JOURNAL OF WOMEN'S HEALTH
Volume 18, Number 12, 2009

DOI: 10.1089/jwh.2009.1488

Sexual Risk in "Mostly Heterosexual" Young Women: Influence of Social Support and Caregiver Mental Health

Heather L. Corliss, M.P.H., Ph.D.,[1,2] S. Bryn Austin, Sc.D.,[1,2,3]
Andrea L. Roberts, Ph.D.,[3] and Beth E. Molnar, Sc.D.[3]

Abstract

Background: Female youth who describe their sexual orientation as "mostly heterosexual," rather than exclusively heterosexual, display greater sexual risk, yet reasons for this greater risk are not understood. Research is needed to identify factors responsible for health disparities in this population comprising the majority of youth who report a minority sexual orientation.
Methods: We compared indicators of perceived social support, parental/caregiver mental health, and sexual risk (age at first sexual intercourse, lifetime history of a sexually transmitted infection (STI), lifetime number of sexual partners) among 33 young women describing themselves as mostly heterosexual and 337 indicating they were 100% heterosexual (aged 18–24 years) participating in an urban, multiethnic, community-based cohort study. Linear, logistic, and Cox proportional hazards regression were used to test whether social support and caregiver mental health explained greater sexual risk among mostly heterosexual compared with heterosexual participants.
Results: Compared with exclusively heterosexuals, mostly heterosexuals reported less social support from family ($p = 0.01$) and friends ($p = 0.02$) and were more likely to report primary male caregiver (though not primary female caregiver) histories of depression ($p < 0.0001$), treatment for depression ($p < 0.0001$), and problems with drug use ($p = 0.005$). Differences in perceived family social support and caregiver mental health and substance use partially mediated relationships between sexual orientation and sexual risk.
Conclusions: Compared with exclusively heterosexual female youth, mostly heterosexual female youth may have poorer relationships with their family and others in their social networks, and this may contribute to their elevated health risks. Additional research is needed to understand causal mechanisms responsible for sexual orientation disparities in sexual risk.

Introduction

Female youth who describe their sexual orientation as "mostly heterosexual" compared with exclusively (or 100%) heterosexual show evidence of greater health risks, including substance use,[1,2] eating disorder symptoms,[3] maltreatment, and sexual risk.[4–6] These youth who report some same sex attractions but do not identify as lesbian or bisexual are estimated to be 6%–10% of female youth.[4] Recent research supports the importance of examining experiences of mostly heterosexual young women separately from those of exclusively heterosexuals, lesbians, or bisexuals because of potential differences between these groups.[7,8]

Factors contributing to the greater likelihood that mostly heterosexual female youth will engage in risky sexual behaviors compared with their exclusively heterosexual peers are inadequately understood. A prior study we conducted found that mostly heterosexual young women participating in an urban, multiethnic cohort study reported a younger age at first sexual intercourse and first pregnancy, a greater number of lifetime sexual partners, and higher lifetime occurrence of a sexually transmitted disease (STD) than exclusively heterosexual young women.[4] This same study also found that greater risk of childhood sexual abuse reported by the mostly heterosexual female participants did not explain their higher sexual risk compared with the exclusively

[1]Division of Adolescent and Young Adult Medicine, Children's Hospital, Boston, Massachusetts.
[2]Department of Pediatrics, Harvard Medical School, Boston, Massachusetts.
[3]Department of Society, Human Development, and Health, Harvard School of Public Health, Boston, Massachusetts.

heterosexual females. These findings led us to undertake the current study using the same analytic sample derived from the Project on Human Development in Chicago Neighborhoods (PHDCN). In this current study, we test whether other factors associated with sexual risk mediate the relationship with sexual orientation.

