

2009

Characteristics of seriously heavy binge drinking women: A community based study from St. Louis

Veena A. Satyanarayana

Washington University School of Medicine in St. Louis

Susan Bradford

Washington University School of Medicine in St. Louis

Arbi Ben Abdallah

Washington University School of Medicine in St. Louis

Linda B. Cottler

Washington University School of Medicine in St. Louis

Follow this and additional works at: <http://digitalcommons.wustl.edu/guzeposter2009>



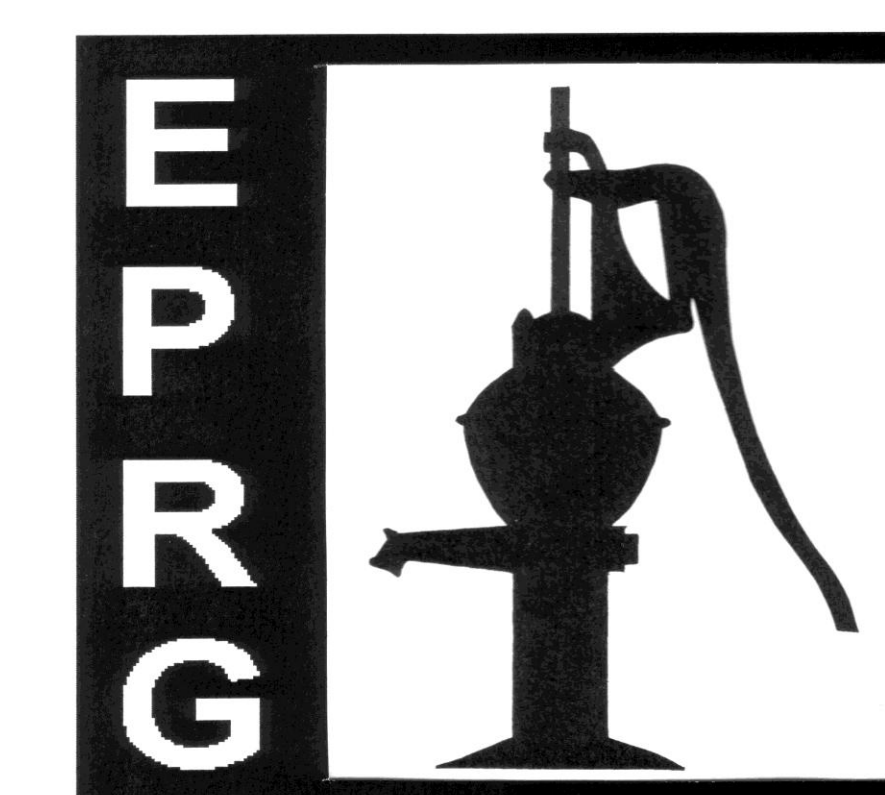
Part of the [Medicine and Health Sciences Commons](#)

Recommended Citation

Satyanarayana, Veena A.; Bradford, Susan; Abdallah, Arbi Ben; and Cottler, Linda B., "Characteristics of seriously heavy binge drinking women: A community based study from St. Louis" (2009). *Posters*. Paper 27 Samuel B. Guze Symposium on Alcoholism.
<http://digitalcommons.wustl.edu/guzeposter2009/27>

This Poster is brought to you for free and open access by the 2009: Translating Basic Science Findings to Guide Prevention Efforts at Digital Commons@Becker. It has been accepted for inclusion in Posters by an authorized administrator of Digital Commons@Becker. For more information, please contact engesz@wustl.edu.

Characteristics of Seriously Heavy Binge Drinking Women: A Community Based Study from St. Louis



Veena A. Satyanarayana PhD, Susan Bradford BSEd, Arbi Ben Abdallah DES, Linda B. Cottler PhD, MPH,

Washington University School of Medicine, Epidemiology and Prevention Research Group, St. Louis, MO, USA

Abstract

Background: Binge drinking is an important public health problem in the United States, and is associated with co-morbid psychiatric disorders and HIV risk behaviors.

