

Sexual Minority Disparities in Interpersonal Violence and Co-occurring Disorders Among Women

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Presenter Disclosures

Sherry Lipsky, PhD, MPH

The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

No relationships to disclose

Sexual Minority Health

Healthy People 2020 and Institute of Medicine report on LGBT health stress need for research on alcohol use, violence, and other social influences affecting LGBT health



Why Sexual Minorities?

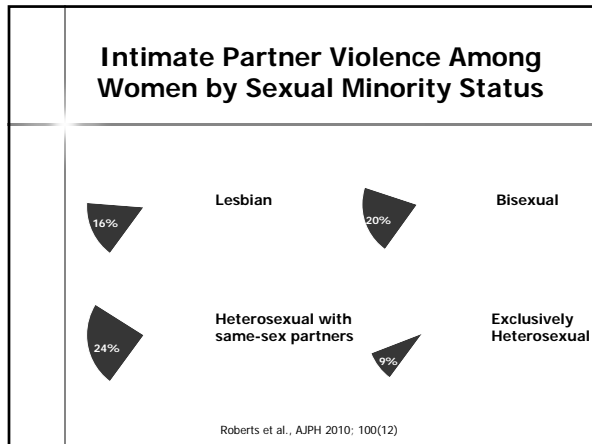
- ❑ Sexual minorities susceptible to stigma-related stressors ("minority stress")
 - External Factors
 - ❖ Stigma/Discrimination/Prejudice
 - Internal processes
 - ❖ Expectations of rejection, internalized homophobia
 - ❖ Maladaptive coping
 - ❖ Emotion dysregulation
 - Other Social Factors
 - ❖ Social isolation/Low social support
 - ❖ Social disadvantage
- ❑ Stressors increases risk for mental health problems (Meyer, 2003)
- ❑ Internal processes may mediate relationship between external factors and psychopathology (Hatzenbuehler, 2009)

Sexual Minority Health Among Women

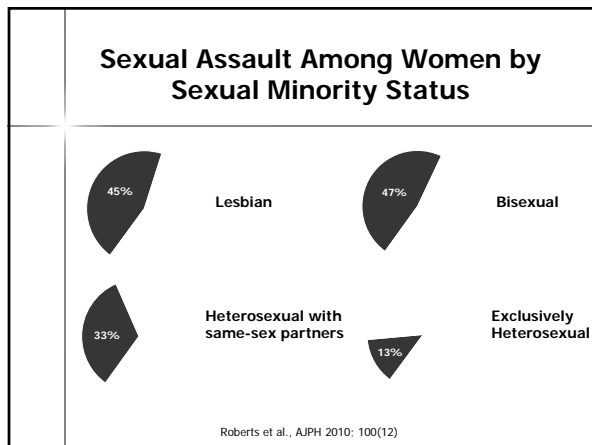
- ❑ Elevated rates of
 - Interpersonal violence (Roberts et al., 2010)
 - Hazardous drinking/AUD (Cochran & Mays, 2000; Wilsnack et al., 2008)
 - Psychiatric disorders (Bostwick et al., 2010; Cochran et al., 2003; Roberts et al., 2010)
- ❑ ? Increased risk of co-occurring psychiatric disorders (Cochran et al., 2003)

Intimate Partner Violence

- ❑ IPV likely functions as an acute or chronic stressor
 - ↑ PTSD, depression, PTSD/depression (Coker et al., 2002; Creamer et al., 2005; Golding, 1999; Kessler et al., 1995; Lipsky et al., 2005)
 - ↑ AUD (Coker et al., 2002; Golding, 1999)
- ❑ IPV more than twice as likely to occur among sexual minority women (Roberts et al., 2010)



- ### Sexual Assault
- One of the most severe of traumatic experiences (Kessler et al., 1995)
 - May cause long-term negative outcomes:
 - PTSD, depression, and generalized anxiety (Campbell et al., 2009; Temple et al., 2007; Clum et al., 2000)
 - Co-occurring PTSD & depression or problem drinking (Taft et al., 2009)
 - Alcohol use problems/problem drinking (Ullman et al., 2005)
 - 2-3 times more likely among sexual minority women (Roberts et al., 2010)