The work of Bronfenbrenner[9] has led to the recognition that determinants of adolescent sexual behavior are more comprehensively understood by applying a socioecological perspective.[10] The socioecological model posits that individual sexual risk and sexual risk behaviors are influenced by contextual factors derived from multiple systems ranging from the level of the family to broader social contexts, such as neighborhoods and communities. The model emphasizes that reciprocal interactions between youth and their family members, intimate partners, and peers, in addition to influences from more distal societal factors, affect youths' sexual behaviors. Drawing from this model, it is plausible to hypothesize that there may be important differences in the lives of mostly heterosexual youth related to family and friendships that could contribute to their heightened sexual risk. Because of the societal stigma of homosexuality, youth who have same sex sexual attractions may experience additional family and peer stressors above and beyond the developmental challenges typical of adolescence.

We identified variables in PHDCN that might explain the greater sexual risk among mostly heterosexual females by reviewing prior youth literature on determinants of sexual risk. Studies have shown that adolescents who enjoy supportive relationships with family, friends, and other community members, such as teachers and coaches, are less likely to report engaging in risky sexual behaviors.[11–16] The mental health and substance abuse status of parents has also been associated with adolescent sexual risk behaviors.[17] Mechanisms positively linking parental mental health and substance use problems to adolescent risky sexual behavior are not fully understood. However, it is possible that parents with mental health and substance problems provide less supervision and involvement in their children's lives, which have been linked to adolescents' high-risk sexual behaviors.[18,19] Some evidence also suggests that adult supervision is positively associated with the quantity of youth assets, for example, having positive role models and good family communication.[20]

Very few studies have compared differences in the quality of relationships with family and friends among mostly heterosexual vs. exclusively heterosexual youth. One study found that mostly heterosexual female adolescents participating in a school-based health survey scored lower on indicators of family connectedness than did exclusively heterosexual female adolescents, but formal statistical differences between these two groups were not reported.[21] Some studies have compared sexual majority youth with sexual minority youth aggregated into one category comprising participants reporting any same sex sexual orientation and have found that youth classified as having a minority sexual orientation reported less connectedness to family, teachers, and other adults[22] and less attachment to parents and school.[23] However, these studies did not examine these factors separately among female youth who described themselves as mostly heterosexual.

The objectives of this study were twofold. The first was to compare indicators of social support and caregiver mental health and substance problems between mostly heterosexual and 100% heterosexual young women. The second objective was to examine if differences in these factors may explain, at least partly, the greater sexual risk among mostly heterosexual compared with exclusively heterosexual young women.

Materials and Methods

Participants

Data are from the PHDCN, a representative, multilevel, longitudinal cohort study of 6226 youth and their caregivers interviewed three times. We drew upon data collected by in-person interviews conducted with the youth participants in 2000–2002 (third interview, response rate 70%) from 410 females aged 18–24 years. The final analytic sample consisted of 337 female participants who described their sexual orientation as "100% heterosexual" and 33 female participants who described themselves as "mostly heterosexual." Other participants who reported a minority sexual orientation were excluded because of small sample sizes of these groups. Approximately 45% of the analytic sample identified as Latina, and 37% identified as non-Hispanic African American. The mean age of the participants when data for this analysis were collected was 21 years. Approximately 40% of respondents had parents/caregivers who had a high school diploma or less than a high school level of education. More information is available elsewhere about the analytic sample[4] and study methodology.[4,24] Institutional review board approval from Harvard School of Public Health was obtained for all procedures.

Measures

Sexual risk indicators. Three outcomes assessing participants' sexual risk were measured: age at first sexual intercourse, lifetime number of sexual partners, and lifetime occurrence of a sexually transmitted infection (STI). Respondents who indicated that they had ever had sexual intercourse were asked the question: How old were you when you first had sexual intercourse? These women were also asked about their lifetime number of sexual partners with the question: Since you first had sexual intercourse, has it always been with the same person, or have you had sex with more than one person? Respondents who indicated that they had had sexual intercourse with more than one person were then asked: How many different people have you had sex with? Because the lifetime number of sexual partners variable was positively skewed and because 95% of responses ranged between 0 and 10, we assigned responses that were $\geq$11 a value of 11 to minimize the effects of outliers (see reference 4 for more detail). Thus, the variable ranged from 0 to 11. Sexually active participants were also asked: Have you ever had an STD, for example, a venereal disease (VD), such as gonorrhea or the clap, syphilis, *Chlamydia* infection, genital warts, or genital herpes?