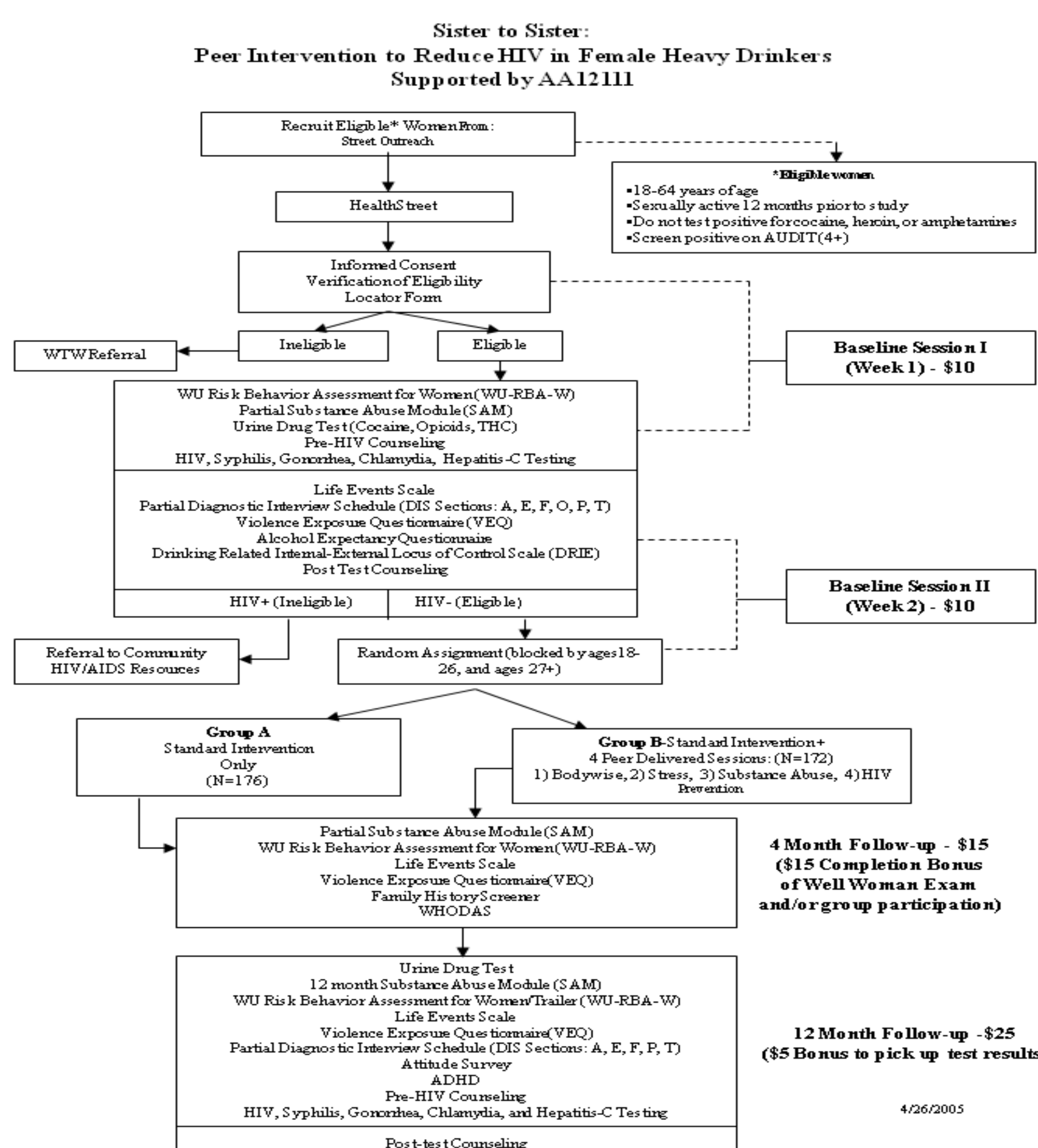
Methods: The data for this study come from a NIAAA funded two arm intervention study to reduce HIV risk behaviors among female heavy drinkers. Eligible women [18+ years old, sexually active 12 months prior to study and screened positive on the AUDIT (score=4+)] were recruited from street outreach and HealthStreet. Participants (N=348) were assessed on the Computerized Substance Abuse Module (C-SAM), Washington University Risk Behavior Assessment for Women (WU-RBA-W), the Computerized Diagnostic Interview Schedule (C-DIS), Alcohol Expectancy Questionnaire (AEQ) and Drinking related Internal-External Locus of Control Scale (DRIE). Seriously heavy binge drinking was assessed by: "Have you more than once drunk more than 20 drinks in one day—that would be about a fifth of liquor, or 3 bottles of wine, or as much as 3 six-packs of beer?".

