The Prevalence of Sexual Assault Against People Who Identify as Gay, Lesbian, or Bisexual in the United States: A Systematic Review

Emily F. Rothman¹, Deinera Exner², and Allyson L. Baughman¹

Abstract
This article systematically reviews 75 studies that examine the prevalence of sexual assault victimization among gay or bisexual (GB) men, and lesbian or bisexual (LB) women, in the United States. All studies were published between 1989 and 2009 and report the results of quantitative research. The authors reviewed the reported prevalence of lifetime sexual assault victimization (LSA), and where available, childhood sexual assault (CSA), adult sexual assault (ASA), intimate partner sexual assault (IPSA), and hate crime-related sexual assault (HC). The studies were grouped into those that used a probability or census sampling technique (n = 25) and those that used a non-probability or “community-based” sampling technique (n = 50). A total of 139,635 gay, lesbian, and bisexual (GLB) respondents participated in the underlying studies reviewed. Prevalence estimates of LSA ranged from 15.6-85.0% for LB women and 11.8–54.0% for GB men. Considering the median estimates derived from the collective set of studies reviewed, LB women were more likely to report CSA, ASA, LSA, and IPSA than GB men, whereas GB men were more likely to report HC than LB women. Across all studies, the highest estimates reported were for LSA of LB women (85.0%), CSA of LB women (76.0%), and CSA of GB men (59.2%). With some exceptions, studies using non-probability samples reported higher sexual assault prevalence rates than did population-based or census sample studies. The challenges of assessing sexual assault victimization with GLB populations are discussed, as well as the implications for practice, policy, and future research.

Keywords
sexual assault, gay, lesbian, bisexual, rape, violence, review, partner violence, child sexual abuse, hate crimes

Key Points of the Research Review
• The reported prevalence of lifetime sexual assault (LSA) ranged from 12% to 54.0% among gay and bisexual (GB) males and from 16% to 85.0% among lesbian and bisexual (LB) females.
• The median estimate of lifetime sexual assault for GB men was 30%, and the median estimate of lifetime sexual assault for LB women was 43%.
• Given that estimates of lifetime sexual assault prevalence among U.S. residents are 11–17% for women and 2–3% for men (Basile, Chen, Lynberg, & Saltzman, 2007; Tjaden & Thoennes, 2000), we conclude that GLB individuals may be at increased risk for sexual assault victimization.
• Approximately, 39% of the studies involving GB men and 26% of the studies involving LB women used population-based methods instead of convenience sampling.
• Studies using convenience samples generally reported higher sexual assault victimization rates across all types of sexual assault as compared to studies using population-based or census methods.
• Studies of childhood sexual assault were more prevalent than studies of intimate partner sexual assault, adult sexual assault, lifetime sexual assault, or hate crime-related sexual assault.

Introduction
Sexual assault is a substantial public health problem in the United States and throughout the world. As many as 11–17% of women and 2–3% of men in the United States report having experienced sexual assault victimization (Basile, Chen,

1 Department of Community Health Sciences, Boston University School of Public Health, Boston, MA, USA
2 Cornell University, Ithaca, NY, USA

Corresponding Author:
Emily F. Rothman, Department of Community Health Sciences, Boston University School of Public Health, 801 Massachusetts Avenue, Floor 3, Crosstown Center, Boston, MA 02118, USA
Email: erothman@bu.edu
Lynberg, & Saltzman, 2007; Tjaden &Thoennes, 2000). The results of national surveys from countries in all regions of the globe find 5-year prevalence rates of sexual assault victimization that range from 0.3% to 8.0% among women age 16 and older (World Health Organization, 2002).

Some have suggested that the rates of sexual assault victimization among gay, lesbian, or bisexual (GLB) individuals may be elevated compared to those in heterosexual populations, and several plausible mechanisms for such a disparity have been proposed (Austin et al., 2008; Blake, Ledsky, Lehman, Goodenow, Sawyer, & Hack, 2001; Todahl, Linville, Bustin, Wheeler, & Gau, 2009; Wilson & Widom, 2010). These suggestions remain speculative, however, as estimates of sexual violence victimization among GLB individuals range widely, and often have been derived from convenience samples and are therefore non-generalizable.

Researchers and practitioners currently struggle with the range of estimates of the prevalence of sexual violence victimization among GLB people and urgently need more specificity in order to proceed with funded initiatives. For example, the U.S. Rape Prevention and Education (RPE) funding awarded by the U.S. Centers for Disease Control and Prevention is to be used to support education, awareness, and training to prevent sexual violence (U.S. Centers for Disease Control and Prevention, 2009). In many states, practitioners want to use RPE funds to focus on sexual assault prevention with GLB individuals because they are perceived to be at heightened risk for victimization. Is the focus on GLB populations supported by available data? Moreover, in some locales policy makers and program planners are considering the mounting evidence that GLB youth are disproportionately the targets of bullying and physical violence (Russell, Franz, & Driscoll, 2001), are at increased risk for substance use (Marsh and et al., 2008), and suicide (Garafalo, Wolf, Wissow, Woods, & Goodman, 1999), and therefore require stronger supportive and antiviolence programming in schools. As they develop these programs, and propose policies to deter the perpetration of violence against GLB youth, the prevalence of sexual violence against these youth would be critical to consider.

The purpose of this systematic review is to describe the prevalence of sexual violence victimization among GLB people in the United States, discuss the related methodological difficulties, and identify areas of future research. This review will also distinguish between different forms of sexual violence victimization by perpetrator type, and across the life span, in order to highlight needs for future prevention-oriented research.