Sexual orientation. To assess sexual orientation, participants were asked: Which of the following best describes your feelings? Response options included 100% heterosexual (only attracted to persons of the opposite sex), mostly heterosexual (attracted to both, but mostly persons of the opposite sex), bisexual (pretty much equally attracted to both men and women), mostly homosexual (attracted to both, but mostly

persons of the same sex), 100% homosexual (gay/lesbian, only attracted to persons of the same sex), and not sure.

Social support. Self-perceived social support was measured using three subscales adapted from the Provision of Social Relations measure.[25] Subscales included support from family (six items), friends (nine items), and other nonparental support, such as from a teacher, coach, or aunt/uncle (four items). Examples of statements are: No matter what happens, I know that my family will always be there for me should I need them (family subscale); I feel very close to some of my friends (friends subscale); I have a teacher or coach who I can rely on (other support subscale). Participants were asked to report if their experience related to each question was very true, somewhat true, or not true. We calculated the mean score of items on each subscale; thus, the range of each subscale score was between 1 and 3, with lower values representing lower perceived social support.

Parental/primary caregiver mental health. Participants were asked to report on their primary male and female caregiver's histories of mental health and substance use problems. To assess primary male caregiver history of depression, respondents were asked: Since you were born did (man who raised you) ever have periods lasting 2 weeks or more when he was sad or depressed most of the time? Participants who indicated that their primary male caregiver had a history of depression were then asked the question: Did he ever get professional treatment for his depression? To assess primary male caregiver problems with alcohol use, participants were asked: Did (man who raised you) ever had a problem with drinking? Two questions were combined to assess primary male caregiver problems with drug use: (1) Did (man who raised you) ever abuse prescription drugs, such as Valium, sleeping pills, or diet pills? (2) Did he ever have a problem with illegal drugs? If participants responded Yes to either of these two questions, they were coded as having a primary male caregiver who had problems with drug use. Participants who indicated that their primary male caregiver had a history of problems with alcohol or drugs were followed up with the question: Did he ever get professional treatment for his drinking or drug use problem? Similar questions were also asked about the primary female caregiver or the woman who raised you, and the same coding scheme was applied.

Other covariates. Potential confounders included in statistical models were age at time of interview treated as a continuous variable, race/ethnicity (coded as Latina, non-Hispanic black, non-Hispanic white, or other), caregiver educational attainment (maximum of one or two caregivers coded as less than high school, high school diploma, some college, or bachelor's degree or higher), and neighborhood-concentrated poverty, which is a principal component score combining percent of households in poverty, percent unemployed, and percent on public assistance.

Data analysis

Bivariate differences by sexual orientation in means of age at first sexual intercourse and lifetime numbers of sexual partners and frequencies of ever having an STI were examined. Means of social support subscales and distributions of binary indicators of primary male and female caregiver mental health were also compared across sexual orientation; bivariate linear regression was used for the social support subscales, and logistic regression was used for caregiver mental health indicators. Multivariable Cox proportional hazards regression was used for modeling age at first sexual intercourse, logistic regression was used for lifetime history of an STI, and linear regression was used for lifetime number of sexual partners.

To examine whether perceived social support and caregiver mental health mediated associations between sexual orientation and sexual risk, we constructed a series of base and mediation models using the Baron and Kenny method.[26] Base models included sexual orientation (independent variable) and potential confounders previously mentioned. Mediation models included base model variables in addition to mediators identified as having either an association with any sexual risk outcome of $p < 0.20$ or that modified the sexual orientation parameter estimate by $\geq$10%. We chose these inclusion criteria for the mediation analyses because of the relatively small analytic sample size. All analyses adjusted for correlated design effects resulting from the multilevel sampling structure of families nested within neighborhoods. We also conducted multiple imputation of data missing on covariates and mediators. Five multiple imputation datasets were generated, and results were combined across these datasets using SAS Proc MI and MIAnalyze, version 9.1 (SAS Institute, Cary, NC). Missing data ranged from 0.54% (male caregiver depression) to 7.30% (nonparental support).

