Demographic and Health Characteristics of Young Adult Sexual Minorities in the United States

Kelly L. Strutz, MPH; Amy H. Herring, ScD; Carolyn Tucker Halpern, PhD
Carolina Population Center and Gillings School of Global Public Health, The University of North Carolina at Chapel Hill, Chapel Hill, NC, USA

Background

Sexual minorities, including individuals identifying as lesbian, gay, or bisexual and those engaging in same-sex attractions or sexual partnerships, are an understudied population with respect to demographic research and health inequalities in the United States (U.S.). Concerned about the paucity of demographic information on this population and its relation to disparities in health status and health care, the Institute of Medicine of the National Academies developed a research agenda calling for greater understanding of demographic and social influences on sexual minority health (Institute of Medicine, 2011). The proposed recommendations were informed by several theoretical frameworks including the minority stress model, which posits that stigma and discrimination related to sexual minority status lead to chronic stress and mental health problems (Meyer, 2003), and the life course framework, which acknowledges the influences of age cohort and historical context on populations (Elder, 1998).

Much of the existing knowledge on the demographics of sexual minorities in the U.S. comes from the Census Bureau decennial census and American Community Survey (e.g., Gates & Ost, 2004). While these sources provide information on partnered same-sex couples residing in the same household, they are unable to recognize single or non-cohabiting sexual minorities. Additional information has come from population surveys including the National Health and Social Life Survey and the General Social Survey (Black, Gates, Sanders, & Taylor 2000; Gates, 2010), but these data sources have been limited in the measures collected. Herek and colleagues (2010) examined a variety of characteristics in a small subsample of participants self-identifying as lesbian, gay, or bisexual in a larger probability sample of young adults, and Chandra, Mosher, and Copen (2011) provided national estimates on sexual behavior, attraction, and identity using the National Survey of Family Growth. However, neither study included information on health status or health care indicators. Given documentation of health disparities during adolescence (Coker, Austin, & Schuster, 2010; Lock & Steiner, 1999), it is important to examine health status and health care access of sexual minorities during young adulthood in a national sample.

The purpose of the current study is to describe a wide range of demographic and health characteristics of sexual minorities in comparison with those of the majority population in a nationally representative sample of young adults in the U.S.

Data and Methods

Data Source and Analytic Sample: Data for this study came from the National Longitudinal Study of Adolescent Health (Add Health), a nationally representative sample of U.S. adolescents in grades 7-12 in the 1994-1995 school year. Four waves of data collection have been completed thus far; the most recent occurred in 2008 with the respondents aged 24-32 years. Further details on the Add Health sampling procedures and study design are described elsewhere (Harris et al., 2009). The majority of the measures used in the present study came from the Wave IV in-home interview, but measures of the adolescent backgrounds of the respondents came from earlier waves. Our analytic sample consisted of respondents with valid sampling weights participating in the Wave I and Wave IV in-home interviews. Respondents were identified as sexual minorities if they endorsed any of three indicators at Wave IV: same-sex attraction, same-sex romantic or sexual partners, or non-exclusively heterosexual identity. Respondents endorsing none of the three indicators were classified as belonging to the heterosexual

majority. Respondents were excluded from the sample if they were missing data on all indicators, or if they were missing data on any indicator and had not endorsed sexual minority status on indicators for which they had provided valid responses. The total sample size was 14,594 (6,828 men and 7,766 women).

Measures: Demographic characteristics examined were race/ethnicity (non-Hispanic white, non-Hispanic black, Hispanic/Latino, non-Hispanic other); current age (24-27, 28-29, 30+); current educational attainment (some or completed high school or GED, some college, college graduate); parent education during respondent's adolescence (less than high school, completed high school diploma or GED, some college, college graduate); family structure during respondent's adolescence (two biological parents, other two-parent, single mom, other); current region of residence (West, Midwest, South, Northeast); current urbanicity/rurality (urban, suburban, rural); current religious denomination (Protestant or other Christian, Catholic, none/atheist/agnostic, other); index of current religiosity including measures of attendance and importance (1-5, where 1=lowest and 5=highest); any military service (yes, no); any household receipt of public assistance prior to age 18 (yes, no); any receipt of public assistance since the last interview (yes, no); any additional financial hardship (inability to pay home or utility bill, eviction or shut off service, or food insecurity) in the past 12 months (yes, no); current homeownership (yes, no); current identification on ladder of social status (1-10, where 1=lowest and 10=highest); numbers of same-sex (0, 1, 2+) and opposite-sex romantic partners (0-1, 2-5, 6+) before age 18; lifetime total numbers of same-sex (0, 1, 2-3, 4+) and other-sex (0-1, 2-5, 6-10, 11+) romantic partners.

