Published in final edited form as:

J Soc Serv Res. 2013 January 1; 39(1): 38–49. doi:10.1080/01488376.2011.633814.

An Ecological Systems Comparison Between Homeless Sexual Minority Youths and Homeless Heterosexual Youths

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Abstract

This study examined risk and protective outcomes by comparing homeless sexual minority youths to heterosexual homeless youths regarding family, peer behaviors, school, mental health (suicide risk and depression), stigma, discrimination, substance use, and sexual risk behaviors. Structured interviews ($N = 147$) were conducted with individuals ages 16–24 at three drop-in programs serving homeless youths in Toronto. Bivariate analyses indicated statistically significant differences between homeless sexual minorities ($n=66$) and their heterosexual counterparts ($n=81$) regarding all variables: family, peer behaviors, stigma, discrimination, mental health, substance use and sexual risk behaviors with the exception of school belonging. Specifically, homeless sexual minority youths fared more poorly (e.g. lower satisfaction with family communication, experienced more stigma, used more drugs and alcohol) than their heterosexual counterparts. Improving family communication may be a worthwhile intervention if the youths are still in contact with their families. Future research should focus on victimization in the context of multiple systems.

Keywords

Gay; Lesbian; Bisexual; Transgender; Homeless; Mental Health; Substance Use; Sexual Behavior; Stigma; Discrimination; Family; School; Ecological Systems Theory

Introduction

A Canadian study on homeless and street-involved youth found that 29.6% of street youth self-identified as “non-straight” and 2.7% as transgendered in a sample of 208 in Toronto (Gaetz, 2004, p. 433). Both homeless and sexual minority youths are often viewed as vulnerable and stigmatized populations. Sexual minority youths are overrepresented among homeless youths and homeless sexual minority youths face higher risk of mental health problems, substance use, and sexual risk behavior compared to their heterosexual homeless counterparts (Cochran, Stewart, Ginzler, & Cauce, 2002; Gattis, 2009; Gangamma, Slesnick, Toviessi & Serovich, 2008; Tyler, Whitbeck, Hoyt, & Cauce, 2004; Frederick, Ross, Bruno, & Erickson, 2011; Salonsen-Sautel et al. 2008; Marshall, Shannon, Kerr, Zhang, & Wood; Rew, Whittaker, Seehafer, & Smith; Walls, Potter, & Van Leeuwen, 2009). In the United States, a report issued by the National Gay and Lesbian Task Force (Ray, 2006) estimated that between 20–40% of all homeless youths self-identify as gay, lesbian, bisexual, or transgendered (GLBT). Evidence documenting the psychosocial problems facing sexual minority youths, both housed and homeless, has increased during the past three decades (Elze, 2005). Findings indicate that sexual minority youths do not comprise a homogeneous

at-risk group and some sexual minority youths are more at risk than others (Walls, Hancock, & Wisneski, 2007). For example, homeless sexual minority youths are more at risk for victimization, mental health problems, and substance abuse compared to housed sexual minority youths (Walls et al., 2007).

Likewise, when compared to heterosexual and cisgendered homeless youths (Vardi et al. 2008; Green, 2006), sexual minority youths who are homeless face heightened risk of mental health issues, substance use issues, sexual risk behavior, and discrimination (Cochran, Stewart, Ginzler, & Cauce, 2002; Tyler, Whitbeck, Hoyt, Cauce, 2004; Milburn, Ayala, Rice, Batterham, Rotheram-Borus, 2000).

Multiple government reports have identified sexual minorities as a high risk group. For example, the Healthy People 2010 Companion Document for Lesbian, Gay, Bisexual, and Transgender (LGBT) Health was published to complement the public health agenda in the United States (Gay and Lesbian Medical Association and LGBT Health Experts, 2001). The heightened risks facing sexual minorities regarding mental health issues, substance use issues, and sexual risk behavior are three of the nine areas targeted by Healthy People 2010 for disparities elimination between sexual minorities and non-sexual minorities (Gay and Lesbian Medical Association and LGBT Health Experts, 2001; Sell & Becker, 2001). Likewise, the Canadian Institutes of Health Research (CIHR) created the Reducing Health Disparities Initiative to address health disparities among vulnerable populations including homeless individuals and sexual minorities (Beiser & Stewart, 2005; Spitzer, 2005). The health disparities listed for homeless Canadians include higher risk for premature death, infectious diseases, mental health issues, health disabilities, and substance abuse. Sexual minorities in Canada face similar challenges to those in the United States, such as health problems related to a history of abuse, addiction, survival sex, and victimization (Beiser & Stewart, 2005; Spitzer, 2005).