Results

As we previously reported,[4] mostly heterosexual females reported a younger mean age at first sexual intercourse (15.2 vs. 16.3 years, $p < 0.01$, among the 91% of mostly heterosexuals and 88% of exclusively heterosexuals who had experienced sexual intercourse) and a greater mean number of sexual partners (5.9 vs. 2.6, $p < 0.001$), and they were more likely to report a history of having an STI (43% vs. 15%) compared with exclusively heterosexual females.

In bivariate associations of sexual orientation with potential mediators (Table 1), mostly heterosexuals reported lower levels of family and friend social support and were more likely than exclusively heterosexuals to report primary male caregiver histories of and treatment for depression and problems with drugs. There were no statistically significant associations between sexual orientation and primary female caregiver mental health histories (all p values >0.05). After accounting for possible mediation resulting from social support and primary caregiver mental health experiences (Table 2), the hazard ratio (HR) for age at first intercourse comparing mostly heterosexuals to exclusively heterosexuals was reduced from 1.52 to 1.18 (61% change), the odds ratio (OR) for ever having an STI was reduced from 5.09 to 4.18 (12% change), and the parameter estimate for lifetime number of sexual partners was reduced from 3.42 to 2.82 (18% change). Of all factors examined, family social support resulted in the greatest attenuation of the association between sexual orientation and sexual risk (data not shown).

Discussion

Prior research has established that youth with minority sexual orientations disproportionately experience poorer

Table 1. Bivariate Associations between Sexual Orientation and Social Support and Primary Caregiver Mental Health among Young Women Aged 18–24 Years Participating in Project on Human Development in Chicago Neighborhoods Study, 2000–2002

Characteristic	*Mostly heterosexual* (n = *33*)	*Heterosexual* (n = *337*)	p *value*[a]
Social support, mean			
Family	1.47	1.65	0.01
Friends	1.49	1.64	0.02
Other nonparental	1.04	1.21	0.10
Primary female caregiver variables, %			
History of depression since respondent's birth	33.3	27.3	0.46
Ever received treatment for depression	6.1	7.4	0.77
Ever had problems with alcohol	12.1	5.6	0.14
Ever had problems with drugs	9.1	4.2	0.20
Ever received treatment for problems with alcohol or drugs	3.0	3.3	0.94
Primary male caregiver variables, %			
History of depression since respondent's birth	39.4	13.1	<0.0001
Ever received treatment for depression	24.2	2.4	<0.0001
Ever had problems with alcohol	36.4	23.0	0.09
Ever had problems with drugs	21.2	7.1	0.005
Ever received treatment for problems with alcohol or drugs	9.1	10.0	0.90

[a]Differences estimated by generalized estimating equations regression to adjust for sampling design effects.

health-related outcomes, including greater sexual risk. This study attempted to move beyond identifying these health disparities to understanding why disparities exist by exploring factors that may contribute to greater sexual risk among mostly heterosexual compared with exclusively heterosexual female youth. Consistent with prior literature that aggregated sexual minority youth into one group,[22,23] we found that mostly heterosexual females in the PHDCN cohort reported less perceived social support from their family and friends when compared to exclusively heterosexual females. We also found that mostly heterosexual participants were more likely to report histories of primary caregiver mental health and substance problems, specifically for male but not female primary caregivers. In addition, among all mediators examined in this study, perceived social support from family resulted in the largest attenuation in sexual orientation differences in sexual risk. However, other factors related to the family environment, such as experiences related to parental mental health and substance problems, explained some of the differences in sexual risk between the two groups.