Health characteristics consisted of current fair or poor self-rated health (yes, no); diagnosis at any time of high blood cholesterol/triglycerides/lipids, high blood pressure/hypertension, asthma/chronic bronchitis/emphysema, migraine headaches, depression, anxiety/panic disorder, and ADHD/attention problems (yes, no for each); current body mass index (BMI) classification from measured height and weight (normal, overweight, obese); current hypertension classification from measured blood pressure (normal, prehypertensive, hypertensive); current health insurance (yes, no); any instance of foregone health care in the past 12 months (yes, no); receipt of physical and dental examinations and psychological counseling in the past 12 months (yes, no for each); and depression according to a modified Center for Epidemiologic Studies Depression Scale (CES-D; yes, no).

Bivariate analyses assessed the associations between each characteristic and sexual minority status, stratified by biological sex. Chi-square tests were used for categorical variables and t-tests were used for continuous variables to test for statistical significance at $p<0.05$. Analyses were performed with Stata version 11 (Stata Corp., College Station, TX), using survey commands to incorporate sampling weights and account for Add Health's complex survey design.

Preliminary Results

A greater proportion of women than of men endorsed any indicator of sexual minority status (24.8% vs 9.4%). Characteristics demonstrating statistically significant differences between sexual minorities and the majority population for either or both sexes are shown in Table 1 in bold. Among women, sexual minorities were younger, less educated, were more likely to live in the west and in urban areas, less religious, more likely to report financial hardships, and reported more other-sex sexual partners. Perceived position on the social status ladder had a statistically significant but negligible difference for women (mean = 4.73 for sexual minorities vs. 5.04). There were a number of differences on health indicators; sexual minority women were more likely to report fair/poor health, diagnosis of chronic illness, and diagnosis of depression/anxiety/panic disorder (and high scores on the CES-D). Sexual minority women were also more likely to report being uninsured and having foregone health care.

There were fewer differences among men, but those seen were mostly similar to difference patterns seen for women. Sexual minority men were more likely to live in urban areas and to report financial hardships. On health indicators, sexual minority men were more likely to be of normal weight, but also more likely to report diagnoses of depression and anxiety/panic disorder (and high scores on the CES-D), more likely to report receiving psychological counseling, and more likely to report being uninsured and foregoing needed health care. Unlike sexual minority women, however, sexual minority men had fewer other-sex partners compared with sexual majority men.

No significant differences were evident for parent education, military service, diagnosed high blood cholesterol or high blood pressure, and measured blood pressure classification for either sex (comparisons not shown). Same-sex partner counts at age 18 and in total were run only for sexual minorities by definition; the highest proportions of men had no same-sex partners by age 18 (66.6%) and 4 or more partners by Wave IV (36.7%) while the highest proportions of women had no same sex partners at either time (81.9% by age 18 and 41.2% at Wave IV).

Future Plans

Additional characteristics will be described in future analyses, including current occupation and income, current relationship status and quality, current parenting status, current and lifetime substance abuse and dependence, and current use of antidepressant and anxiolytic medications. Further, we will examine differences in health and health care outcomes controlling for demographic characteristics that distinguish sexual minorities. These preliminary analyses suggest that health disparities among sexual minorities that have been documented in adolescence are also evident during young adulthood. Findings will be discussed in the context of potential underlying mechanisms. Understanding the sociodemographic and developmental factors contributing to health disparities is critical for sound public policy formation and diminishing health disparities (Halpern, 2011).

Table 1. Characteristics of Young Adults by Sexual Minority Status and Biological Sex, Add Health, 2008.