**Method**

**Search Strategy**

To compile a list of publications for possible inclusion in this review, we searched Medline and PsycINFO for articles containing prevalence estimates of sexual violence victimization of GLB people using the following search terms: victimization or violence or sexual assault or rape or abuse or childhood sexual abuse, and gay or lesbian or same-sex or bisexual or homosexual or non-heterosexual or GLB or queer. We also reviewed the reference lists of selected publications in order to identify additional articles for potential inclusion and accepted two article nominations from one of the anonymous reviewers of this article.

**Inclusion Criteria**

Searches were restricted to peer-reviewed articles published in English between January 1, 1989 and December 31, 2009. The initial search returned 4,511 articles. To be included in this review, articles needed to meet the following additional criteria: report the results of quantitative research using a United States-based sample; report the prevalence of sexual violence victimization for a heterogeneous GLB sample (rather than for a specialized potentially high-risk subset such as “HIV-infected gay men,” “intravenous drug users,” or “homeless”); report results stratified by gender or for one gender, rather than grouping males and females; and have a response rate ≥30%. Five articles were excluded because we could not obtain the full text, and two were excluded because they presented data that were also published in a different article (i.e., duplicate results).

We included any article that was described by the authors as having assessed sexual assault, sexual abuse, or rape. However, studies that assessed only sexual harassment, bullying, sex work, survival sex, and/or sex trading were excluded for two reasons: (1) it was not possible to determine consistently if the studies on these topics were reporting on sexual violence and (2) it was necessary to make some definitional exclusions in order to keep this systematic review focused and feasible. In addition, we excluded four studies because they investigated narrow subtypes of sexual violence, such as “sexual assault perpetrated by female caregivers” or “sexual assault perpetrated in the workplace.” Because the prevalence of sexual violence victimization history was the outcome of interest, articles reporting incidence or that used a restricted time frame (e.g., past 5 years) were also excluded.

Our procedure for determining inclusion was as follows. One research team member scanned article abstracts in order to determine if returned articles met the above-listed second round of inclusion criteria. If a determination could not be made from the abstract, the full text of the article was reviewed by two research team members. Of the original 4,511 abstracts identified, 181 articles were selected for full text review. Of these, 110 were excluded because they did not meet our inclusion criteria. One included paper (Saewyc et al., 2006) presented results from five U.S. studies. Thus, our final yield was 71 articles that included results from 75 studies.

**Review Procedures**

All 71 articles were reviewed independently by two research team members using a predetermined template to extract desired information, including lifetime sexual assault (LSA)
victimization against GB males and LB females, and where available estimates of childhood sexual assault (CSA), adult sexual assault (ASA), intimate partner sexual assault (IPSA), and hate crime-related sexual assault (HC). We defined CSA as sexual assault occurring before the victim was 18 years old or sexual contact between a youth younger than 16 years old and a person 5 or more years older. We also included estimates of CSA from articles where the victim age was not presented, but the underlying article characterized the event as CSA. In six instances where prevalence data were not published in the original articles, but count data were provided, each of the reviewers independently calculated the prevalence and that statistic is presented here.

We classified studies into two groups: population-based or census studies and non-probability studies. Studies that had high external validity because all individuals in a particular geographic area had equal probability of being selected into the study, or that were described by the authors as a population-based or census study, were classified as a population-based or census study in our review. All other studies were classified as non-probability studies. For example, a survey of individuals who attended a GLB youth rally was classified as a non-probability study (Freedner, Freed, Yang, & Austin, 2002).

In instances when the underlying article presented two different estimates for G/L and B populations, or a prevalence range rather than a point estimate (e.g., “the prevalence of sexual violence in our sample ranged from 5% to 10%”), we selected to reprint the range rather than calculate a midpoint estimate. In instances where men were classified as “men who have sex with men” (MSM) in the underlying article, we classified them as GB in this review. Similarly, two-spirit and non-heterosexual individuals were classified as either GB or LB in our review. Discrepancies in opinion about how to interpret information or data presented in the underlying articles were discussed by all three authors until consensus was reached. We calculated the median prevalence rate reported for each type of sexual assault assessed by ordering the reported prevalence rates from low to high and selecting the midpoint rate. In instances where we had a prevalence rate range from the underlying article, we used the midpoint estimate in the rank ordering.

**Results**

Table 1 lists each of the 71 articles reviewed and the underlying studies’ sample sizes, study populations, geography, and the types of sexual assault victimization reported (e.g., CSA, ASA, LSA, IPSA, and/or HC). Note that while 71 articles were reviewed, one contained data from five studies, bringing the total number of studies reviewed to 75. Sample sizes ranged from 29 to 63,028, with a median sample size of 499. A total of 139,635 GLB respondents participated in the underlying studies reviewed. Of the 25 probability/census and 50 non-probability studies reviewed, 36% and 14% involved adolescent-only samples, respectively. Seven studies drew respondents from all 50 U.S. states, but the majority took place in select urban areas, including Baltimore, Boston, Chicago, Dallas, Denver, Los Angeles, Miami, Minneapolis/St. Paul, New York City, Portland, Sacramento, San Diego, San Francisco, Seattle, and Tucson. Forty-seven studies provide the prevalence of CSA, 19 provide the prevalence of IPSA, 18 provide the prevalence of LSA, 12 provide the prevalence of ASA, and 5 present the prevalence of HC.

**Prevalence of Sexual Assault Victimization**

Table 2 presents information from the 46 articles that report the prevalence of sexual violence against GB men, and Table 3 presents the information from the 43 studies that report the prevalence of sexual violence against LB women. Note that one study (Saewyc et al., 2006) presented results from five U.S. population-based samples, and each estimate is presented separately in Tables 2 and 3. Both tables are summarized in Table 4, which stratifies studies based on study design (population-based or census vs. non-probability). Approximately 39% of the studies involving GB men, and 26% of the studies involving LB women, used population-based methods (χ² = 1.74, p < .10). With some exceptions, the studies using non-probability methods reported higher sexual assault victimization rates across all types of sexual assault as compared to the studies using population-based or census methods (Table 4).

