous research with the Add Health data (Needham 2008), combines respondents' reports of maternal and paternal emotional support during young adulthood; the measure does not include reports of instrumental support. Wave 3 maternal support is the sum of responses to three items, including how close respondents feel to their mother (1 = not close at all—5 = extremely close), whether their mother is warm and loving (1 = strongly disagree—5 = strongly agree), and whether they enjoy doing things with their mother (1 = strongly disagree—5 = strongly agree). The same items used to assess maternal support at wave 3 are used to assess paternal support. The alpha reliability is .83 for the current residential mother support scale, .74 for the current residential father support scale, .86 for the previous residential mother support scale, and .89 for the previous residential father support scale.

If information about maternal support is missing, the measure of paternal support is used to indicate parental support. If information about paternal support is not available, the maternal support sum is used to indicate parental support. In cases where both maternal and paternal support measures are available, the arithmetic mean of these items is used to indicate parental support. This method of assessing support leads to a substantial reduction in the amount of missing data associated with the parent-specific measures. Although combined measures of parental support have been used in previous research with the Add Health data (Cornwell 2003; Harker 2001; Needham 2008), some research suggests that there are differential effects of maternal and paternal support on adolescent outcomes (e.g., Stolz et al. 2005). In addition to using the combined measure of support, this study also examines support from mothers and fathers separately to determine whether maternal and paternal support are differentially associated with health-related outcomes during young adulthood.

Symptoms of Depression and Suicidal Thoughts

At wave 3, the Add Health study included nine items from the Center for Epidemiological Studies-Depression Scale (CES-D), a widely used and well-validated screener for recent depression in community samples (Radloff 1977). Scores on the 9-item version range from 0 to 27; Crohbach's α for the scale is .80. For this study, we use a dichotomous measure of depressive symptoms that has been used in previous research with the Add Health data; this measure is intended to identify respondents who are at risk for major depression (Primack et al. 2009). Female respondents with a CES-D score greater than or equal to 11 are assigned a score of 1 on the depression measure and 0 otherwise. For male respondents, we use a cutoff score of 10 to indicate "high" depressive symptoms. The second measure of mental health used in this study is suicidal thoughts; respondents were asked whether they had seriously thought about committing suicide in the last 12 months (1 = yes; 0 = no).

Heavy Drinking and Drug Use

Respondents were asked how frequently over the past 12 months they drank five or more drinks in a row. Responses ranged from never to every day. Respondents who reported heavy drinking 1–2 times per week or more are assigned a score of 1 on the heavy drinking variable; all others are assigned a score of 0. Regarding drug use, respondents were asked whether they had used marijuana and/or any of the following substances over the past 30 days: cocaine, crystal meth, LSD, PCP, ecstasy, mushrooms, inhalants, ice, heroin, or prescription medications not prescribed to the participant. We use responses to these questions to construct dichotomous measures of marijuana use (1 = any marijuana use in past month; 0 = no marijuana use in past month) and hard drug use (1 = any hard drug use in past month; 0 = no hard drug use in past month).

Control Variables

We use data from the wave 1 in-home interviews to construct controls for gender (1 = male; 0 = female), race/ethnicity (1 = non-white; 0 = white), and socioeconomic status of the family of origin, as indicated by parental education for the respondent's most highly educated residential parent (a dummy variable for having at least one parent with more than high school education). We use data from the wave 3 in-home interview to construct controls for age (calculated as the difference between the date of the wave 3 interview and the participant's reported birth date) and whether respondents had moved out of the parental home (1 = lives in parental home; 0 = does not live in parental home).

Plan of Analysis

The first step in this analysis is to determine whether LGB young adults report lower levels of parental support and worse health-related outcomes than their heterosexual peers. Using one-way ANOVA with Bonferroni posthoc tests, we compare mean levels of parental support by sexual orientation. We use the same procedure to examine group differences in the proportion of respondents reporting high depressive symptoms, suicidal thoughts, frequent heavy drinking, and recent drug use. The next step in this analysis

is to examine parental support as a mediator of the association between sexual orientation and young adult health. To accomplish this, we first regress each health outcome on sexual orientation, along with the control variables. We then add the parental support variable to each baseline model and calculate the percent change in the coefficient for sexual orientation. This allows us to estimate how much of the observed association between sexual orientation and each young adult health outcome may be attributed to group differences in parental support. All analyses are stratified by gender. We use the Survey Logit procedure in Stata, which corrects for design effects and takes into account the unequal probability of selection in the Add Health sample (Chantala 2006).