Despite the growing literature regarding homeless sexual minority youths, gaps in knowledge still remain. A recent longitudinal study (Rosario, Schrimshaw, & Hunter, 2011) examined the role of social support regarding internalizing and externalizing symptoms among homeless sexual minority youths and enhance our understanding of the possibility of developing interventions that increase social support among homeless sexual minority youths. Another recent study conducted in Toronto (Frederick et al., 2011) explored risk and mental health outcomes by gender regarding homeless sexual minority youths. It is still unknown how homeless sexual minority youths compare to their heterosexual counterparts regarding family communication, peer behaviors, and school engagement. Ecological systems theory (Bronfenbrenner, 1989), with its emphasis on the role of individuals within environments, may be useful in conceptualizing and examining the potential similarities and differences between homeless sexual minority youths and their heterosexual counterparts. The theory views human development as existing within a set of interconnected systems including the microsystem, mesosystem, and macrosystem.

The purpose of the study is to examine whether there are differences between homeless sexual minority youths and their heterosexual counterparts regarding microsystem psychosocial problems (i.e. mental health, substance use and sexual risk behaviors), mesosystem factors (i.e., regarding family, peers, and school), and macrosystem factors (i.e. stigma and discrimination). It is hypothesized that homeless sexual minority youths will be experience more negative outcomes (e.g. use more substances, experience more stigma) than their heterosexual counterparts regarding microsystem, mesosystem, and macrosystem factors.

Methods

This study utilized a cross-sectional research design with structured face-to-face interviews of a convenience sample of 147 homeless youths aged 16-24 years ($M = 20.88$, $SD = 2.22$). Human subjects approval was obtained from the Research Ethics Board (REB) of the Office of Research Ethics at University of Toronto and from the Institutional Review Board (IRB) at Washington University. The interviews took place between September 9, 2009 and November 24, 2009.

Sample

Recruitment Procedures—Potential subjects were initially approached to participate in the study when seeking drop-in services at 3 agencies that provide services for homeless youths in downtown Toronto. A member of the staff explained the study to gauge interest and if the person was interested, assessed whether inclusion criteria was met (between age 16-24 and homeless at least seven days in the past month). If eligible, the staff member informed the individual of the general requirements, procedures, and compensation. If individuals were interested and willing to consent to the interview, they were referred to the principal investigator who obtained written consent and conducted the survey. Upon completion of the survey, each participant was paid \$15 for time spent completing the survey.

Dependent Variables

Microsystem Psychosocial Problems: Substance Use, Mental Health, and Sexual Behaviors—The Health Risk Questionnaire (HRQ) (Gangamma et al., 2008) was used to assess sexual risk behaviors. Individuals who answered yes ($n=137$) to ever having had sex in their lifetime were asked the following questions: “Have you ever engaged in casual sex, such as non-monogamous sex, a one night stand, or sex with someone who you didn’t intend to have a relationship with? (Do not include prostitution)?” “Have you ever had sex with more than one partner within a 24-hour time span?” “Have you ever engaged in anal sex?” “Have you ever engaged in oral sex?” “Have you ever engaged in vaginal intercourse?” “As far as you know, have you ever had sex with anyone who has ever worked as a prostitute?” “As far as you know, have you ever had sex with a drug user who shoots-up (someone who uses needles)?” “As far as you know, have you ever had sex with someone who had AIDS?” “Have you ever engaged in survival sex? That is, the exchange of sex for drugs, food, shelter, or money?” The yes/no response items were summed ($M=5.30$; $SD=1.95$; range = 1-10) to create a lifetime sexual risk index with a higher score indicating more lifetime sexual risk behaviors.

Lifetime substance abuse among respondents was assessed with measures from the 1998 National Household Survey on Drug Abuse (United States Department of Health and Human Services, 1998). The questions have been used with individuals 12 and older and measure lifetime usage for the following drugs: marijuana, cocaine (and crack), hallucinogens, heroin, inhalants, alcohol, tobacco, and nonmedical use of prescription drugs, including psychotherapeutics.