	Men (n=6,828)		Women (n=7,766)	
Characteristic	**Sexual Minority (n=660)**	**Majority (n=6,168)**	**Sexual Minority (n=1,871)**	**Majority (n=5,895)**
Race/ethnicity, %				
Non-Hispanic white	61.8	66.5	**69.5**	**65.0**
Non-Hispanic black	15.1	15.4	**17.7**	**11.7**
Hispanic/Latino	16.7	11.3	**11.7**	**11.7**
Non-Hispanic other	6.2	6.7	**7.0**	**5.6**
Age, %				
24-27	33.0	34.8	**41.5**	**36.2**
28-29	31.1	33.1	**36.2**	**33.3**
30+	35.9	32.1	**22.4**	**30.6**
Current education, %				
Any or completed high school or GED	28.4	31.5	**24.6**	**20.4**
Some college	40.5	42.0	**47.0**	**43.9**
College graduate	31.1	26.6	**28.4**	**35.7**
Family structure in adolescence, %				
Two biological parents	50.9	55.6	**49.1**	**55.8**
Other two parent	17.5	17.1	**19.4**	**15.5**
Single mother	23.0	18.1	**22.8**	**20.8**
Other	8.5	9.3	**8.7**	**7.9**

Table 1 continued

Characteristic	Men (n=6,828) Sexual Minority (n=660)	Men (n=6,828) Majority (n=6,168)	Women (n=7,766) Sexual Minority (n=1,871)	Women (n=7,766) Majority (n=5,895)
Region, %				
West	19.7	15.4	**20.4**	**15.7**
Midwest	31.4	31.1	**31.8**	**32.2**
South	33.8	39.9	**32.5**	**39.5**
Northeast	15.1	13.6	**15.3**	**12.3**
Urbanicity, %				
Urban	**39.5**	**30.3**	**34.5**	**30.6**
Suburban	**32.0**	**37.7**	**40.1**	**41.3**
Rural	**15.3**	**20.5**	**15.7**	**19.9**
Religious denomination, %				
Protestant or other Christian	**41.8**	**52.3**	**46.8**	**61.8**
Catholic	**20.3**	**21.0**	**18.3**	**20.9**
None/atheist/agnostic	**26.2**	**22.3**	**27.6**	**14.5**
Other	**11.0**	**4.1**	**7.1**	**2.5**
Religiosity, mean (SE)	1.34 (0.09)	1.45 (0.04)	**1.47 (0.06)**	**2.11 (0.05)**
Receipt of public assistance, %				
Prior to age 18	17.4	17.2	**23.8**	**16.9**
Since last interview	20.4	19.2	**34.1**	**28.1**
Other financial hardship in past year, %	**30.8**	**21.9**	**37.1**	**24.7**
Current homeowner, %	**28.0**	**40.3**	**37.3**	**46.3**
Other-sex partner count, %				
Before age 18				
0-1	**60.3**	**47.9**	**38.0**	**59.0**
2-5	**27.0**	**35.1**	**40.6**	**31.5**
6+	**11.8**	**16.1**	**20.4**	**8.2**
Total by Wave IV				
0-1	**29.8**	**10.6**	**8.5**	**15.7**
2-5	**23.8**	**24.7**	**22.0**	**36.5**
6-10	**16.9**	**21.9**	**24.5**	**26.7**
11+	**28.6**	**41.3**	**43.7**	**19.4**
Fair or poor self-rated health, %	10.4	8.6	**14.0**	**8.1**
Diagnosed physical illness, %				
Asthma/chronic bronchitis/emphysema	15.8	12.7	**20.2**	**16.4**
Migraine headaches	**13.4**	**8.8**	**23.3**	**19.6**
Diagnosed mental illness, %				
Depression	**19.9**	**9.2**	**35.3**	**18.7**
Anxiety/panic disorder	**11.8**	**7.6**	**27.8**	**15.4**
ADHD/attention problems	8.4	7.6	**5.3**	**3.0**
BMI classification, %				
Normal	**38.2**	**28.8**	37.6	36.3
Overweight	**30.3**	**34.2**	23.0	25.0
Obese	**29.9**	**35.6**	37.8	37.3
Uninsured, %	**33.1**	**25.5**	**23.1**	**16.5**
Foregone care in past year, %	**30.4**	**25.2**	**35.5**	**21.2**
Health care in past year, %				
Physical exam	49.7	47.9	**65.1**	**71.9**
Dental exam	48.5	51.2	**53.9**	**62.8**
Psychological counseling	**11.2**	**7.5**	**20.6**	**9.5**
Meeting CES-D depression criteria, %	**21.1**	**15.1**	**21.5**	**11.8**

Abbreviations: SE, standard error of the mean; GED, general educational development certificate; ADHD, attention deficit hyperactivity disorder; BMI, body mass index; CES-D, Center for Epidemiologic Studies Depression Scale.
Bolded text indicates statistically significant difference between sexual minority and majority at $p<0.05$.
Percentages and means are weighted to obtain national probability estimates.
Percentages may not add up to 100 due to missing data.

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