

Sexual Orientation and Health Risk Behaviors among Rhode Island Public High School Students, 2009

Bruce Cryan, MBA, MS, and Donald Perry, MPA

NINE PERCENT (9%) OF PUBLIC HIGH SCHOOL STUDENTS RESPONDING to the 2009 Rhode Island Youth Risk Behavior Survey (YRBS) reported that they were **lesbian, gay, bisexual or unsure (LGBU)** of their sexual identity. This percentage represents approximately 4,600 students statewide. The authors examined whether there were any differences in health risk behaviors and exposures for this population versus their heterosexual peers.

METHODOLOGY

In the spring of 2009, 3,213 Rhode Island high school (grades 9-12) students participated in the YRBS. The YRBS is a biennial, sample survey of public high school students administered nationally and in over 60 states and municipalities. The **Centers for Disease Control and Prevention (CDC)** developed the YRBS to monitor risk behaviors related to the major causes of mortality, disease, and injury in the U.S.¹ Survey data are weighted to be representative of the statewide population of public secondary school students.

The 2009 YRBS asked Rhode Island students the following question: "Which of the following best describes you? 1) heterosexual; 2) lesbian or gay; 3) bisexual, or 4) not sure." Their responses were then parsed into two categories, students self-reporting either #1 (heterosexual), or #s 2, 3 or 4 (LGBU).

The authors reviewed 21 behavioral measures related to violence and injuries, mental health, tobacco, alcohol and other drugs, sexual behavior, weight, and physical activity. As sample survey data can only produce estimates, confidence intervals (i.e., value ranges) were calculated around each observed percentage representing where the actual population value would lie 95% of the time. For each risk measure, the authors compared whether there was any overlap in the confidence intervals for LGBU versus heterosexual students. The lack of any overlap is an indication that there was a statistically significant difference between the two groups.²

RESULTS

Demographically, LGBU students were more prevalent among females (11% versus 6% for males), students with physical disabilities (19% versus

7% for the non-physically disabled), and students with emotional problems or learning disabilities (22% versus 7% for the non-emotionally disabled). LGBU students were also more common among low academic performers (mostly 'D & F' grades) than high performers (mostly 'A & B' grades) at 14% versus 7%, respectively.

Compared to heterosexual students, LGBU students were at greater risk for 17 of the 21 risk behaviors in this study. Violence was much more common among LGBU students. (Figure 1) They were one and a half times more likely to have been in a physical fight, and almost twice as likely to have been a victim of dating violence. In addition, the forced intercourse rate was almost three times higher for this group compared to heterosexuals. In contrast, injury risks were mixed for LGBU students. Although there was a significantly higher rate of not wearing seat belts, the LGBU group had a statistically comparable rate for riding with a driver who had been drinking alcohol. (Figure 1)

LGBU students were at greater risk for mental health issues than heterosexual students. (Figure 1) For example, compared to heterosexual students, LGBU students were almost twice as likely to report feeling sad or hopeless and were over three times more likely to report they had planned to commit suicide. Most

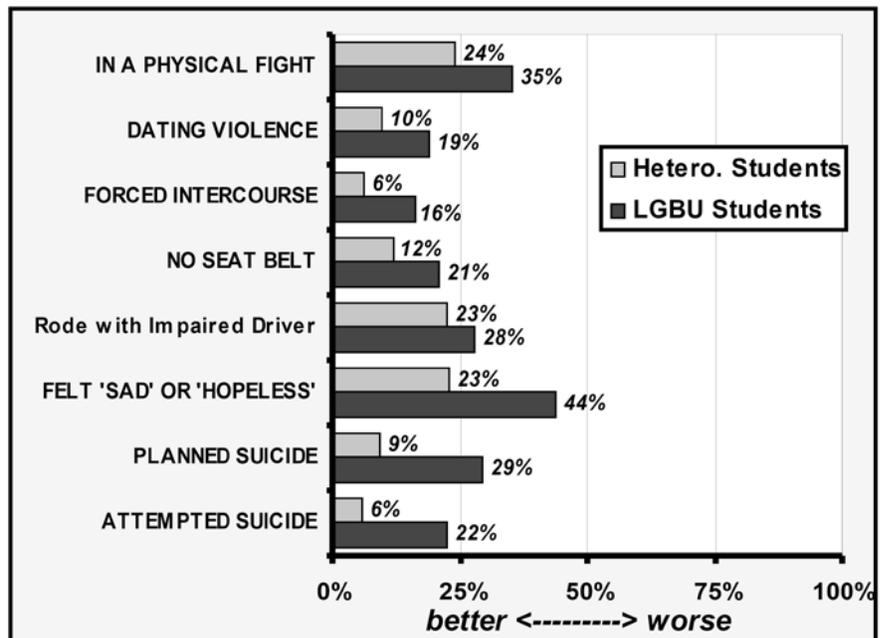


Figure 1. 2009 Violence, Injury, and Mental Health Risks by Sexual Orientation (significant differences are in CAPS)