The mediating factors examined in this study caused the greatest reduction of sexual orientation differences in sexual

Table 2. Results of Multivariable Regression Models Testing Social Support and Primary Caregiver Mental Health as Mediators of Associations between Sexual Orientation and Sexual Risk among Young Women Aged 18–24 Years Participating in Project on Human Development in Chicago Neighborhoods Study, 2000–2002[a]

	Model 1: Age at first sexual intercourse		*Model 2: Ever had an STI*[b]		*Model 3: Lifetime no. of sexual partners*	
	HR	*95% CI*	*OR*	*95% CI*	*β*	*95% CI*
Base model						
Mostly heterosexual orientation	1.52	1.01-2.29	5.09	2.18-11.9	3.24	2.17-4.31
Mediation model						
Mostly heterosexual orientation	1.18	0.73-1.88	4.18	1.62-10.8	2.82	1.72-3.93
Family social support	0.63	0.47-0.84	0.40	0.17-0.91	−0.56	−1.43-0.31
Nonparental adult social support	0.92	0.76-1.11	0.98	0.53-1.81	−0.29	−0.92-0.33
PFC history of depression since respondent's birth	0.97	0.75-1.25	1.52	0.67-3.44	0.18	−0.56-0.93
PFC ever received treatment for depression	1.29	0.77-2.16	1.74	0.46-6.49	0.96	−0.34-2.26
PFC ever had problems with alcohol	0.99	0.60-1.62	0.64	0.14-3.00	−1.35	−2.76-0.06
PFC ever received treatment for alcohol or drug problem	1.38	0.76-2.49	0.98	0.16-6.19	2.27	0.38-4.16
PMC ever received treatment for depression	1.32	0.72-2.41	1.24	0.27-5.74	0.68	−0.87-2.23
PMC ever had problem with drugs	1.56	1.02-2.40	2.03	0.71-5.77	1.89	0.67-3.10
PMC ever received treatment for alcohol or drug problem	1.00	0.67-1.51	2.58	0.86-7.74	0.13	−0.97-1.24

[a]All models adjust for sampling design effects and control for age, race/ethnicity, caregiver educational attainment, and neighborhood concentrated poverty.

[b]STI, sexually transmitted infection; HR, hazards ratio; OR, odds ratio; CI, confidence interval; *β*, linear regression parameter estimate; PFC, primary female caregiver; PMC, primary male caregiver.

risk for age at first sexual intercourse (61% reduction) compared with the other sexual risk indicators that were examined. Perceived social support and caregiver mental health and substance experiences appeared to have less influence on sexual orientation differences in lifetime history of having an STI and lifetime number of sexual partners (12% and 18% attenuation, respectively). This finding is consistent with other research suggesting that family and parent connectedness may have a greater impact on age of sexual initiation compared with other sexual risk indicators in female youth, such as whether they had ever been pregnant.[15] Additional research is needed to confirm the salience of family experiences in contributing to a younger age at sexual initiation among mostly heterosexual female youth.

Lower levels of perceived social support in general among mostly heterosexual females may signify lower levels of support specifically for sexual issues compared with exclusively heterosexual females. A recent study conducted with a college sample of 229 young women found that sexual minority participants were less likely than heterosexual participants to report discussing issues related to sexual behavior and sexual health with their parents and friends.[27] This study also found that sexual minority women rated the responses they received from parents and friends around sexual issues as less helpful than did the heterosexual women. Additional research is needed to determine if sexual orientation differences in support around sexual issues is related to greater sexual risk among mostly heterosexual female youth.

A number of study limitations are important to consider. The data are self-reported and, thus, may be subject to reporting or recall bias. Self-reported assessment of STI history may be especially problematic because some STIs are asymptomatic and symptoms common to STIs may be assumed to be STIs without confirmation by a healthcare provider. In addition, because the sample size is relatively small, we were unable to examine the experiences of other sexual orientation groups (e.g., bisexual or lesbian), and low power could have caused type 2 error. Causality cannot be inferred because of the simultaneous assessment of independent and dependent variables, which obscures temporal ordering. Finally, we were unable to assess other possibly important mediating factors of sexual risk because they were not measured. Nonetheless, this study provides an important contribution to the literature by revealing a potential link between family processes and disparities in sexual risk among mostly heterosexual vs. heterosexual female youth.