The prevalence of CSA for males ranged from 4.1% to 59.2% (median 22.7%; Tables 2 and 4) and from 14.9% to 76.0% for females (median 34.5%; Tables 3 and 4). The prevalence of ASA for males ranged from 10.8% to 44.7% (median 14.7%; Tables 2 and 4) and from 11.3% to 53.2% for females (median 23.2%; Tables 3 and 4). The reported prevalence of LSA ranged from 11.8% to 54.0% among males (median 30.4%; Tables 2 and 4) and from 15.6% to 85.0% and from 15.6% to 85.0% among females (median 43.4%, Tables 3 and 4). The prevalence of IPSA for males ranged from 9.5% to 57.0% (median 12.1%; Tables 2 and 4) and from 2.0% to 45.0% for females (median 12.6%, Tables 3 and 4). The prevalence of HC for males ranged from 3.0% to 19.8% (median 14.0%; Tables 2 and 4) and from 1% to 12.3% for females (median 5.0%; Tables 3 and 4). Considering the median estimates derived from the collective set of studies reviewed, LB women were more likely to report CSA, ASA, LSA, and IPSA than GB men, whereas GB men were more likely to report HC than LB women (Table 4).

**Discussion**

This systematic review presents estimates of the prevalence of five forms of sexual assault experienced by GLB people from 71 peer-reviewed, published articles. Taken together, the findings suggest that sexual violence victimization is prevalent among GLB individuals. Furthermore, these data suggest that GLB individuals may be at increased risk for sexual violence victimization as compared to their heterosexual counterparts. According to population-based data, approximately 11–17% of women and 2–3% of men in the United States experience sexual assault during their lifetimes (Basile et al., 2007; Tjaden...
Table 1. Descript of Articles Reviewed that Report Estimates of the Prevalence of Sexual Assault Against GLB People (N = 71)

<table>
<thead>
<tr>
<th>Authors and Year of Publication</th>
<th>Number of Non-Heterosexual Respondents in Sample</th>
<th>Population for Sexual Assault Results</th>
<th>Location</th>
<th>Sexual Assault Victimization Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probability and census samples (n = 25)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Berg, Mimiaga, and Safren (2004)</td>
<td>56</td>
<td>GB</td>
<td>Boston</td>
<td>LSA</td>
</tr>
<tr>
<td>Berg, Mimiaga, and Safren (2008)</td>
<td>92</td>
<td>GB</td>
<td>Boston</td>
<td>LSA</td>
</tr>
<tr>
<td>Brennan, Hellestreit, Ross, and Welles (2007)</td>
<td>936</td>
<td>GB</td>
<td>Upper Midwest</td>
<td>CSA</td>
</tr>
<tr>
<td>Friedman, Marshal, Stall, Cheong, and Wright (2008)</td>
<td>1,383</td>
<td>G</td>
<td>San Francisco, New York, Los Angeles, Chicago</td>
<td>CSA</td>
</tr>
<tr>
<td>Jinich et al. (1998)</td>
<td>1,941</td>
<td>GB</td>
<td>Portland, Tucson</td>
<td>CSA</td>
</tr>
<tr>
<td>Kipped et al. (2007)</td>
<td>526</td>
<td>GB</td>
<td>Los Angeles County</td>
<td>LSA</td>
</tr>
<tr>
<td>Moracco, Runyan, Bowling, and Earp (2007)</td>
<td>1,800</td>
<td>LB</td>
<td>US (48 contiguous states)</td>
<td>ASA</td>
</tr>
<tr>
<td>Saewyc, Skay, Bearinger, Blum, and Resnick (1998)b</td>
<td>394</td>
<td>GLB</td>
<td>Minnesota</td>
<td>CSA</td>
</tr>
<tr>
<td>Saewyc, Bearinger, Blum, and Resnick (1999)b</td>
<td>3,816</td>
<td>LB</td>
<td>Minnesota</td>
<td>CSA</td>
</tr>
<tr>
<td>Saewyc et al. (2006)b,c</td>
<td>Sample 1 (MSS92)</td>
<td>1,710</td>
<td>GLB</td>
<td>Minnesota</td>
</tr>
<tr>
<td>Sample 2 (MSS98)</td>
<td>1,987</td>
<td>GLB</td>
<td>Minnesota</td>
<td>CSA</td>
</tr>
<tr>
<td>Sample 3 (SEA95)</td>
<td>325</td>
<td>GLB</td>
<td>Seattle</td>
<td>CSA</td>
</tr>
<tr>
<td>Sample 4 (SEA99)</td>
<td>314</td>
<td>GLB</td>
<td>Seattle</td>
<td>CSA</td>
</tr>
<tr>
<td>Sample 5 (Add Health)</td>
<td>n/a</td>
<td>LB</td>
<td>US</td>
<td>CSA</td>
</tr>
<tr>
<td>Sandfort et al. (2007)a</td>
<td>912</td>
<td>GB</td>
<td>New York, Miami, Los Angeles</td>
<td>IPSA</td>
</tr>
<tr>
<td>Scheer et al. (2003)</td>
<td>2,438</td>
<td>LB</td>
<td>Northern California</td>
<td>LSA</td>
</tr>
<tr>
<td>Tjaden, Thoennes, and Allison (1999)</td>
<td>744</td>
<td>GL</td>
<td>US (50 states and Washington, DC)</td>
<td>CSA, ASA, LSA, IPSA</td>
</tr>
<tr>
<td>Non-probability samples (n = 50)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aaron and Hughes (2007)</td>
<td>416</td>
<td>L</td>
<td>Chicago</td>
<td>CSA</td>
</tr>
<tr>
<td>Austin et al. (2008)</td>
<td>63,028</td>
<td>LB</td>
<td>US (14 states)</td>
<td>CSA</td>
</tr>
<tr>
<td>Balsam, Rothblum, and Beauchaine (2005)</td>
<td>1,245</td>
<td>GLB</td>
<td>US</td>
<td>CSA, ASA</td>
</tr>
<tr>
<td>Barney (2003)a,b</td>
<td>5,602</td>
<td>G</td>
<td>US (33 states)</td>
<td>CSA</td>
</tr>
<tr>
<td>Bartholow et al. (1994)</td>
<td>1,001</td>
<td>GB</td>
<td>Chicago, Denver, San Francisco</td>
<td>CSA</td>
</tr>
<tr>
<td>Bernhard (2000)</td>
<td>215</td>
<td>L</td>
<td>Midwest urban area</td>
<td>LSA</td>
</tr>
<tr>
<td>Carballo-Dieguez and Dolezal (1995)a</td>
<td>182</td>
<td>GB</td>
<td>New York City</td>
<td>CSA</td>
</tr>
<tr>
<td>Comstock (1989)</td>
<td>291</td>
<td>GL</td>
<td>US (31 states and DC)</td>
<td>HC</td>
</tr>
<tr>
<td>Corliss, Cochran, Mayes, Greeland, and Seeman (2009)</td>
<td>2,001</td>
<td>LB/non-het</td>
<td>Los Angeles County and San Francisco/Bay area</td>
<td>CSA</td>
</tr>
<tr>
<td>Dibble, Sato, and Haller (2007)a</td>
<td>289</td>
<td>L</td>
<td>California</td>
<td>CSA, ASA</td>
</tr>
</tbody>
</table>

