

## Sexual Behaviors, Substance Use, and Mood in a Cohort of Homeless Youth: Comparisons between Homeless Heterosexual and Sexual Minority Youth

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### Abstract

**Purpose:** To directly compare sexual behaviors, substance use, and mood in a cohort of homeless heterosexual and sexual minority youth.

**Methods:** Utilizing a retrospective chart review, self-reported sexual behaviors, substance use, and mood were documented in a cohort of homeless youth ages 15-25 years old, who were seen on a mobile clinic over a 2-year period in 2008 and 2009.

**Results:** Both homeless heterosexual and sexual minority youth engaged in high-risk sexual behaviors, used multiple substances, and had mood disturbances. There were no significant differences between heterosexual and sexual minority youth concerning percent sexually active, 1<sup>st</sup> sexual activity age 15 or younger, total number of sexual partners, sexually transmitted disease history, use of tobacco, use of marijuana, intravenous drug use, current mood, history of depression, history of use of a psychiatric medication, or history of suicidality.

**Conclusions:** Homelessness may be a more critical factor for these youth engaging in risky behaviors, and having poor mood, than sexual orientation per se.

**Keywords:** Homeless youth; Sexual minority youth; Sexual behaviors; Substance use; Mood

### Introduction

Homeless youth generally have significantly higher rates of risky sexual activity, substance use, and depressed mood compared to their non-homeless peers [1-12]. Sexual minority youth are over-represented in the homeless youth population compared to their numbers in the general population, comprising 20-40% of homeless youth, and most studies have found higher rates of risky sexual behaviors, use of substances, and depressed mood among homeless sexual minority youth compared to homeless heterosexual youth, likely due to issues of discrimination and marginalization stemming from their sexual minority status [13-16]. Based on these studies, homeless sexual minority youth are typically considered to require more intensive evaluation and support compared to their heterosexual peers, particularly concerning risky behaviors and low mood. However, there are few published studies directly comparing sexual behaviors, substance use, and mood between homeless heterosexual youth and homeless sexual minority youth [17-22]. More direct comparisons of homeless heterosexual and sexual minority youth, who are simultaneously receiving health services over the same time period, can lead to a better understanding of and improved interventions for, these youth.

The specific objectives of this study were to: 1) assess a variety of sexual behaviors, substance use, and mood, in a cohort of homeless heterosexual and sexual minority youth, and 2) directly compare sexual behaviors, substance use, and mood between homeless heterosexual and sexual minority youth receiving health care services in the same setting and over the same time period.

### Methods

A retrospective chart review was carried out on all charts of homeless youth seen on a mobile clinic in 2008 and 2009. All of the

patients whose charts were reviewed were currently homeless and living in and/or receiving services at a youth shelter. Data were collected on self-reported sexual orientation [23] (Figure 1), sexual behaviors, substance use, and mood. The original chart data were collected confidentially during the patient interview with either a physician or nurse practitioner.

This project was approved by the Stanford University Institutional Review Board.

### Data collection

Besides demographic data (Table 1), the following items were extracted from the charts:

- Sexual history. If sexually active, then: 1st sex  $\leq$ 15 years old; oral sex; anal sex; number sexual partners; sex with opposite sex if sexual minority; contraception; sexually transmitted infections; HIV counseling and testing; condom use; sex under the influence of alcohol or drugs.
- Substance use history: use of tobacco, alcohol, marijuana, other drugs, intravenous drug use

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**Received** February 27, 2013; **Accepted** March 27, 2013; **Published** March 29, 2013

**Citation:** Ammerman S, Chamberlain L, Kardatzke D (2013) Sexual Behaviors, Substance Use, and Mood in a Cohort of Homeless Youth: Comparisons between Homeless Heterosexual and Sexual Minority Youth. J Child Adolesc Behav 1: 103. doi:10.4172/2375-4494.1000103

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Sexual Orientation
Heterosexual Male: 97 (28%)
Heterosexual Female: 109 (32%)
Sexual Minority Male: 69 (21%)
Sexual Minority Female: 66 (19%)
Race/Ethnicity
White Hetero: 31%;
White Sexual Minority: 52%
Hispanic/Latino Hetero: 29%
Hispanic/Latino Sexual Minority: 19%
Asian Hetero: 23%
Asian Sexual Minority: 18%
African American Hetero: 10%
African American Sexual Minority: 6%
Mixed Race Hetero: 7%
Mixed Race Sexual Minority: 5%

**Table 1:** Patients Demographics: N = 341; Age Range 15-25 years; Average Age: 19.6 years (S.D. 1.5 years).

- Mood history: current mood; history of depression; history of using psychiatric medication; history of suicidality.

## Statistics

Chi-squared analyses were performed for dichotomous data and multiple response data that were not ordered, like race. The Cochran-Mantel-Haenszel Chi-squared analyses row mean test were performed for ordered response data with more than two categories.

## Results

There were a total of 341 charts reviewed. Of these 341 patients, 61% were heterosexual and 39% sexual minority. Of the sexual minority youth, 10% self-identified as bisexual and 7% as transgender. Age range of the youth was 15-25 years, with a mean age of 19.6 years. 49% of the patients were male and 51% female. See Table 1 for a breakdown of sexual orientation by gender and race/ethnicity.

See table 2 for specific statistical results concerning sexual activity, substance use, and mood.