Conclusions

Our findings have important relevance for healthcare providers and other professionals serving adolescent and young adult women. Because the development of a person's sexual orientation is a process that frequently unfolds over time during adolescence and young adulthood, asking youth about their sexual attractions may be as relevant as asking them how they self-identify. Indeed, the majority of youth who report same sex attractions do not identify as lesbian, gay, or bisexual.[28] Understanding how youth perceive their sexual orientation and exploring their relationships with their family, friends, and other supportive adults, such as teachers and coaches, may help to identify health and adjustment issues needing additional attention.

The present study highlights the important role that families play in youths' sexual risk behaviors. A recent study of self-identified lesbian, gay, and bisexual young adults showed that family rejection of youths' minority sexual orientation was positively linked to poorer health outcomes, including riskier sexual behavior.[29] It is possible that youth who have same sex attractions but do not identify as lesbian, gay, or bisexual may also experience some family rejection that could lead them to report lower levels of perceived social support. Taken together, findings from our study and previous studies point to the need for further research aimed at increasing understanding of family-level mechanisms contributing to health disparities in youth who report same sex attractions, regardless of how they identify their sexual orientation.

Acknowledgments

This study was funded by the Leadership Education in Adolescent Health Project, Maternal and Child Health Bureau, Health Resources and Services Administration (T71-MC00009-17) and the Aerosmith Fund. The Project on Human Development in Chicago Neighborhoods (PHDCN) was funded by the National Institute of Mental Health, National Institute of Justice, and the John D. and Catherine T. MacArthur Foundation. We thank Sarah Wylie for her contribution to this article, and we also thank the participants of PHDCN. We acknowledge the contributions of the scientific directors of PHDCN, Jeanne Brooks-Gunn, Felton Earls, Stephen Raudenbush, and Robert Sampson.

Disclosure Statement

The authors have no conflicts of interest to report.

References

1. Austin SB, Ziyadeh N, Fisher LB, Kahn JA, Colditz GA, Frazier AL. Sexual orientation and tobacco use in a cohort study of U.S. adolescent girls and boys. Arch Pediatr Adolesc Med 2004;158:317–322.
2. Corliss HL, Rosario M, Wypij D, Fisher LB, Austin SB. Sexual orientation disparities in longitudinal alcohol use patterns among adolescents: Findings from the Growing Up Today Study. Arch Pediatr Adolesc Med 2008;162:1071–1078.
3. Austin SB, Ziyadeh N, Kahn JA, Camargo CA Jr, Colditz GA, Field AE. Sexual orientation, weight concerns, and disordered eating behaviors in adolescent girls and boys. J Am Acad Child Adolesc Psychiatry 2004;43:1115–1123.
4. Austin SB, Roberts AL, Corliss HL, Molnar BE. Sexual violence victimization history and sexual risk indicators in a community-based urban cohort of "mostly heterosexual" and heterosexual young women. Am J Public Health 2008; 98:1015–1020.
5. Saewyc E, Skay C, Richens K, Reis E, Poon C, Murphy A. Sexual orientation, sexual abuse, and HIV-risk behaviors among adolescents in the Pacific Northwest. Am J Public Health 2006;96:1104–1110.
6. Saewyc EM, Skay CL, Pettingell SL, et al. Hazards of stigma: The sexual and physical abuse of gay, lesbian, and bisexual adolescents in the United States and Canada. Special Issue: LGBTQ Youth in Child Welfare. Child Welfare J 2006;85: 195–214.