(continued)
Our review of population-based studies finds that the prevalence estimates of LSA reported are approximately 15.6–85.0% for lesbian and bisexual (LB) women and 11.8–54.0% for gay and bisexual (GB) men. Relatively few studies made direct comparisons between LGB and heterosexual subpopulations within their samples. Additional

<table>
<thead>
<tr>
<th>Authors and Year of Publication</th>
<th>Number of Non-Heterosexual Respondents in Sample</th>
<th>Population for Sexual Assault Results</th>
<th>Location</th>
<th>Sexual Assault Victimization Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dolezal and Carballo-Dieguex (2002)a</td>
<td>307</td>
<td>GB</td>
<td>New York City</td>
<td>CSA</td>
</tr>
<tr>
<td>Duncan (1990)</td>
<td>412</td>
<td>GLB</td>
<td>Midwest</td>
<td>LSA</td>
</tr>
<tr>
<td>Feldman and Meyer (2007)</td>
<td>193</td>
<td>GB</td>
<td>New York City</td>
<td>CSA</td>
</tr>
<tr>
<td>Freedner et al. (2002)b</td>
<td>521</td>
<td>GLB</td>
<td>Northeast</td>
<td>IPSA</td>
</tr>
<tr>
<td>Garcia, Adams, Friedman, and East (2002)</td>
<td>138</td>
<td>GLB</td>
<td>San Diego</td>
<td>LSA</td>
</tr>
<tr>
<td>Griffith, Myers, Cusick, and Tankersley (1997)</td>
<td>115</td>
<td>L</td>
<td>N/A</td>
<td>CSA</td>
</tr>
<tr>
<td>Heidt, Marx, and Gold (2005)</td>
<td>307</td>
<td>GLB</td>
<td>N/A</td>
<td>CSA, ASA</td>
</tr>
<tr>
<td>Herek, Gillis, and Cogan (1999)</td>
<td>2,259</td>
<td>GLB</td>
<td>Sacramento</td>
<td>HC</td>
</tr>
<tr>
<td>Houston and McKirnan (2007)</td>
<td>817</td>
<td>GB</td>
<td>Chicago</td>
<td>IPSA</td>
</tr>
<tr>
<td>Hughes, Haas, and Avery (1997)</td>
<td>418</td>
<td>L</td>
<td>Chicago</td>
<td>CSA, IPSA</td>
</tr>
<tr>
<td>Hughes (2003)</td>
<td>120</td>
<td>L</td>
<td>Chicago</td>
<td>CSA, ASA</td>
</tr>
<tr>
<td>Lenderking, Wold, Mayer, Goldstein, Losina, and Seage III (1997)</td>
<td>327</td>
<td>GB</td>
<td>Boston</td>
<td>CSA</td>
</tr>
<tr>
<td>Lehavot, Walters, and Simoni (2009)a</td>
<td>152</td>
<td>LB</td>
<td>7 cities</td>
<td>CSA, LSA</td>
</tr>
<tr>
<td>Mimiaga et al. (2009)</td>
<td>4,244</td>
<td>GB</td>
<td>6 cities</td>
<td>CSA</td>
</tr>
<tr>
<td>Moore and Waterman (1999)</td>
<td>152</td>
<td>GL</td>
<td>N/A</td>
<td>ASA, IPSA</td>
</tr>
<tr>
<td>Morris and Balsam (2003)</td>
<td>2,431</td>
<td>LB</td>
<td>US (every state)</td>
<td>CSA, ASA, LSA, IPSA, HC</td>
</tr>
<tr>
<td>Mustanski, Garofalo, Herrick, and Donenberg (2007)b</td>
<td>310</td>
<td>GB</td>
<td>Chicago</td>
<td>LSA, IPSA</td>
</tr>
<tr>
<td>Roberts and Sorensen (1999)</td>
<td>1,633</td>
<td>L</td>
<td>US (50 states, Washington, DC and PR)</td>
<td>CSA, LSA</td>
</tr>
<tr>
<td>Rosario, Schrimshaw, and Hunter (2006)b</td>
<td>80</td>
<td>GB</td>
<td>New York City</td>
<td>LSA</td>
</tr>
<tr>
<td>Schneider (1991)</td>
<td>151</td>
<td>G</td>
<td>Puerto Rico</td>
<td>IPSA</td>
</tr>
<tr>
<td>Simoni, Walters, Balsam, and Meyers (2006)a</td>
<td>71</td>
<td>GB</td>
<td>New York City</td>
<td>IPSA</td>
</tr>
<tr>
<td>Stoddard, Dibble, and Fineman (2009)</td>
<td>324</td>
<td>LB</td>
<td>California</td>
<td>CSA, ASA, LSA</td>
</tr>
<tr>
<td>Thiede et al. (2003)b</td>
<td>3,492</td>
<td>GB</td>
<td>7 U.S. cities</td>
<td>LSA</td>
</tr>
<tr>
<td>Toro-Alfonso (1999)</td>
<td>151</td>
<td>G</td>
<td>Puerto Rico</td>
<td>IPSA</td>
</tr>
<tr>
<td>Turrel (2000)</td>
<td>499</td>
<td>GLB</td>
<td>SE Texas</td>
<td>IPSA</td>
</tr>
<tr>
<td>Waldner and Berg (2008)b</td>
<td>297</td>
<td>GLB</td>
<td>US (13 states)</td>
<td>HC</td>
</tr>
<tr>
<td>Waterman, Dawson, and Bologna (1989)</td>
<td>70</td>
<td>GL</td>
<td>Northern US</td>
<td>IPSA</td>
</tr>
<tr>
<td>Weingourt (1998)b</td>
<td>94</td>
<td>L</td>
<td>N/A</td>
<td>CSA</td>
</tr>
<tr>
<td>Wilsnack et al. (2008)</td>
<td>953</td>
<td>LB</td>
<td>Chicago, US (National)</td>
<td>CSA</td>
</tr>
</tbody>
</table>

