Adverse Childhood Experiences, Sexual Orientation, and Adult Health

Safe States Annual Meeting 2015
April 30th, 2015
Mental and Physical Health Disparities by Sexual Orientation

• Increasing evidence from population based surveys

• Strong evidence of mental health and substance use disparities\(^1-4\)
  • Higher rates of depression, anxiety, alcohol and other substance dependence, current smoking

• More limited evidence regarding physical health disparities\(^5-6\)
  • Higher rates of asthma and activity limitations
  • Among women, higher rates of asthma, CVD risk, and obesity

Disparities in Child Abuse and ACEs by Sexual Orientation

• ACEs: traumatic or stressful live events experienced before age 18
  • Childhood abuse
    • Physical abuse
    • Sexual abuse
    • Emotional abuse
  • Household dysfunction
    • Household member who was depressed, mentally ill, or suicidal
    • Alcohol or drug abuse in household
    • Incarcerated household member
    • Violence between adults in the household
    • Parental divorce or separation
  • Life course impacts on physical and mental health

Disparities in Child Abuse and ACEs by Sexual Orientation

- Consistent findings of higher rates of childhood sexual, physical, and emotional abuse\(^9\)-\(^12\)
- Lack of inclusion of measures of household dysfunction\(^13\)
- To date, one study examining cumulative exposure to ACEs\(^14\)
  - LGB adults were more likely to report 7 of 8 ACE categories
  - LGB adults were more likely to report multiple ACEs

Objectives

- Estimate prevalence of ACEs by sexual orientation
- Examine association of sexual orientation with health risks, perceived poor health, and chronic conditions in adulthood before and after adjustment for cumulative exposure to ACEs
Methods

• 2012 N.C., 2011 WA, 2011 and 2012 WI BRFSS

• Sexual orientation
  • “Do you consider yourself to be...”
    • Heterosexual or straight
    • Homosexual, gay, or lesbian
    • Bisexual
    • Something else

• ACE Module
  • 11 questions assess 8 categories of ACEs

• ACE Score
  • Exposure to any single category counts as one point toward score
  • Final score ranges from 0 to 8
  • Measure of cumulative exposure to ACEs
Analysis

• SAS survey procedures

• Prevalence of demographics, ACE categories, and ACE score by sexual orientation

• Multivariate logistic regression
  • Adjusted odds ratios examining odds of outcomes for lesbian, gay, or bisexual (LGB) individuals compared to heterosexuals
  • Model 1: adjustment for age, sex, marital status, income
    • Adjustment for current smoking in perceived poor health and chronic conditions models
  • Model 2: additional adjustment for ACE score
Study Sample

37,268 total respondents

30,401 (81.6%) responses to sexual orientation question and ACE module

711 (2.6%) lesbian, gay, or bisexual

29,690 (97.3%) heterosexual

Source: N.C. 2012, WA 2011, WI 2011, WI 2012 BRFSS
WA State Department of Health, Center for Health Statistics, Behavioral Risk Factor Surveillance System, supported in part by CDC, Cooperative Agreement U58/SO000047-1 through 3
Prevalence of Demographics by Sexual Orientation

Source: N.C. 2012, WA 2011, WI 2011, WI 2012 BRFSS
Prevalence of ACE Score by Sexual Orientation

42% of lesbian, gay, or bisexual individuals reported 3-8 ACEs

Heterosexual
Lesbian, Gay, Bisexual

Source: N.C. 2012, WA 2011, WI 2011, WI 2012 BRFSS
Prevalence of ACE Score by Sexual Orientation
Among those Reporting One or More ACEs

Lesbian, Gay, Bisexual
- 28.8%
- 25.5%
- 16.7%
- 12.8%
- 16.2%

Heterosexual
- 38.8%
- 15.1%
- 10.2%
- 14.7%
- 21.3%

Source: N.C. 2012, WA 2011, WI 2011, WI 2012 BRFSS
Prevalence of ACE Categories by Sexual Orientation