Mood & Anxiety Disorders Among Women by Sexual Minority Status

	Any Lifetime Mood Disorder Odds Ratio (95% CI) ¹	Any Lifetime Anxiety Disorder Odds Ratio (95% CI) ¹
Sexual Identity		
Lesbian	1.5 (1.01, 2.3)	1.4 (0.9, 2.1)
Bisexual	2.6 (1.8, 3.8)	2.7 (1.8, 4.0)
Heterosexual	Reference	Reference
Lifetime Sexual Partners		
Only females	0.6 (0.4, 0.9)	0.6 (0.4, 1.0)
Females & males	2.3 (1.8, 2.9)	2.0 (1.5, 2.5)
Only males	Reference	Reference

¹ Adjusted for race, age, educational status, employment status, marital status, and health insurance
Adapted from Bostwick et al., AJPH 2009; 99(10)

Past Year Heavy Drinking and Alcohol Dependence Among Women by Sexual Minority Status

	Past Year Heavy Drinking Odds Ratio (95% CI) ¹	Past Year Alcohol Dependence Odds Ratio (95% CI) ¹
Sexual Identity		
Lesbian	1.6 (0.9, 2.9)	3.6 (1.8, 7.3)
Bisexual	1.6 (1.0, 2.6)	2.9 (1.6, 5.5)
Heterosexual	Reference	Reference
Lifetime Sexual Partners		
Only females	1.7 (0.9, 3.4)	1.3 (0.5, 3.1)
Females & males	1.8 (1.3, 2.4)	2.7 (1.7, 4.1)
Only males	Reference	Reference

¹ Adjusted for race, age, education, personal income, employment, relationship status, health insurance, geographic location, MSA, age at alcohol onset, and family history of substance use problems.
Adapted from McCabe et al., Addiction 2009; 104.

Past Year Co-Occurring Disorders¹ Among Women by Sexual Minority Status

	Lesbian/ Bisexual %	Heterosexual %	Odds ratio (95% CI) ²
At Least 1 Disorder	43.7	24.6	1.86 (0.75–4.57)
2 or More Disorders	23.5	7.7	2.88 (1.02–8.15)

¹ Major depression, generalized anxiety disorder, panic disorder, alcohol dependence, other drug dependence
² Adjusted for age, level of education, relationship status (married/cohabiting vs. not), and race
Adapted from Cochran et al., J Consulting Clinical Psychology, 2003; 71(1)

	Co-Occurring Alcohol Use and Psychiatric Disorders
	<ul style="list-style-type: none"> <input type="checkbox"/> Psychiatric comorbidity <ul style="list-style-type: none"> ➢ More severe clinical course than AUD or another psychiatric disorder alone (Kessler, 2004; Najavits et al., 1997) ➢ Greater public health burden due to increased treatment utilization (Kessler et al., 1996)

	Study Objective
	Examine the relationship between adult onset co-occurring alcohol use and mood or anxiety disorders and adult onset traumatic IPV or sexual assault by sexual minority status

	Study Methods
	<ul style="list-style-type: none"> <input type="checkbox"/> National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) <input type="checkbox"/> Household survey of civilian, noninstitutionalized adult population in U.S. <input type="checkbox"/> Wave 1 conducted in 2001 – 2002 <input type="checkbox"/> Wave 2 in 2004 – 2005: respondents from Wave 1 re-interviewed <input type="checkbox"/> One adult randomly selected for interview in each household

	Measures: Sexual Orientation and Behavior
	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Sexual orientation</i>: Respondents were asked 'Which of the categories on the card best describes you': heterosexual, bisexual, lesbian or gay, or not sure <input type="checkbox"/> <i>Sexual behavior</i>: Respondents were asked about the sex of their partners over their lifetime: only males, only females, or both

	Measures: Potentially Traumatic Experiences
	<ul style="list-style-type: none"> <input type="checkbox"/> From a list of 'potentially traumatic experiences' designed to measure PTSD <input type="checkbox"/> <i>IPV</i>: Physically attacked or badly beaten up or injured by spouse or partner in lifetime (18+ years of age at first event) <input type="checkbox"/> <i>Sexual Assault</i>: Assaulted, molested, raped or experienced unwanted sex (18+)

	Measures: Alcohol Use and Psychiatric Disorders
	<ul style="list-style-type: none"> <input type="checkbox"/> Adult onset alcohol abuse and/or dependence (AUD) and <ul style="list-style-type: none"> ➢ Depressive disorder or ➢ Anxiety disorder <input type="checkbox"/> A co-occurring disorder (COD) is defined as having adult onset of alcohol use and mood or anxiety disorder during one's lifetime <input type="checkbox"/> Based on the Alcohol Use Disorder and Associated Disabilities Schedule – Diagnostic and Statistical Manual of Mental Disorders – Fourth Edition (AUDADIS-IV)