Note. ASA: adult sexual assault; B: bisexual; CSA: childhood sexual assault; G: gay; HC: hate crime-related sexual assault; L: lesbian; LSA: lifetime sexual assault; IPSA: intimate partner sexual assault.

& Thoennes, 2000).
population-based studies that allow direct comparisons of the prevalence of sexual violence among GLB and heterosexual subgroups are needed, particularly among adults. Collectively, however, the currently available literature suggests that GLB people are likely at elevated risk for lifetime sexual violence victimization.

### Table 2. Summary of Prevalence Estimates of Sexual Assault Among Gay or Bisexual (GB) Men

<table>
<thead>
<tr>
<th>Study</th>
<th>Childhood Sexual Assault</th>
<th>Adulthood Sexual Assault</th>
<th>Lifetime Sexual Assault</th>
<th>Intimate Partner Sexual Assault</th>
<th>Hate Crime-Related Sexual Assault</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arreola et al. (2005)</td>
<td>29.4%</td>
<td>11.0–15.0%</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Arreola et al. (2008)</td>
<td>21.0%</td>
<td>–</td>
<td>–</td>
<td>–</td>
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<td>11.6–44.7%</td>
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<tr>
<td>Barney (2003)</td>
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<tr>
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<td>–</td>
<td>30.4%</td>
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<td>Berg et al. (2008)</td>
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<td>25.0%</td>
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<td>Brennan et al. (2007)</td>
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<td>Carballo-Dieuz and Dolezal (1995)</td>
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<tr>
<td>Comstock (1989)</td>
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<td>–</td>
<td>10.0%</td>
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<tr>
<td>D’Augelli et al. (2006)</td>
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<td>–</td>
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<tr>
<td>Dolezal and Carballo-Dieuz (2002)</td>
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<tr>
<td>Duncan (1990)</td>
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<td>–</td>
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</tr>
<tr>
<td>Feldman and Meyer (2007)</td>
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<td>10.0%</td>
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<td>16.9%</td>
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<td>Houston and McKirnan (2007)</td>
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<td>Mimiaga et al. (2009)</td>
<td>39.7%</td>
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<tr>
<td>Mustanski et al. (2007)</td>
<td>–</td>
<td>–</td>
<td>32.3%</td>
<td>11.0%</td>
<td>–</td>
</tr>
<tr>
<td>Paul et al. (2001)</td>
<td>20.6%</td>
<td>14.7%</td>
<td>–</td>
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</tr>
<tr>
<td>Rodriguez-Madera and Toro-Alfonso</td>
<td>–</td>
<td>–</td>
<td>25.0%</td>
<td>–</td>
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</tr>
<tr>
<td>Rosario et al. (2006)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>54.0%</td>
</tr>
<tr>
<td>Saewyc, Bearinger, et al. (1998)</td>
<td>17.8%</td>
<td>–</td>
<td>–</td>
<td>–</td>
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</tr>
<tr>
<td>Saewyc, Skay, et al. (1998)</td>
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<td>–</td>
</tr>
<tr>
<td>Saewyc et al. (2006)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Sample 1 (MSS92)</td>
<td>17.7–21.7%</td>
<td>–</td>
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<tr>
<td>Sample 2 (MSS98)</td>
<td>22.0–27.5%</td>
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<tr>
<td>Sample 3 (SEA95)</td>
<td>17.4–31.3%</td>
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<tr>
<td>Sample 4 (SEA99)</td>
<td>30.5–31.6%</td>
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</tr>
<tr>
<td>Sandfort et al. (2007)</td>
<td>–</td>
<td>–</td>
<td>9.5%</td>
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<tr>
<td>Simoni et al. (2006)</td>
<td>–</td>
<td>–</td>
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<td>10.0%</td>
<td>–</td>
</tr>
<tr>
<td>Thiede et al. (2003)</td>
<td>–</td>
<td>–</td>
<td>34.8%</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Tjaden et al. (1999)</td>
<td>15.4%</td>
<td>10.8%</td>
<td>26.2%</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Tomoe et al. (2001)</td>
<td>49.2%</td>
<td>–</td>
<td>–</td>
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</tr>
<tr>
<td>Toro-Alfonso (1999)</td>
<td>–</td>
<td>–</td>
<td>10.0–16.0%</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Toro-Alfonso and Rodriguez-Maderia</td>
<td>–</td>
<td>–</td>
<td>25.0%</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>(2004)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Turrell (2000)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>12.0%</td>
<td>–</td>
</tr>
<tr>
<td>Waldner and Berg (2008)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>19.8%</td>
</tr>
<tr>
<td>Waldner-Haugrud and Gratch (1997)</td>
<td>–</td>
<td>–</td>
<td>57.0%</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Waterman et al. (1989)</td>
<td>–</td>
<td>–</td>
<td>12.1%</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>
The methodologies used to assess sexual violence victimization across the studies reviewed varied widely. Differences in participant recruitment procedures, sampling strategies, conceptual definitions of sexual assault and sexual orientation categories, and instrumentation likely account for the variation in sexual assault prevalence rates that were detected. It is notable that the non-probability studies consistently found higher rates of sexual assault victimization, because it is therefore likely that some aspect of the methodology is related to the findings. What remains unclear is whether population-based studies are systematically underestimating the true prevalence of sexual assault or non-probability studies tend to