7. Austin SB, Conron K, Patel A, Freedner N. Making sense of sexual orientation measures: Findings from a cognitive processing study with adolescents on health survey questions. J LGBT Health Res 2007;3:55–65.
8. Thompson EM, Morgan EM. "Mostly straight" young women: Variations in sexual behavior and identity development. Dev Psychol 2008;44:15–21.
9. Bronfenbrenner U. Toward an experimental ecology of human development. Am Psychol 1977;32:513–531.
10. DiClemente RJ, Salazar LF, Crosby RA, Rosenthal SL. Prevention and control of sexually transmitted infections among adolescents: The importance of a socioecological perspective—A commentary. Public Health 2005;119:825–836.
11. Buhi ER, Goodson P. Predictors of adolescent sexual behavior and intention: A theory-guided systematic review. J Adolesc Health 2007;40:4–21.
12. Henrich CC, Brookmeyer KA, Shrier LA, Shahar G. Supportive relationships and sexual risk behavior in adolescence: An ecological-transactional approach. J Pediatr Psychol 2006;31:286–297.
13. Majumdar D. Social support and risky sexual behavior among adolescents: The protective role of parents and best friends. J Appl Sociol 2006;23:28–43.
14. Mazzaferro KE, Murray PJ, Ness RB, Bass DC, Tyus N, Cook RL. Depression, stress, and social support as predictors of high-risk sexual behaviors and STIs in young women. J Adolesc Health 2006;39:601–603.
15. Resnick MD, Bearman PS, Blum RW, et al. Protecting adolescents from harm. Findings from the National Longitudinal Study on Adolescent Health. JAMA 1997;278:823–832.
16. St. Lawrence JS, Brasfield TL. Social support as a factor in African-American adolescents' sexual risk behavior. J Adolesc Res 1994;9:292–310.
17. Lerand SJ, Ireland M, Blum RW. Individual and environmental impacts on sexual health of Caribbean youth. Sci World J 2006;6:707–717.
18. Pando JR, Canino G, Ramirez R, Chavez LM, Martinez-Taboas A. Prevalence and factors associated to sexual behavior in Puerto Rican adolescents. PR Health Sci J 2007; 26:355–366.
19. Vélez-Pastrana MC, Gonzádez-Rodríguez RA, Borges-Hernández A. Family functioning and early onset of sexual intercourse in Latino adolescents. Adolescence 2005;40:777–791.
20. Harris L, Oman RF, Vesely SK, et al. Associations between youth assets and sexual activity: Does adult supervision play a role? Child Care Health Dev 2007;33:448–454.
21. Saewyc EM, Homma Y, Skay CL, Bearinger LH, Resnick MD, Reis E. Protective factors in the lives of bisexual adolescents in North America. Am J Public Health 2009;99:110–117.
22. Eisenberg ME, Resnick MD. Suicidality among gay, lesbian and bisexual youth: The role of protective factors. J Adolesc Health 2006;39:662–668.
23. Ueno K. Sexual orientation and psychological distress in adolescence: Examining interpersonal stressors and social support processes. Soc Psychol Q 2005;68:258–277.
24. Earls F, Buka SL. Project on Human Development in Chicago Neighborhoods. Washington, DC: National Institute of Justice, 1997.
25. Turner R, Frankel B, Levin D. Social support: Conceptualization, measurement, and implications for mental health. Res Community Ment Health 1983;3:67–111.
26. Baron RM, Kenny DA. The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. J Pers Soc Psychol 1986;51:1173–1182.
27. Friedman CK, Morgan EM. Comparing sexual-minority and heterosexual young women's friends and parents as sources of support for sexual issues. J Youth Adolescence 2009;38:920–936.
28. Savin-Williams RC, Ream GL. Prevalence and stability of sexual orientation components during adolescence and young adulthood. Arch Sex Behav 2007;36:385–394.
29. Ryan C, Huebner D, Diaz RM, Sanchez J. Family rejection as a predictor of negative health outcomes in white and Latino lesbian, gay, and bisexual young adults. Pediatrics 2009;123: 346–352.

Address correspondence to:
Heather L. Corliss, M.P.H., Ph.D.
Division of Adolescent/Young Adult Medicine
Children's Hospital Boston
300 Longwood Avenue
Boston, MA 02115

E-mail: heather.corliss@childrens.harvard.edu