Sample Characteristics: Sexual Orientation and Behavior	
Sexual orientation (Current)	N (%) ¹
Heterosexual	19,489 (98.5)
Bisexual	161 (0.8)
Lesbian	145 (0.7)
Sexual behavior (Lifetime partners)	
Males only	18,904 (97.0)
Both	445 (2.1)
Females only	177 (0.9)

¹ Unweighted n, weighted percent

Sample Characteristics: Co-Occurring AUD & Depressive Disorders			
	AUD N (%) ¹	Depressive Disorder N (%) ¹	Both N (%) ¹
Sexual Orientation			
Heterosexual	1839 (10.5)	3151 (17.1)	1212 (6.9)
Bisexual	29 (29.0)	24 (19.5)	16 (14.0)
Lesbian	37 (31.0)	19 (12.7)	20 (23.7)
Lifetime Sex Partners			
Males only	1756 (10.4)	3077 (17.2)	1172 (6.9)
Both	98 (30.2)	56 (14.1)	68 (23.4)
Females only	42 (23.7)	14 (7.7)	8 (6.1)

¹ Unweighted n, weighted row percent

Sample Characteristics: Co-Occurring AUD & Anxiety Disorders			
	AUD N (%) ¹	Anxiety Disorder N (%) ¹	Both N (%) ¹
Sexual Orientation			
Heterosexual	1489 (9.6)	3322 (20.2)	1025 (6.7)
Bisexual	22 (21.3)	28 (25.3)	23 (25.3)
Lesbian	28 (30.8)	16 (14.6)	16 (20.3)
Lifetime Sex Partners			
Males only	1426 (9.5)	3426 (20.2)	988 (6.6)
Both	70 (24.9)	63 (19.6)	62 (26.5)
Females only	36 (21.5)	17 (11.5)	13 (9.4)

¹ Unweighted n, weighted row percent

Co-Occurring Alcohol Use and Psychiatric Disorders Among Women by Traumatic IPV				
	Depressive Disorders		Anxiety Disorders	
	IPV %	No IPV %	IPV %	No IPV %
Neither diagnosis	39.7	67.4	33.2	65.7
AUD	15.2	10.3	13.1	9.5
Psychiatric disorder	25.9	16.3	34.8	19.0
Both	19.2	6.0	18.9	5.9

Chi-square p<.001 Chi-square p<.001

Co-Occurring Alcohol Use and Psychiatric Disorders Among Women by Traumatic SA				
	Depressive Disorders		Anxiety Disorders	
	SA %	No SA %	SA %	No SA %
Neither diagnosis	40.1	68.6	37.9	66.2
AUD	13.6	10.3	13.5	9.3
Psychiatric disorder	28.1	15.5	31.2	18.9
Both	18.2	5.5	17.5	5.6

Chi-square p<.001 Chi-square p<.001

Co-Occurring Alcohol Use and Depressive Disorders Among Women: Sexual Orientation & IPV	
<input type="checkbox"/> COD by IPV ¹ <ul style="list-style-type: none"> ➢ Heterosexual women: 19% vs. 6% ➢ Bisexual women: 36% vs. 9% ➢ Lesbian women: 17% vs. 25% (ns) 	
<p>¹ Significant difference (p<.05) <i>within sexual orientation group</i> by IPV and diagnostic category (neither disorder, alcohol only, depressive disorder only, both disorders) unless otherwise noted.</p>	

Co-Occurring Alcohol Use and Depressive Disorders Among Women: Lifetime Sex Partners & IPV	
<p>☐ COD by IPV¹</p> <ul style="list-style-type: none"> ➤ Male partners only: <ul style="list-style-type: none"> ❖ 19% vs. 6% ➤ Both male & female partners: <ul style="list-style-type: none"> ❖ 33% vs. 21% (ns) ➤ Female partners only: <ul style="list-style-type: none"> ❖ 0% vs. 6% (ns) <p>¹ Significant difference (p<.05) within sexual partners group by IPV and diagnostic category (neither disorder, alcohol only, depressive disorder only, both disorders) unless otherwise noted.</p>	

Co-Occurring Alcohol Use and Depressive Disorders Among Women: Sexual Orientation & SA	
<p>☐ COD by Sexual Assault¹</p> <ul style="list-style-type: none"> ➤ Heterosexual women: 18% vs. 5% ➤ Bisexual women: 27% vs. 7% ➤ Lesbian women: 29% vs. 20% (ns) <p>¹ Significant difference (p<.05) within sexual orientation group by SA and diagnostic category (neither disorder, alcohol only, depressive disorder only, both disorders) unless otherwise noted.</p>	