Results

Descriptive Statistics

Tables 1 and 2 present unweighted descriptive statistics for all study variables by sexual orientation for female (Table 1) and male (Table 2) respondents. As shown in Table 1, bisexual women are significantly less likely than lesbian or heterosexual women to be non-white. Among female respondents, there are no significant group differences in parental education, living in the parental home at wave 3, or mean age. Lesbian and bisexual women report lower levels of parental support than heterosexual women. Furthermore, lesbian and bisexual women report significantly worse health-related outcomes than their heterosexual peers, including elevated symptoms of depression, suicidal thoughts, heavy drinking, marijuana use, and hard drug use. Suicidal thoughts are especially divergent, with nearly one-fifth of lesbian and bisexual women reporting suicidal thoughts compared to only 6.3% of heterosexual women. There are no significant differences in parental support or health-related outcomes between lesbian and bisexual women.

As shown in Table 2, there are no significant group differences in race/ethnicity or parental education among male respondents. Heterosexual men are significantly more likely than gay or bisexual men to live in the parental home at wave 3, and gay men are significantly older than bisexual or heterosexual men. Gay men report lower levels of parental support than bisexual and heterosexual men, yet there is little evidence that health-related outcomes differ by sexual orientation among men. The only exception is suicidal thoughts, which are more common among gay and bisexual men than their heterosexual peers.

Parental Support and Health Outcomes Among Young Women

We turn now to the results of a series of logistic regression models estimated separately for each health-related outcome. All models include controls for race/ethnicity, parental education, age, and living in the parental home at wave 3. Model 1 includes only the main effect for sexual orientation, while the addition of parental support in Model 2 demonstrates the extent to which the association between sexual orientation and each health-related outcome is mediated by parental support. Since the maternal support, paternal support, and combined parental support models produced similar results, we only present the results for the combined measure of support. The results for the separate maternal and paternal support models are available from the authors upon request.

Table 1 Descriptive statistics for all study variables by sexual orientation among females

Variable	Sexual orientation			
	Lesbian (L)	Bisexual (B)	Heterosexual (H)	Contrasts
Non-white race/ethnicity	43.0	32.9	45.7	H > L, B
Parental education (more than high school)	26.3	38.8	38.6	
Living in parental home	33.3	37.5	44.8	
Mean age	21.8 (1.75)	21.5 (1.67)	21.6 (1.73)	
Mean parental support score	12.6 (1.76)	12.4 (2.19)	13.4 (1.69)	H > L, B
High depression	15.2	19.7	11.1	L, B > H
Suicidal thoughts	20.8	17.7	6.3	L, B > H
Heavy drinking	12.5	15.1	8.1	L, B > H
Marijuana use	47.2	42.7	18.1	L, B > H
Hard drug use	20.8	19.7	5.0	L, B > H
N	72	152	5416	

Note: Contrasts indicate significant differences ($p < .05$) in unweighted means/proportions by sexual orientation based on one-way ANOVA. Standard deviations are in parentheses

Table 2 Descriptive statistics for all study variables by sexual orientation among males

Variable	Sexual orientation			
	Gay (G)	Bisexual (B)	Heterosexual (H)	Contrasts
Non-white race/ethnicity	46.2	45.0	44.7	
Parental education (more than high school)	38.0	40.0	39.3	
Living in parental home	34.7	32.5	52.0	H > G, B
Mean age	22.2 (1.60)	21.3 (1.59)	21.8 (1.73)	G > B, H
Mean parental support score	12.9 (1.82)	13.1 (1.56)	13.4 (1.58)	B, H > G
High depression	14.9	17.5	8.9	
Suicidal thoughts	16.5	12.5	5.7	G, B > H
Heavy drinking	15.0	15.0	20.7	
Marijuana use	26.7	40.0	28.3	
Hard drug use	11.7	15.0	8.9	
N	121	40	5352	

Note: Contrasts indicate significant differences ($p < .05$) in unweighted means/proportions by sexual orientation based on one-way ANOVA. Standard deviations are in parentheses

As shown in Table 3, bisexual women have 86% higher odds of reporting elevated depressive symptomatology compared to heterosexual women. The association between bisexual identity and high depression appears to be fully mediated by parental support. Using OLS regression to examine the continuous measure of depressive symptoms (results not shown), we find that bisexual women have higher levels of depressive symptoms than heterosexual women, and the association between sexual orientation and depressive symptoms is partially mediated by parental support. Regarding suicidal thoughts, lesbian and bisexual women have over twice the odds of reporting suicidal thoughts compared to heterosexual women; this association is partially mediated by parental support. Bisexual women have greater odds of frequent heavy drinking relative to heterosexual women; yet there is no evidence that this association is explained by parental support. Finally, lesbian and bisexual women have dramatically higher odds of both marijuana and hard drug use compared to heterosexual women; these associations are somewhat attenuated by the inclusion of parental support.