Results: Results indicated that over one-third of the sample (N=134; 39%) reported seriously heavy binge drinking in their lifetime. Binge drinking women were less likely to be African American ($X^2=11.05^{***}$). They were more likely to have a positive arrest history ($X^2=11.54^{***}$) and to consider themselves homeless ($X^2=4.16^*$), compared to non-binge drinking women. Binge drinking women were more likely to meet lifetime criteria for alcohol abuse and/or dependence ($X^2=26.38^{***}$), cannabis abuse and/or dependence ($X^2=7.74^{**}$), and amphetamine abuse and/or dependence ($X^2=6.42^{**}$). While binge drinking women were more likely to trade sex ($X^2=10.32^{***}$) and not always use condoms ($X^2=5.52^*$), they did perceive that they had risky sex ($X^2=7.24^{**}$) and alcohol behaviors ($X^2=6.53^{**}$) that needed to be changed. In addition, women with binge drinking had higher rates of psychopathology: Post Traumatic Stress Disorder ($X^2=10.91^{***}$), Major Depressive Disorder ($X^2=4.30^*$) Antisocial Personality Disorder ($X^2=24.26^{***}$) and Conduct Disorder ($X^2=28.53^{***}$). They also reported less control over their drinking behavior ($t=2.16^*$) and more undesirable alcohol related expectancies ($t=3.59^{***}$), compared to non-binge drinking women. These findings indicate that women with binge drinking have a constellation of risk factors. The results therefore, have implications for developing community based preventive interventions for these women.

Aim

This analysis explored demographic factors, DSM-IV lifetime substance abuse/dependence, HIV risk behaviors and DSM-IV lifetime psychiatric disorders among women who endorsed seriously heavy binge drinking.

Methods



Sample

Drinking Status*	Definition	N	%
Binge Drinkers†	More than once had 20 or more drinks in a day-Lifetime	134	39%
Non-Binge Drinkers	Did not endorse the above behavior-Lifetime	214	61%

* Assessed on C-SAM

† 'Seriously heavy binge drinkers' and 'binge drinkers' will be used interchangeably

Demographic Data

Variables	Binge Drinkers (N=134)	Non-Binge Drinkers (N=214)	p Value
Age (Years)	32.72 (SD=8.87)	31.73 (SD=10.72)	0.37
Education (Years)	11.27 (SD=2.36)	11.52 (SD=2.27)	0.32
Worked Fulltime	66%	71%	0.34
African-American	65%	81%	0.0009
Never Married	68%	69%	0.81
Arrest History	65%	46%	0.0007
Homeless	33%	23%	0.04

HIV Risk Factors

Variables	Binge Drinkers (N=134)	Non-Binge Drinkers (N=214)	p Value
Trade Sex- Lifetime	43%	27%	0.0013
Trade Sex-Past 12 Months	47%	34%	0.15
Multiple Partners	39%	32%	0.25
Always used Condoms-Past 4 Months	10%	20%	0.01
Had Sex under the Influence of Alcohol/Drugs	77%	70%	0.19
Perceived Risky Sex Behaviors	43%	29%	0.007
Perceived Risky Drug Use	31%	22%	0.056
Perceived Risky Alcohol Use	54%	40%	0.01

Control over Drinking

Variable	Binge Drinkers (N=134)	Non-Binge Drinkers (N=214)	p Value
Control over Drinking	6.93 (SD=2.54)	7.53 (SD=2.44)	0.03

Range: 0-10; Higher DRIE scores indicate greater control over drinking behavior

Psychopathology: DSM-IV Lifetime

Variables	Binge Drinkers (N=134)	Non-Binge Drinkers (N=214)	p Value
Post Traumatic Stress Disorder	37%	21%	0.001
Major Depressive Disorder	49%	38%	0.03
Antisocial Personality Disorder	34%	12%	<0.0001
Conduct Disorder	35%	12%	<0.0001