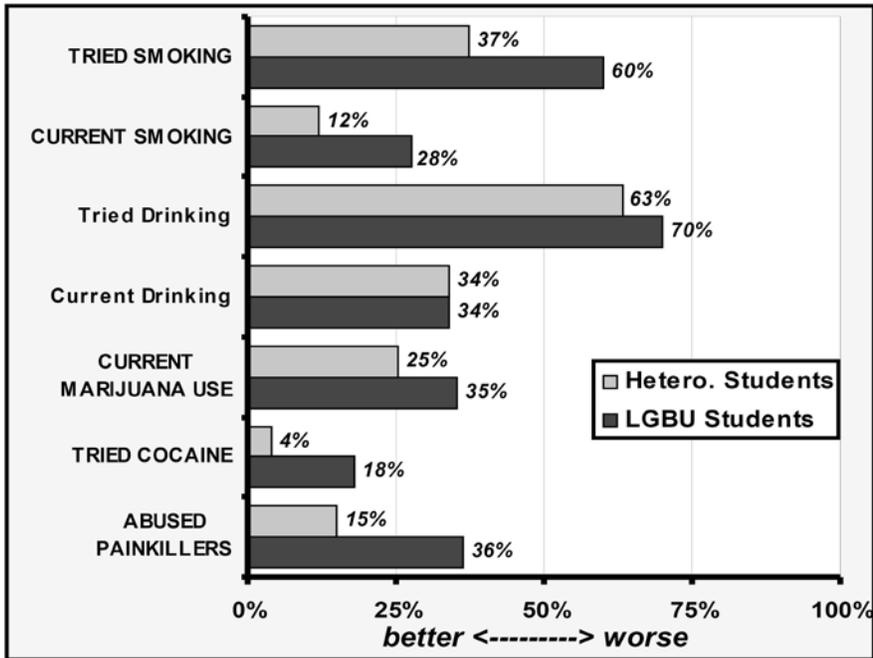


Figure 2. 2009 Substance Abuse Risks by Sexual Orientation (significant differences are in CAPS)

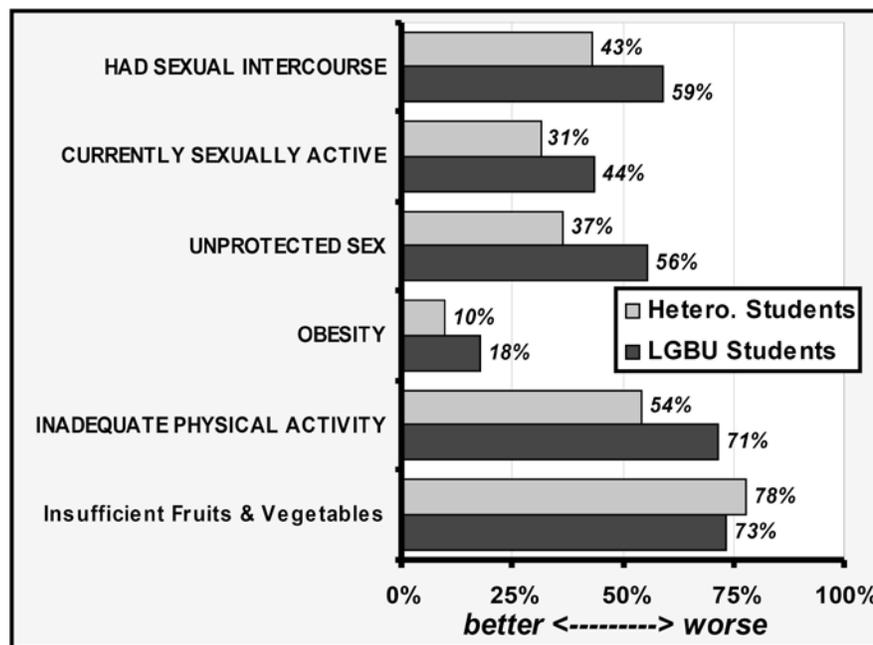


Figure 3. 2009 Other Health Risks by Sexual Orientation (significant differences are in CAPS)

telling, however, was an attempted suicide rate (22%) that was almost four times higher for this vulnerable population compared to heterosexual students (6%).

Tobacco related risks were also higher for LGBU students compared to heterosexual students, where more of them had tried smoking at least once (60% versus 37%), and over twice as many were current cigarette smokers (within past 30 days). (Figure 2)

In contrast, LGBU students were not at greater risk for alcohol use. (Figure 2) The rates for students that had tried

drinking were statistically comparable as were the rates for current drinking (within past 30 days). However, abuse of other drugs was higher among LGBU students. (Figure 2) They were more likely to be current marijuana users (within past 30 days), and over four times as likely to have ever tried cocaine. Furthermore, over twice as many LGBU students had abused prescription painkillers.