Co-Occurring Alcohol Use and Depressive Disorders Among Women: Lifetime Sex Partners & SA	
<p>☐ COD by Sexual Assault</p> <ul style="list-style-type: none"> ➤ Male partners only: <ul style="list-style-type: none"> ❖ 18% vs. 5% ➤ Both male & female partners: <ul style="list-style-type: none"> ❖ 26% vs. 21% (ns) ➤ Female partners only: <ul style="list-style-type: none"> ❖ 33% vs. 4% <p>Significant difference (p<.05) within sexual partners group by SA and diagnostic category (neither disorder, alcohol only, depressive disorder only, both disorders) unless otherwise noted.</p>	

	Heterosexual	Bisexual	Lesbian
	%	%	%
Neither diagnosis	40.4	2.7	36.5
AUD	14.8	24.6	35.6
Depressive disorder			
	26.0	36.4	10.5
Both	18.8	36.3	17.4

Chi-square p<.05

Co-Occurring Alcohol Use and Depressive Disorders Among Women <i>with</i> Traumatic IPV, by Lifetime Sex Partners			
	Males		Females
	Only	Both	Only
	%	%	%
Neither diagnosis	40.5	23.6	61.4
AUD	14.7	23.8	38.6
Depressive disorder	26.0	19.7	0
Both	18.7	32.9	0

Chi-square p<.05

Co-Occurring Alcohol Use and Depressive Disorders Among Women <i>with</i> Traumatic SA, by Sexual Orientation			
	Heterosexual	Bisexual	Lesbian
	%	%	%
Neither diagnosis	40.6	25.2	29.7
AUD	13.3	22.2	28.0
Depressive disorder			
	28.4	25.6	13.7
Both	17.7	27.1	28.6

Chi-square p<.05

Co-Occurring Alcohol Use and Depressive Disorders Among Women <i>with</i> Traumatic SA, by Lifetime Sex Partners			
	Males Only	Both	Females Only
	%	%	%
Neither diagnosis	40.7	29.6	26.1
AUD	12.9	27.1	34.7
Depressive disorder	28.4	16.9	6.3
Both	17.9	26.4	33.0

Chi-square $p < .001$

Summary - I
<ul style="list-style-type: none"> <input type="checkbox"/> COD greater among bisexual- & lesbian-identified women and women with lifetime male and female partners <input type="checkbox"/> Women experiencing traumatic IPV or SA more likely to have psychiatric disorder or COD <input type="checkbox"/> Increased COD with: <ul style="list-style-type: none"> ➢ IPV and SA among heterosexual & bisexual women ➢ IPV among women with male partners only ➢ SA among women with male partners only & female partners only

Summary - II
<ul style="list-style-type: none"> <input type="checkbox"/> Among women <i>with</i> IPV, highest prevalence of COD among bisexual-identified women & women with male & female partners <input type="checkbox"/> Among women <i>with</i> SA, highest prevalence of COD among bisexual- & lesbian-identified women & women with male & female partners or female partners only

Conclusions
<ul style="list-style-type: none"> <input type="checkbox"/> COD and IPV/SA 'associated' – will require longitudinal data to understand causal relationship <input type="checkbox"/> COD prevalence and associations with IPV & SA vary depending on sexual minority status measures

Implications
<ul style="list-style-type: none"> <input type="checkbox"/> Identifying risks associated with poor outcomes in an environment of violence and trauma can inform the development of prevention and intervention efforts <input type="checkbox"/> Strengthen program and policy recommendations for mental health screening & intervention among sexual minority women <input type="checkbox"/> Focus on the development of gender and sexual minority-specific and sensitive violence prevention programs

Acknowledgements
<p>The authors would like to thank Qian Qiu, MBA and Catherine Wright, MPH for their work in the preparation of the data.</p>

Supplementary Slides
Co-Occurring AUD and Anxiety Disorders

Co-Occurring Alcohol Use and Anxiety Disorders Among Women: Sexual Orientation & IPV
<p>□ COD by IPV:</p> <ul style="list-style-type: none"> ➤ Heterosexual women: 19% vs. 6% ➤ Bisexual women: 40% vs. 23% (p=.05) ➤ Lesbian women: 16% vs. 21% (ns) <p>Significant difference (p<.05) within sexual orientation group by IPV and diagnostic category (neither disorder, alcohol only, anxiety disorder only, both disorders) unless otherwise noted.</p>