<table>
<thead>
<tr>
<th>Category</th>
<th>Heterosexual</th>
<th>Lesbian, Gay, Bisexual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Abuse</td>
<td>15.5%</td>
<td>28.3%</td>
</tr>
<tr>
<td>Substance Abuse in Household</td>
<td>27.1%</td>
<td>28.0%</td>
</tr>
<tr>
<td>Parental Separation/Divorce</td>
<td>29.7%</td>
<td>27.0%</td>
</tr>
<tr>
<td>Adult Mental Illness in Household</td>
<td>33.2%</td>
<td>34.7%</td>
</tr>
<tr>
<td>Physical Abuse</td>
<td>11.7%</td>
<td>17.0%</td>
</tr>
<tr>
<td>Sexual Abuse</td>
<td>16.8%</td>
<td>17.4%</td>
</tr>
<tr>
<td>Violence between Adults in Household</td>
<td>29.1%</td>
<td>27.1%</td>
</tr>
<tr>
<td>Incarcerated Household Member</td>
<td>7.9%</td>
<td>15.5%</td>
</tr>
</tbody>
</table>

Source: N.C. 2012, WA 2011, WI 2011, WI 2012 BRFSS
Examples of Adjusted Odds Ratios: Lesbian, Gay, Bisexual vs. Heterosexual

<table>
<thead>
<tr>
<th>Health Indicators</th>
<th>aOR¹ (95% CI)</th>
<th>aOR² (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Health risks</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current smoker</td>
<td>1.36 (1.06, 1.74)</td>
<td>1.13 (0.87, 1.48)</td>
</tr>
<tr>
<td>Binge drinking</td>
<td>1.35 (1.02, 1.79)</td>
<td>1.28 (0.96, 1.71)</td>
</tr>
<tr>
<td>HIV risk</td>
<td>4.67 (3.36, 6.50)</td>
<td>3.87 (2.70, 5.56)</td>
</tr>
<tr>
<td><strong>Perceived poor health</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14+ days poor physical health</td>
<td>1.54 (1.08, 2.18)</td>
<td>1.11 (0.78, 1.58)</td>
</tr>
<tr>
<td>14+ days poor mental health</td>
<td>2.22 (1.62, 2.97)</td>
<td>1.68 (1.24, 2.29)</td>
</tr>
<tr>
<td>14+ days of activity limitation</td>
<td>2.01 (1.41, 2.87)</td>
<td>1.53 (1.05, 2.23)</td>
</tr>
<tr>
<td><strong>Chronic conditions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current asthma</td>
<td>1.81 (1.30, 2.54)</td>
<td>1.55 (1.09, 2.19)</td>
</tr>
<tr>
<td>Depressive disorder</td>
<td>2.42 (1.91, 3.07)</td>
<td>1.88 (1.46, 2.41)</td>
</tr>
<tr>
<td>Disability</td>
<td>1.71 (1.32, 2.20)</td>
<td>1.44 (1.11, 1.86)</td>
</tr>
</tbody>
</table>

Source: N.C. 2012, WA 2011, WI 2011, WI 2012 BRFSS

¹aOR not adjusted for ACE score; ²aOR adjusted for ACE score
³aOR adjusted for sex, age, marital status, and income
⁴aOR adjusted for sex, age, marital status, income, and current smoking
Conclusions

• High prevalence of childhood abuse and household dysfunction among LGB individuals
  • Assessment for both in future research and practice

• Importance of cumulative ACE exposure to LGB health
  • Prevention of revictimization

• Attenuation of odds ratios after adjustment for ACE score
  • Higher rates of ACEs among LGB individuals may explain some of the excess risk for certain poor outcomes
  • Other potentially mediating factors
Prevention and Action in North Carolina

• Essentials for Childhood
  • Task Force of diverse stakeholders
  • Strategic plan to reduce child maltreatment and secure family well-being

• Buncombe County ACEs Collaborative
  • Educational tool-kit for primary care providers
  • Speakers bureau
  • Southeastern ACEs Summit
Limitations

• Cross-sectional data

• Retrospective self-report of ACEs
  • Likely an underestimation
  • Good test-retest reliability
  • Recall or willingness to report ACEs may differ by sexual orientation

• Sample size did not permit for stratified analyses by sex or specific orientations within LGB population
Acknowledgements

Harry Herrick, MSPH, MSW, MEd
Survey Analyst, N.C. State Center for Health Statistics, North Carolina Division of Public Health

Scott Proescholdbell, MPH
Head Injury Epidemiology and Surveillance Unit, Injury and Violence Prevention Branch, North Carolina Division of Public Health

Marnie Boardman, MPH
BRFSS Coordinator, Washington State Department of Health

Anne Ziege, PhD
BRFSS Coordinator, Office of Health Informatics, Wisconsin Division of Public Health

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Questions?

Anna Austin, MPH
CDC/CSTE Applied Epidemiology Fellow
Injury and Violence Prevention Branch
N.C. Division of Public Health
anna.austin@dhhs.nc.gov