LGBU students were also at greater risk for sexual activity than heterosexual students. (Figure 3) They were 1.4 times more likely to have ever had sexual intercourse or to be currently sexually active (past three months). Sexually active LGBU students were also one and a half times more likely to have had intercourse without a condom compared to their heterosexual peers.

Physical activity and weight issues were generally more prevalent for LGBU than heterosexual students. (Figure 3) The rate of inadequate exercise among LGBU adolescents was much higher, which most likely contributed to their obesity rate being nearly twice that for heterosexuals. In contrast, insufficient consumption of fruits and vegetables was not appreciably different between the two population groups. (Figure 3)

DISCUSSION

LGBU high school students are clearly a vulnerable population displaying a higher prevalence of health risk behaviors across most categories. Dating violence (one in five LGBU students), forced sexual intercourse (one in six students), attempted suicide (over one in five students), and unsafe sex (over half of sexually active students) are particularly disturbing. Equally noteworthy is that more than one in three LGBU students had

abused painkillers or were current marijuana users and nearly one in five had ever tried cocaine.

Reducing health disparities, such as those described above, requires concerted effort in identifying at-risk groups and their particular vulnerabilities. Physicians and other healthcare providers play an important role through identification and referrals. Effective interventions for LGBU youth, such as physical and mental health counseling and referrals, can help them to change negative behaviors over which they have control (e.g., smoking, unprotected sex), and avoid exposure to other

risk situations in which they are essentially victims (e.g., rape, dating violence). This may be especially true for females, low academic performers, and the disabled who are more likely to identify as LGBU.

REFERENCES

1. Handbook for Conducting Youth Risk Behavior Surveys-2009, Centers for Disease Control and Prevention, June 2008.
2. Youth at Risk – 2009 Sexual Orientation & Health Risks, RI Department of Health and RI Department of Elementary & Secondary Education; Cryan B, Perry D, Jiang Y, and Silvia AM; November 2010.

Bruce Cryan, MBA, MS, is the YRBS Coordinator in the Center for Health Data and Analysis at the RI Department of Health.

Donald Perry, MPA, is the Health Surveys Program Administrator in the Center for Health Data and Analysis at the RI Department of Health.

Disclosure of Financial Interests

The authors and/or their spouses/significant others have no financial interests to disclose.

CORRESPONDENCE

Bruce Cryan, MBA, MS
phone: (401) 222-5111
e-mail: bruce.cryan@health.ri.gov)

Information for Contributors

Medicine & Health/Rhode Island is peer-reviewed, and listed in the *Index Medicus*. We welcome submissions in the following categories:

CONTRIBUTIONS

Contributions report on an issue of interest to clinicians in Rhode Island: new research, treatment options, collaborative interventions, review of controversies. Maximum length: 2500 words. Maximum number of references: 15. Tables, charts and figures should be submitted as separate electronic files (jpeg, tif, or pdf). Each submission should also be accompanied by a short (100-150 words) abstract.

CREATIVE CLINICIAN

Clinicians are invited to describe cases that defy textbook analysis. Maximum length: 1200 words. Maximum number of references: 6. Photographs, charts and figures may accompany the case.

POINT OF VIEW

Readers share their perspective on any issue facing clinicians (e.g., ethics, health care policy, relationships with patients). Maximum length: 1200 words.

ADVANCES IN PHARMACOLOGY

Authors discuss new treatments. Maximum length: 1200 words.

ADVANCES IN LABORATORY MEDICINE

Authors discuss a new laboratory technique. Maximum length: 1200 words.

IMAGES IN MEDICINE

Authors submit an interesting Image, with a 300-400 word explanation.

For the above articles: Please submit an electronic version (Microsoft Word or Text) with the author's name, mailing address, phone, fax, e-mail address, and clinical and/or academic positions to the managing editor, John Teehan, e-mail: jtteehan@rimed.org. For additional information, phone: (631) 903-3389. Faxes may be sent to (401) 826-1926.

HELP WANTED, SPACE TO LEASE, OR EQUIPMENT TO SELL?



Whether you are a RIMS member or not, you can post all of the particulars of your message on the Medical Society's website – **Classified Ads Section** – for a very reasonable rate. Purchase ad space in *Medicine & Health/RI* and your online classified ad is **FREE**.

Your ad will run for four weeks, with discounted rates for multiple months. We will link your ad to your email address or website for easy replies. For more information, please visit www.rimed.org or contact Cheryl Turcotte at RIMS: 401-331-3207.