### Table 3. Summary of Prevalence Estimates of Sexual Assault Among Lesbian or Bisexual (LB) Women

<table>
<thead>
<tr>
<th>Study</th>
<th>Childhood Sexual Assault</th>
<th>Adulthood Sexual Assault</th>
<th>Lifetime Sexual Assault</th>
<th>Intimate Partner Sexual Assault</th>
<th>Hate Crime-Related Sexual Assault</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aaron and Hughes (2007)</td>
<td>31.0%</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Austin et al. (2008)</td>
<td>33.0–36.0%</td>
<td>–</td>
<td>–</td>
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<td>–</td>
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<tr>
<td>Balsam et al. (2005)</td>
<td>43.6–47.6%</td>
<td>11.3–53.2%</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Bernhard (2000)</td>
<td>–</td>
<td>–</td>
<td>54.0%</td>
<td>12.5–14.0%</td>
<td>–</td>
</tr>
<tr>
<td>Bradford et al. (1994) and Descamps et al. (2000)</td>
<td>21.0%</td>
<td>15.0%</td>
<td>41.0%</td>
<td>2.0%</td>
<td>–</td>
</tr>
<tr>
<td>Comstock (1989)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>5.0%</td>
<td>–</td>
</tr>
<tr>
<td>Corliss et al. (2009)</td>
<td>22.5–23.4%</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>D’Augelli et al. (2006)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Dibble et al. (2007)</td>
<td>34.7%</td>
<td>17.9%</td>
<td>–</td>
<td>–</td>
<td>5.0%</td>
</tr>
<tr>
<td>Doyle et al. (1999)</td>
<td>–</td>
<td>–</td>
<td>15.6–15.8%</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Duncan (1990)</td>
<td>–</td>
<td>–</td>
<td>30.6%</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Freedner et al. (2002)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>14.5–21.9%</td>
<td>–</td>
</tr>
<tr>
<td>Garcia et al. (2002)</td>
<td>–</td>
<td>–</td>
<td>24.0–53.0%</td>
<td>–</td>
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</tr>
<tr>
<td>Goodenow et al. (2008)</td>
<td>44.8%</td>
<td>–</td>
<td>–</td>
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</tr>
<tr>
<td>Griffith et al. (1997)</td>
<td>49.1%</td>
<td>–</td>
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</tr>
<tr>
<td>Heidt et al. (2005)</td>
<td>22.0%</td>
<td>21.1%</td>
<td>–</td>
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<tr>
<td>Herek et al. (1999)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>2.0–4.0%</td>
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<tr>
<td>Hughes et al. (1997)</td>
<td>29.0%</td>
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<td>–</td>
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<tr>
<td>Hughes et al. (2000)</td>
<td>41.0%</td>
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<td>16.0%</td>
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<tr>
<td>Hughes (2003)</td>
<td>68.0%</td>
<td>39.0%</td>
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<tr>
<td>Lehavot et al. (2009)</td>
<td>76.0%</td>
<td>–</td>
<td>85.0%</td>
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</tr>
<tr>
<td>Matthews et al. (2002)</td>
<td>30.0%</td>
<td>–</td>
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<tr>
<td>Moore and Waterman (1999)</td>
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<td>27.0%</td>
<td>–</td>
<td>27.0%</td>
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</tr>
<tr>
<td>Moracco et al. (2007)</td>
<td>–</td>
<td>22.2–47.1%</td>
<td>–</td>
<td>–</td>
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<tr>
<td>Morris and Balsam (2003)</td>
<td>39.3%</td>
<td>36.2%</td>
<td>53.1%</td>
<td>1.3–4.8%</td>
<td>&lt;2%</td>
</tr>
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<td>Rankow et al. (1998)</td>
<td>34.0%</td>
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<tr>
<td>Roberts and Sorensen (1999)</td>
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<td>–</td>
<td>45.8%</td>
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</tr>
<tr>
<td>Robohrn et al. (2003)</td>
<td>37.9%</td>
<td>–</td>
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<td>Saewyc, Bearinger, et al. (1998)</td>
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<td>Saewyc et al. (1999)</td>
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<td>26.6%</td>
<td>17.2%</td>
<td>34.9%</td>
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<td>16.5%</td>
<td>25.3%</td>
<td>35.4%</td>
<td>11.4%</td>
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<td>Turrell (2000)</td>
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<td>–</td>
<td>12.0%</td>
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<td>Walden and Berg (2008)</td>
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<td>Waldner-Haugrud and Gratch (1997)</td>
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<td>–</td>
<td>–</td>
<td>45.0%</td>
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<td>Waterman et al. (1989)</td>
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<td>Weingourt (1998)</td>
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Table 4. Summary of Prevalence Estimates Reported Across Studies Reviewed by Gender of Population Studied and Type of Sexual Assault