Depressive symptoms were measured using the Center for Epidemiologic Studies Depression Scale (CES-D) (Radloff, 1977) originally developed for epidemiology studies in the general population. In the original three CES-D studies, the coefficient alphas ranged from .85-.95. The CESD scores range from 0-57 with a mean of 23.55 ($SD=13.32$). Five questions from the 2009 Youth Risk Behavior Survey (YRSB) (CDC, 2007) were used to measure suicidal ideation. A dichotomous variable for number of suicide attempts, 0 attempts or 1 or more attempt(s), was created from a five-level variable. Also, in addition to

individual item analysis, the suicide variables were also combined to create a suicide-related index with a range of 0-5, mean 1.11 (SD=1.51).

Mesolevel: Family Communication, Peer Behaviors, School Engagement—The family communication subscale of the Family Adaptability and Cohesion Evaluation Scales FACES-IV (Gorall, Tiesel, and Olson, 2006) was used for this study. Responses range from 1-5 with one being strongly disagree and 5 being strongly agree. A sample statement is “Family members discuss their ideas and beliefs with each other.”

School engagement was measured using the Psychological Sense of School Membership (PSSM) (Goodenow, 1993). It was developed in an urban and suburban setting on a multi-ethnic sample of boys and girls in junior high and middle school. The instrument was designed to measure perceived belonging or psychological membership in the school environment. Respondents responded on a scale from 1-5 with one being not at all true and 5 being completely true in response to a statement. One example statement is “Sometimes I don’t feel as if I belong at my school.”

Thirteen items were used to assess peer behaviors and have been used previously with youths in foster care (Stiffman, Dore, Cunningham, & Earls, 1995; Baker, Jodrey, Intagliata, & Straus). The items measured positive and negative peer behaviors such as using drugs, running away from home, and saving money. An index of negative peer behaviors as reported by respondents was created using the following variables: “How many of your friend who are about your age are: not in school and don’t have a job, drink alcohol at least once a week, use drugs or marijuana at least once a week, have been in trouble with police or juvenile officer, have had babies or fathered children, ran away from where they were living, had failing grades in school, or had fights with other students.” The remaining variables: “How many of your friends who are about your age use condoms when having sex, go to college or plan to go to college, save money or have a job, were used to create a positive peer behavior index. A three level variable was created for each of the variables for the positive peer and negative peer indexes: none or a few, about half, and most or all. The original five levels were none, a few, about half, most, all.

Macrolevel: Stigma and Discrimination—The twelve-item social stigma scale was previously developed to assess the stigma associated with homelessness (Kidd, 2007). The scale has been validated on a sample of street youths aged 16-24 at agencies in Toronto and New York. The original scale was used to create a sum score and the response for each statement is 1-4 with 1 being strongly agree and 4 being strongly disagree. A sample statement is “I have been hurt by how people have reacted to me being homeless. The sexual orientation discrimination scale from Alcohol Use Disorder and Associated Disabilities Schedule-IV (AUDADIS-IV) was used (Ruan, et al, 2008). This discrimination scale was modeled after the Experiences with Discrimination (EOD) scales developed by Krieger and colleagues (Ruan et al., 2008). The discrimination scale measures self-reported experiences of discrimination due to sexual orientation in the past 12 months (Ruan et al., 2008). The sexual orientation discrimination scale includes questions regarding experiences of discrimination in health care, public places (streets, stores, restaurants), employment, school, courts, and housing; by the police; and through taunting and threats (Ruan, et al., 2008).

Analysis

Reliability analyses for all scales used in the present study. Items were reverse scored in the scales where appropriate. Alphas for already established scales used in the present study ranged from 0.79-0.90. Items that were not scales were combined to create indexes and a

coefficient alpha was run to determine reliability. The alphas for the indexes created for this study range from 0.64-0.93.

Bivariate analyses were conducted to compare each of the outcomes by whether or not the homeless youths self-identified as a sexual minority (gay, lesbian, bisexual, transgender) or a non-sexual minority. Chi-square tests were used to examine differences for categorical variables, and t-tests were used to compare means between groups. SAS was used for all analyses.