Co-Occurring Alcohol Use and Anxiety Disorders Among Women: Lifetime Sex Partners & IPV
<p>□ COD by IPV:</p> <ul style="list-style-type: none"> ➤ Male partners only: <ul style="list-style-type: none"> ❖ 18% vs. 6% ➤ Both male & female partners: <ul style="list-style-type: none"> ❖ 36% vs. 24% ➤ Female partners only: <ul style="list-style-type: none"> ❖ 5% vs. 10% (ns) <p>Significant difference (p<.05) within sexual partners group by IPV and diagnostic category (neither disorder, alcohol only, anxiety disorder only, both disorders) unless otherwise noted.</p>

Co-Occurring Alcohol Use and Anxiety Disorders Among Women: Sexual Orientation & SA
<p>□ COD by Sexual Assault:</p> <ul style="list-style-type: none"> ➤ Heterosexual women: 17% vs. 6% ➤ Bisexual women: 35% vs. 20% ➤ Lesbian women: 28% vs. 15% (ns) <p>Significant difference (p<.05) within sexual orientation group by SA and diagnostic category (neither disorder, alcohol only, anxiety disorder only, both disorders) unless otherwise noted.</p>

Co-Occurring Alcohol Use and Anxiety Disorders Among Women: Lifetime Sex Partners & SA
<p>□ COD by Sexual Assault:</p> <ul style="list-style-type: none"> ➤ Male partners only: <ul style="list-style-type: none"> ❖ 17% vs. 5% ➤ Both male & female partners: <ul style="list-style-type: none"> ❖ 28% vs. 25% ➤ Female partners only: <ul style="list-style-type: none"> ❖ 16% vs. 9% (ns) <p>Significant difference (p<.05) within sexual partners group by SA and diagnostic category (neither disorder, alcohol only, anxiety disorder only, both disorders) unless otherwise noted.</p>

Co-Occurring Alcohol Use and Anxiety Disorders Among Women <i>with</i> Traumatic IPV, by Sexual Orientation																				
<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Heterosexual %</th> <th style="text-align: center;">Bisexual %</th> <th style="text-align: center;">Lesbian %</th> </tr> </thead> <tbody> <tr> <td>Neither diagnosis</td> <td style="text-align: center;">33.7</td> <td style="text-align: center;">0</td> <td style="text-align: center;">27.7</td> </tr> <tr> <td>AUD</td> <td style="text-align: center;">13.0</td> <td style="text-align: center;">13.8</td> <td style="text-align: center;">30.0</td> </tr> <tr> <td>Anxiety disorder</td> <td style="text-align: center;">34.7</td> <td style="text-align: center;">46.6</td> <td style="text-align: center;">26.3</td> </tr> <tr> <td>Both</td> <td style="text-align: center;">18.6</td> <td style="text-align: center;">39.7</td> <td style="text-align: center;">16.0</td> </tr> </tbody> </table> <p>Chi-square p: ns</p>		Heterosexual %	Bisexual %	Lesbian %	Neither diagnosis	33.7	0	27.7	AUD	13.0	13.8	30.0	Anxiety disorder	34.7	46.6	26.3	Both	18.6	39.7	16.0
	Heterosexual %	Bisexual %	Lesbian %																	
Neither diagnosis	33.7	0	27.7																	
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Both	18.6	39.7	16.0																	

Co-Occurring Alcohol Use and Anxiety Disorders Among Women <i>with</i> Traumatic IPV, by Lifetime Sex Partners			
	Males Only %	Both %	Females Only %
Neither diagnosis	34.1	16.5	36.0
AUD	12.9	15.7	33.6
Anxiety disorder	34.7	31.6	25.3
Both	18.2	36.1	5.1
Chi-square p<.05			

Co-Occurring Alcohol Use and Anxiety Disorders Among Women <i>with</i> Traumatic SA, by Sexual Orientation			
	Heterosexual %	Bisexual %	Lesbian %
Neither diagnosis	38.9	11.3	18.5
AUD	13.2	16.6	29.4
Anxiety disorder	31.2	36.8	24.3
Both	16.8	35.3	27.8
Chi-square p<.01			

Co-Occurring Alcohol Use and Anxiety Disorders Among Women <i>with</i> Traumatic SA, by Lifetime Sex Partners			
	Males Only %	Both %	Females Only %
Neither diagnosis	38.6	18.1	37.3
AUD	13.1	21.1	40.0
Anxiety disorder	31.2	32.6	6.4
Both	17.1	28.1	16.3
Chi-Square p<.001			