Parental Support and Health Outcomes Among Young Men

In contrast to the findings for young women, there are few sexual orientation differences in health outcomes among young men in our study. As shown in Table 4, gay and bisexual men do not differ significantly from heterosexual men with regard to elevated depressive symptoms, though the risk of suicidal thoughts among gay men is significantly higher than among heterosexual men. Parental support partially mediates the association between gay identity and suicidal thoughts. Using OLS regression (results not shown), we find that gay men have higher levels of depressive symptoms than heterosexual men, and this association is partially mediated by parental support. There are no sexual orientation differences among men on any of the substance use outcomes.

Discussion

This study examines associations between sexual orientation, parental support, and health-related outcomes during the transition to young adulthood—the developmental stage in which disclosure of sexual identity is most likely to occur (Savin-Williams and Diamond, 2000), as well as the period in the life course in which most people establish patterns of behavior that have lasting consequences for health and well-being (Arnett 2000). Building on previous research, which suggests that sexual minorities have worse health outcomes during adolescence because they report lower levels of family connectedness (Eisenberg and Resnick 2006; Ueno 2005), we consider whether differences in parental support help explain why LGB young adults tend to have worse health-related outcomes than their heterosexual peers. The current study contributes to the literature on sexual minority youth by identifying lack of support from parent(s) as one factor that increases the risk of some negative health outcomes among lesbian, gay, and bisexual young adults.

Consistent with our first hypothesis, we find that lesbian and bisexual women report lower levels of parental support than heterosexual women and that gay men report lower levels of parental support than heterosexual men. Contrary to the first hypothesis, however, bisexual men do not report lower levels of parental support than their heterosexual

Table 3 Multivariate logistic regression models predicting health outcomes among females ($n = 5640$)

Variable	High depression		Suicidal thoughts		Heavy drinking		Marijuana use		Hard drug use	
	Model 1 OR (95% CI)	Model 2 OR (95% CI)	Model 1 OR (95% CI)	Model 2 OR (95% CI)	Model 1 OR (95% CI)	Model 2 OR (95% CI)	Model 1 OR (95% CI)	Model 2 OR (95% CI)	Model 1 OR (95% CI)	Model 2 OR (95% CI)
Lesbian	0.98	0.90	2.78***	2.63**	1.09	1.11	3.62***	3.44***	3.77***	3.59***
	.45–2.14	.41–1.97	1.31–5.89	1.23–5.61	.35–3.34	.37–3.33	1.92–6.82	1.79–6.59	1.84–7.70	1.74–7.41
Bisexual	1.86*	1.55	2.43***	2.21**	2.23**	2.27**	3.31***	3.02***	4.68***	4.36***
	1.04–3.33	.81–2.97	1.34–4.41	1.17–4.18	1.19–4.15	1.20–4.30	2.04–5.37	1.86–4.90	2.55–8.61	2.34–8.11
Parental support		0.84***		0.90***		1.02		0.90***		0.91**
		.79–.89		.85–.96		.95–1.10		.86–.94		.86–.97

Note: Models include controls for race/ethnicity, parental education, living in parental home, and age

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 4 Multivariate logistic regression models predicting health outcomes among males ($n = 5513$)

Variable	High depression		Suicidal thoughts		Heavy drinking		Marijuana use		Hard drug use	
	Model 1 OR (95% CI)	Model 2 OR (95% CI)	Model 1 OR (95% CI)	Model 2 OR (95% CI)	Model 1 OR (95% CI)	Model 2 OR (95% CI)	Model 1 OR (95% CI)	Model 2 OR (95% CI)	Model 1 OR (95% CI)	Model 2 OR (95% CI)
Gay	1.05	1.00	3.02***	2.89***	0.87	0.86	0.80	0.77	1.90	1.83
	.45–2.44	.43–2.32	1.49–6.10	1.44–5.78	.51–1.51	.50–1.48	.49–1.29	.47–1.26	.91–3.98	.88–3.83
Bisexual	1.01	1.01	2.85	2.91	0.31	0.31	1.78	1.78	1.09	1.10
	.26–3.90	.26–3.87	.77–10.50	.74–11.39	.08–1.10	.08–1.09	.75–4.23	.76–4.17	.35–3.35	.35–3.41
Parental support		0.87***		0.88***		0.96		0.92***		0.90***
		.81–.94		.81–.94		.92–1.00		.88–.96		.85–.95