There were no significant differences between heterosexual and sexual minority youth concerning the following:

- 1) percent sexually active
- 2) 1<sup>st</sup> sexual activity at age 15 or younger
- 3) total number of sexual partners
- 4) sexually transmitted infection history
- 5) use of tobacco
- 6) use of marijuana
- 7) intravenous drug abuse
- 8) current mood
- 9) history of depression
- 10) history of use of a psychiatric medication
- 11) history of suicidality

Females were significantly more likely than males to:

- 1) always use drugs while having sex, and

- 2) To state that having sex under the influence of drugs was better.

Males were significantly more likely than females to:

- 1) have a history of incarceration,
- 2) engage in oral sex,
- 3) engage in anal sex,
- 4) not have had HIV counseling and testing,
- 5) and not always use condoms.

Overall, homeless heterosexual youth were significantly more likely to:

- 1) occasionally use alcohol, and
- 2) sometimes use condoms.

Overall, homeless sexual minority youth were significantly more likely to:

- 1) engage in anal sex,
- 2) mostly use condoms, and
- 3) always use alcohol.

Of note were that 37% of sexual minority females and 18% of sexual minority males who self-identified as attracted to the same sex only or mostly, reported opposite-sex sexual experiences.

Additional analyses comparing the younger cohort (15-20 years of age) to the older (21-25 years of age) were also carried out. Significant differences (all  $P = 0.01$ ) were found in the following sexual behaviors and substance use, all demonstrating more frequent behaviors in the young adults: engaging in anal sex; total number of sexual partners; ever having an STD; and daily use of alcohol and other drugs.

## Discussion

This study found fewer differences in sexual behaviors, substance use, and mood disturbances among homeless heterosexual and sexual minority youth than has previously been reported. This is important because it demonstrates that although sexual minority youth are over-represented in the homeless youth population, this does not imply that sexual minority youth are significantly different than their heterosexual peers in engaging in risky behaviors or in having low mood. There were no significant differences concerning 1) first sexual activity at age 15 years or younger; 2) engaging in oral sex; 3) total number of sexual partners; 4) sexually transmitted disease history; 5) HIV counseling and testing history; 6) tobacco and marijuana use; 7) current mood; 8) history of depression; 9) history of using a psychiatric medication; or 10) history of suicidality.

Of note, females had significantly higher rates than males of always having sex under the influence of drugs. This may imply that these homeless females were using drugs because having sex was otherwise not enjoyable or entirely wanted, or they may have been exchanging sex for drugs [24], though the reasons for this were not explicitly documented in the charts.

The higher rates of certain risky sexual behaviors and daily alcohol and other drug use in the older cohort compared to the younger is not surprising, given that many risk behaviors typically increase with age during the teen/young adult years.

Two limitations of this study are 1) it was a convenience sample of

ITEM	HETEROSEXUAL	SEXUAL MINORITY	STATISTICAL SIGNIFICANCE
Currently Sexually Active	87%	96%	P=0.04.
1 <sup>st</sup> Sexual Activity ≤ 15 Years Of Age	48%	52%	NS
Engage in Oral Sex	70%	70%	NS
Engage in Anal Sex	25%	49%	P = 0.0001
Total number of Sexual Partners: Range 1-10+	1: 3% 5: 23% *** 10+: 3%	1: 1% 5: 32% *** 10+: 4%	***NS. %s gradually increased from 1 to 5, and then gradually decreased from 6-10 in both groups.
Ever had an STD	22%	19%	NS
Ever had HIV Counseling/ Testing	63%	64%	NS
Use Condoms	NEVER: 10% SOMETIMES: 40% MOSTLY: 20% ALWAYS: 30%	NEVER: 18% SOMETIMES: 24% MOSTLY: 36% ALWAYS: 22%	Greater condom use for heterosexual youth: p=0.01.
Sex Under the Influence of Drugs	NEVER: 25% OCCASIONALLY: 47% ALWAYS: 28%	NEVER: 22% OCCASIONALLY: 52% ALWAYS: 26%	NS. Note: For Always, female 34% vs. male 19% (p=0.01).
Tobacco QD	23%	32%	NS, except for daily alcohol use sexual minority (p=0.0005), and daily other drug use hetero (p=0.04).
Alcohol QD	19%	41%	
Marijuana QD	16%	26%	
Other Drugs QD	22%	11%	
Ivda (Ever)	1%	1%	
Current mood: Range 1 (Depressed All the time) to 10 (Happy all the time)	1: 2% 5: 36% *** 10: 3%	1: 3% 5: 35% *** 10: 3%	***NS. %s gradually increased from 1 to 5, and then gradually decreased from 6-10 in both groups.
HX Depression	30%	35%	NS
HX Psych Med	17%	20%	
HX Suicidality	21%	24%	

Table 2: Patients sexual behaviors, substance use, and mood.

homeless youth, so may not be representative of all homeless youth, and 2) it was a retrospective chart review, not a prospective study.

The findings from this study demonstrate that homelessness may be a more critical factor in youth engaging in risky behaviors, and having poor mood, than sexual orientation per se. Given the high rates found of risky sexual behaviors, substance use, and low mood, programs targeting homeless youth should offer support services specifically targeting these areas.

#### Acknowledgements

This project was funded in part by the Lucile Packard Foundation for Children's Health and The Children's Health Fund.

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