Alcohol Expectancy

Variable	Binge Drinkers (N=134)	Non-Binge Drinkers (N=214)	p Value
Alcohol Expectancies	161.34 (SD=49.48)	142.09 (48.05)	0.0004

Range: 48-240; Higher AEQ scores indicate undesirable alcohol expectancies

Substance Abuse/Dependence: DSM-IV Lifetime

Variables (Substances used >5 times)	Binge Drinkers	Non-Binge Drinkers	p Value
Alcohol Abuse /Dependence	93% (N=134)	69% (N=214)	<.0001
Cannabis Abuse /Dependence	59% (N=100)	41% (N=142)	0.0054
Amphetamine Abuse/Dependence	60% (N=43)	27% (N=22)	0.011
Opioid Abuse/ Dependence	55% (N=40)	44% (N=23)	0.37
Cocaine Abuse/ Dependence	92% (N=71)	88% (N=57)	0.48

Acknowledgements

- NIAAA AA12111, Sister to Sister Study: Peer Intervention to Reduce HIV in Female Heavy Drinkers (Linda B. Cottler, PhD, MPH, PI)
- Fogarty International Center ICOHRTA Training Program in Behavioral Disorders (Grant No. TW05811-08; VA Satyanarayana, Fellow; LB Cottler, PI)

Multivariate Logistic Regression

Variables	Final Model with Backward Selection			
	Beta	Beta	OR	CI
Intercept	-2.47	-2.04		
Age	-0.04			
African American	-0.64	-0.59	0.55	0.32-0.97
Arrest History	0.50	0.57	1.77	1.07-2.92
Homeless	-0.13			
Education	0.26			
DSM-IV Conduct Disorder	1.05	1.13	3.08	1.67-5.68
DSM-IV Major Depressive Disorder	-0.10			
DSM-IV Post Traumatic Stress Disorder	0.62	0.65	1.93	1.12-3.31
DSM-IV Alcohol Abuse/Dependence	1.22	1.37	3.95	1.89-8.24
DSM-IV Cannabis Abuse/Dependence	0.20			
DSM-IV Amphetamine Abuse/Dependence	1.47	1.47	4.37	1.65-11.53
Trade Sex- Lifetime	0.11			
Control over Drinking Behavior	-0.30			
Alcohol Expectancy Score	0.003			
Perceived Risky Sex Behaviors	0.24			
Perceived Risky Drinking Behaviors	0.12			

Conclusions

- Over one-third of the sample (39%) reported seriously heavy binge drinking in their lifetime
- Demographics: Binge Drinking women were less likely to be African American. They were more likely to have a positive arrest history and to consider themselves homeless
- Substance Abuse/Dependence: Binge drinkers were more likely than non-binge drinkers to meet DSM-IV criteria for lifetime Alcohol abuse/dependence, Cannabis abuse/dependence, and Amphetamine abuse/dependence
- HIV Risk Behaviors: While binge drinking women were more likely to trade sex and not always use condoms, they did perceive that they had risky sex and alcohol behaviors that needed to be changed
- Psychopathology: Binge drinkers compared to non-binge drinkers were also more likely to meet DSM-IV criteria for lifetime Post Traumatic Stress Disorder, Major Depressive Disorder, Antisocial Personality Disorder and Conduct Disorder
- Control over drinking and Alcohol Expectancies: Binge drinking women reported less control over their drinking behavior and worse alcohol related expectancies than non-binge drinking women
- The Multivariate Logistic Regression Model confirmed that non-African American women who reported a positive arrest history, met DSM-IV criteria for lifetime Conduct Disorder, Post Traumatic Stress Disorder, Alcohol abuse/dependence or Amphetamine abuse/dependence were significantly more likely to develop binge drinking
- These findings indicate that binge drinking women have a host of other risk factors: drug use, HIV and mental health related risk factors
- The study results have implications for identifying binge drinking women in the community and designing cost-effective alcohol and HIV preventive interventions that also address other risk factors: abuse and dependence to different drugs and co-morbid mental health problems