Note: Models include controls for race/ethnicity, parental education, living in parental home, and age

* $p < .05$, ** $p < .01$, *** $p < .001$

peers. While previous research has demonstrated that sexual minority adolescents report lower levels of family connectedness than other adolescents (Eisenberg and Resnick 2006; Russell et al. 2001; Saewyc et al. 2009; Ueno 2005), this is the first study to examine the association between sexual orientation and parental support during young adulthood.

Next, we find mixed support for the hypothesis that LGB young adults have worse health-related outcomes. The bivariate results indicate that lesbian and bisexual young women are more likely than their heterosexual peers to report high depressive symptoms, suicidal thoughts, heavy drinking, marijuana use, and hard drug use. With the exception of suicidal thoughts, which are more common among gay men and bisexual men compared to heterosexual men, the bivariate results suggest that health-related outcomes are similar among young men, regardless of sexual orientation. In general, the results of the multivariate analyses are consistent with the bivariate results. After controlling for sociodemographic factors, such as race/ethnicity and living in the parental home, we find that bisexual women (but not lesbian women) have higher odds of reporting elevated depressive symptomatology and heavy drinking compared to heterosexual women. Both lesbian and bisexual women have higher odds than heterosexual women of reporting all other negative health-related outcomes. The multivariate results also suggest that the odds of reporting suicidal thoughts are higher among gay men (but not bisexual men) compared to heterosexual men. There is no association between sexual orientation and any of the other health-related outcomes among young men.

We find substantial support for the hypothesis that parental support is inversely associated with negative health-related outcomes. With the exception of heavy drinking, higher levels of parental support are associated with lower odds of each negative health-related outcome among young women and men. A one-unit change in parental support is associated with a reduction in the odds of each health-related outcome that ranges from 8% (for marijuana use among young men) to 16% (for high depression among young women). Although the transition from adolescence to young adulthood is characterized by increasing independence from parents (Arnett 2000), the results of this study indicate that parental support remains an important protective resource during this stage of the life course.

Finally, we find some support for the hypothesis that differences in parental support help explain why LGB young adults have worse health-related outcomes than their heterosexual peers. Among young women, parental support fully mediates the association between bisexual identity and high depressive symptoms and partially mediates associations between sexual orientation and suicidal thoughts, marijuana use, and hard drug use. Among young men, parental support partially mediates the association between gay identity and suicidal thoughts, although it only explains a very small amount of the association. These results suggest that parental support is an important factor underlying the association between sexual orientation and negative health-related outcomes, particularly among young women.

Limitations and Directions for Future Research

The most important limitation of this study is that we cannot rule out the possibility that perceptions of parental support may be the result, rather than the cause, of poor mental health and substance use. Because this is a cross-sectional study, we are not able to determine whether parental support leads to change in health-related outcomes or vice versa. Previous research with the Add Health data suggests that there is a bi-directional association between symptoms of depression and parental support during the transition to adulthood (Needham 2008). While it would be preferable to examine our research questions longitudinally, the Add Health study does not include measures of self-reported sexual orientation at waves 1 or 2. Thus, we are limited to the use of cross-sectional data.

In addition, we only examine one source of support (i.e., support from parents). Previous research suggests that peer relationships are an important determinant of health and well-being during young adulthood (McLaughlin et al. 2002). Future research should consider whether perceptions of peer support differ between LGB and heterosexual young adults and, if so, whether differences in peer support contribute to worse health-related outcomes among sexual minorities. In addition, future research should consider the relative importance of peer versus parent support for the health of LGB young adults. If peer support is found to be as important (or more important) in determining the health of sexual minorities, then it may be possible to offset the negative impact of relatively low levels of parental support by strengthening relationships with peers. This type of research could be used to develop novel interventions to reduce health disparities related to sexual orientation.

Conclusions

Sexual minorities report lower levels of parental support during young adulthood, and this helps explain why they have worse health-related outcomes. Even though the transition to young adulthood is characterized by increasing independence from parents (Arnett 2000), parental support remains an important correlate of health-related

outcomes during this stage of the life course. In order to improve the health of LGB youth, clinicians, counselors, and others who work with young people must be aware of the critical role that parents continue to play in shaping the health of their children as they make the transition from adolescence to young adulthood.

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