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<th>Type of Sexual Assault</th>
<th>Low</th>
<th>High</th>
<th>Median*</th>
</tr>
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<tr>
<td><strong>Using all available estimates (n = 75)</strong></td>
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<td></td>
<td></td>
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<tr>
<td>Gay/bisexual males</td>
<td></td>
<td></td>
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<tr>
<td>Childhood SA</td>
<td>4.1%</td>
<td>59.2%</td>
<td>22.7%</td>
</tr>
<tr>
<td>Adult SA</td>
<td>10.8%</td>
<td>44.7%</td>
<td>14.7%</td>
</tr>
<tr>
<td>Lifetime SA</td>
<td>11.8%</td>
<td>54.0%</td>
<td>30.4%</td>
</tr>
<tr>
<td>Intimate partner SA</td>
<td>9.5%</td>
<td>57.0%</td>
<td>12.1%</td>
</tr>
<tr>
<td>Hate crime-related SA</td>
<td>3.0%</td>
<td>19.8%</td>
<td>14.0%</td>
</tr>
<tr>
<td>Lesbian/bisexual females</td>
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<td></td>
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<tr>
<td>Childhood SA</td>
<td>14.9%</td>
<td>76.0%</td>
<td>34.5%</td>
</tr>
<tr>
<td>Adult SA</td>
<td>11.3%</td>
<td>53.2%</td>
<td>23.2%</td>
</tr>
<tr>
<td>Lifetime SA</td>
<td>15.6%</td>
<td>85.0%</td>
<td>43.4%</td>
</tr>
<tr>
<td>Intimate partner SA</td>
<td>2.0%</td>
<td>45.0%</td>
<td>12.6%</td>
</tr>
<tr>
<td>Hate crime-related SA</td>
<td>1.0%</td>
<td>12.3%</td>
<td>5.0%</td>
</tr>
<tr>
<td><strong>Using population-based/census estimates only (n = 25)</strong></td>
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<td></td>
<td></td>
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<tr>
<td>Gay/bisexual males</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Childhood SA</td>
<td>4.1%</td>
<td>59.2%</td>
<td>21.0%</td>
</tr>
<tr>
<td>Adult SA</td>
<td>10.8%</td>
<td>15.0%</td>
<td>14.7%</td>
</tr>
<tr>
<td>Lifetime SA</td>
<td>20.0%</td>
<td>30.4%</td>
<td>26.2%</td>
</tr>
<tr>
<td>Intimate partner SA</td>
<td>9.5%</td>
<td>10.0%</td>
<td></td>
</tr>
<tr>
<td>Hate crime-related SA</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Lesbian/bisexual females</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Childhood SA</td>
<td>14.9%</td>
<td>44.8%</td>
<td>28.2%</td>
</tr>
<tr>
<td>Adult SA</td>
<td>22.2%</td>
<td>47.1%</td>
<td>–</td>
</tr>
<tr>
<td>Lifetime SA</td>
<td>15.6%</td>
<td>55.0%</td>
<td>35.4%</td>
</tr>
<tr>
<td>Intimate partner SA</td>
<td>11.4%</td>
<td>11.4%</td>
<td>–</td>
</tr>
<tr>
<td>Hate crime-related SA</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td><strong>Using non-population-based (community-based) estimates only (n = 50)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gay/bisexual males</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Childhood SA</td>
<td>13.3%</td>
<td>49.2%</td>
<td>33.5%</td>
</tr>
<tr>
<td>Adult SA</td>
<td>11.6%</td>
<td>44.7%</td>
<td>13.0%</td>
</tr>
<tr>
<td>Lifetime SA</td>
<td>11.8%</td>
<td>54.0%</td>
<td>34.8%</td>
</tr>
<tr>
<td>Intimate partner SA</td>
<td>10.0%</td>
<td>57.0%</td>
<td>13.0%</td>
</tr>
<tr>
<td>Hate crime-related SA</td>
<td>3.0%</td>
<td>19.8%</td>
<td>10.0%</td>
</tr>
<tr>
<td>Lesbian/bisexual females</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Childhood SA</td>
<td>21.0%</td>
<td>76.0%</td>
<td>38.5%</td>
</tr>
<tr>
<td>Adult SA</td>
<td>11.3%</td>
<td>53.2%</td>
<td>24.0%</td>
</tr>
<tr>
<td>Lifetime SA</td>
<td>24.0%</td>
<td>85.0%</td>
<td>45.8%</td>
</tr>
<tr>
<td>Intimate partner SA</td>
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<td>45.0%</td>
<td>12.0%</td>
</tr>
<tr>
<td>Hate crime-related SA</td>
<td>1.0%</td>
<td>12.3%</td>
<td>5.0%</td>
</tr>
</tbody>
</table>

* Median not calculated where <3 studies available.

overestimate it. Additional research that clarifies and ultimately improves accurate detection of sexual assault victimization among GLB people would benefit the field.

We can offer several observations about this body of literature that may benefit future research. First, there were some studies excluded from this review because they grouped GLB people together, yielding estimates that are not comparable to those reported for the general population that are almost always stratified by gender. An empirically based argument for grouping or segregating data based on gender, or sex, would benefit the field. Similarly, because bisexual people appear to experience less of particular forms of discrimination than gay and lesbian people (Herek, 2009), there may be differences in the prevalence of sexual violence experienced by lesbian versus bisexual women and gay versus bisexual men. Therefore, future studies in this area should also disaggregate and present separately data for lesbians, gays, and bisexuals.

Second, the studies on CSA outnumbered the studies on LSA by more than twofold. Additional and more rigorous research on the CSA of GLB people is of critical importance, but the relative dearth of information about adult experiences of sexual assault and the impact of sexual assault across the life-course should be considered. Third, a greater proportion of studies involving GB men than LB women used population-based methods, tended to include larger sample sizes, and therefore to have better external validity. This disparity in sexual violence research should be addressed; funding agencies with research agendas that include violence prevention are urged to consider prioritizing research on LB women. Fourth, it is a substantial limitation of the existing literature that few studies assessed the sex, gender, or sexual orientation of the perpetrator of the sexual violence against the GLB victims. This is perhaps particularly problematic with regard to IPSA (Waldner-Haugrud & Gratch, 1997). It cannot be assumed that the perpetrator of the IPSA was a GLB partner; it is possible that the majority of GLB individuals reporting lifetime IPSA were victimized by an opposite-sex partner. Future studies of sexual assault perpetration against GLB people, and studies of IPSA in particular, should attempt to determine the perpetrator sex or gender and sexual orientation. Moreover, we note that IPSA may be particularly difficult to detect; respondents may more readily report stranger- or family-perpetrated sexual assaults, but systematically underreport sexual assault perpetrated by intimates for two reasons: (a) they may be more fearful of the repercussions of reporting this form of abuse and (b) individuals may not perceive unwanted sexual contact with an intimate partner as coercive as consistently as they might unwanted sexual contact with a stranger or family member. However, there are several valid, reliable measures for assessing IPSA available to researchers, including the revised version of the Conflict Tactics Scale, the Index of Spouse Abuse, and the Tactics to Obtain Sex scale (Camilleri, Quinsey, & Tapscott, 2009; Hudson & McIntosh, 1981; Straus, Hamby, Boney-McCoy, & Sugarman, 1996). Finally, there were a handful of studies that were excluded from this review because they focused on a narrow or highly specific subset of sexual violence victimizations; for example, sexual abuse perpetrated by a family member or friend of the family. Although the findings from these studies contribute to the knowledge base as a whole, the practical implications of their findings are limited.

Limitations
This review is subject to several limitations. First, we do not present a direct comparison of the prevalence of sexual assault against GLB populations to the prevalence against heterosexuals. Few of the articles included in this review included non-GLB participants in their studies, and the majority of these were among adolescents, limiting the availability of directly...
comparable estimates for adults in particular. Additional studies that simultaneously assess sexual violence victimization for GB, LB, and heterosexual populations are needed. Second, we do not present data on the prevalence of sexual violence against transgender people. This review was focused on sexual orientation, not gender identity, so it was beyond the scope. However, we wish to stress the importance of additional research that investigates sexual violence victimization of transgender people, given their elevated risk of violence victimization overall (Stotzer, 2009). Third, we selected to accept uncritically the descriptions of sampling methodologies and estimates put forth by the authors of the underlying 71 articles that we reviewed, with the caveat that we excluded from the review any study that reported a response rate $\leq 30\%$. There were advantages and drawbacks to this approach. While we were able to take a broad inventory of the sexual violence research available and assess patterns in the conduct of this research itself, our summary presentation of the estimates reported in the literature is only as accurate as the underlying studies upon which it is based. Our stratification of studies into probability or census versus non-probability studies is intended to provide readers with a starting point for assessing the nature and quality of the available literature. Improving the rigor of sexual violence research in general, and studies of GLB sexual violence victimization specifically, is a worthy goal. Finally, while we considered the possibility of performing a meta-analysis with the available prevalence estimates, we determined that the data were not of sufficient quality for such a calculation; the definition of sexual assault varied across studies, there was diversity in the types of studies that were conducted, and the rigor of the underlying studies was inconsistent. As the literature on sexual violence against GLB people expands, a meta-analysis may become a possibility.

Implications for Practice, Policy, and Research

- Practitioners who work with GLB clients or patients should be aware that the prevalence of sexual assault victimization among this population is high; trauma-informed practice is critical.
- Program planners who are developing federal, state, or local plans for the primary prevention of sexual violence should consider the GLB population vulnerable to sexual violence victimization.
- Continued advocacy is needed to change oppressive social norms in our culture that support violence against GLB people, including homophobia and the use of violence to control others.
- Federal funding is needed to develop, implement, and evaluate primary and secondary sexual violence prevention programs that will benefit GLB people.
- Research that directly compares sexual violence victimization among GLB and heterosexual people is needed in order to confirm whether GLB people are at increased risk.
- Research that explains why population-based studies tend to find lower self-reported rates of sexual violence victimization among GLB people as compared to convenience sample studies would benefit the field and potentially improve methodology.
- Research that clarifies the relationship between victim and perpetrator in instances of sexual violence against GLB people would helpfully guide program planning.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interests with respect to the authorship and/or publication of this article.

Funding

The author(s) received no financial support for the research and/or authorship of this article.

References


Bios

Emily F. Rothman, ScD, is an associate professor in the Department of Community Health Sciences at the Boston University School of Public Health. She has been conducting violence research since 1998. Her current research interests include the intersection of underage alcohol use and dating abuse perpetration. She is a former battered women’s shelter advocate, rape crisis hotline listener, and batterer intervention counselor.

Allyson L. Baughman, MPH, is a program manager in the Department of Community Health Sciences at the Boston University School of Public Health (BUSPH). She earned her master’s degree from BUSPH in 2007. Her primary research interest is the physical environment and health.

Deinera Exner, MPH, is a doctoral student in the Department of Human Development at Cornell University. She earned her master’s degree from BUSPH in 2009. Her primary research interest is teen dating violence.