Results

More than half the sample (69%) was male. Sixty percent self-identified as white, 20% as black, 10% as other, and 7% as aboriginal, native Canadian including First Nations, Inuit and Metis. Fifty-seven percent self-identified as heterosexual, 8% as mostly heterosexual, 23% as bisexual, 7% gay or lesbian, 1% as asexual, and 5% as pansexual, attracted to individuals of all sexes and gender identities. The sexual minority category consisted of anyone who self-identified as mostly heterosexual, bisexual, gay, lesbian, asexual or pansexual. Also, two transgender individuals self-identified as heterosexual, but were included in the sexual minority category because of their gender identity. All others were considered non-sexual minority. There was no significant difference in age between sexual minority and heterosexual youths.

Microsystem Psychosocial Problems: Substance Use, Mental Health, and Sexual Behaviors

Substance Use—Results in Table 3 indicate that sexual minorities were more likely to have reported lifetime use of each of the 21 substances listed, except for marijuana, and these differences were statistically significant except for 3 of them (Morphine, Percodan, and Tylenol with Codeine). Looking at the lifetime substance use index, homeless sexual minorities used a higher number of substances in their lifetime ($M = 9.38$, $SD = 7.81$) compared to their homeless heterosexual counterparts ($M = 4.74$, $SD = 3.53$).

Mental Health Problems—Table 1 reports differences in depressive symptoms and suicidal ideation by sexual identity. Results indicate that homeless sexual minority youths compared to non-sexual minority youths were more likely to have seriously considered suicide (42% vs. 12% during the past 12 months, made a plan about committing suicide (27% vs. 11%) during the past 12 months, attempted suicide (27% vs. 8%), and injured themselves during a suicide attempt (15% vs. 2%). Homeless sexual minority youths reported a greater number of depressive symptoms ($M = 26.8$, $SD = 13.3$) than did homeless heterosexual youths ($M = 20.8$, $SD = 12.8$). Homeless sexual minority youths reported more lifetime suicide or suicide ideation ($M = 1.61$, $SD = 1.72$) compared to homeless heterosexual youths ($M = 0.70$, $SD = 1.17$). There was no statistically significant difference between sexual minority youths and non-sexual minority use in the percentage who reported that they stopped doing their usual activities for 2 weeks or more in a row.

Sexual Risk Behaviors—Table 2 reports differences in sexual risk behavior between sexual minority and non-minority youths. Results indicate that sexual minority youths were more likely to have engaged in lifetime survival sex (44% vs. 9% non-sexual minority), have had anal sex in their life (69% vs. 25% non-sexual minority), have had sex with a prostitute in their lifetime (42% vs. 13% non-sexual minority), have had sex with an IV drug user in their life (34% vs. 8% non-sexual minority), and have had sex with someone with HIV. There was no difference between sexual minority and nonminority youth regarding having sex with more than one partner in a 24-hour time span. Regarding the summary

index of lifetime sexual risk behavior, results indicate that homeless sexual minority youths ($M = 6.20$, $SD = 2.10$) have engaged in more of the sexual risk behaviors than their homeless heterosexual counterparts ($M = 4.56$, $SD = 1.51$).

Mesolevel: Family Communication, Peer Behaviors, School Engagement

Family—Results indicate that there was a statistically significant difference in satisfaction with family communication. On average, homeless sexual minorities ($M = 29.82$, $SD = 9.61$) had low satisfaction with family communication versus homeless non-sexual minorities ($M = 32.79$, $SD = 7.64$), ($t = -2.08$, $p = 0.04$) who had moderate satisfaction with family communication. In this study sample, the FACES-IV family communication scale ranges from 10-50, mean 31.46 ($SD = 8.67$).

Peer Behaviors—Results in Table 4 indicate that being a homeless sexual minority youth was associated with reporting that most or all of their friends were not in school and without jobs (39% vs. 19% non-sexual minority), had run away from where they were living (32% vs. 12% non-sexual minority), and had failing grades in school (49% vs. 29% non-sexual minority). There were no significant differences on the remaining items on the peer scale.

Homeless sexual minority youths had more negative peer relationships ($M = 20.25$, $SD = 5.99$) compared to their heterosexual counterparts ($M = 17.99$, $SD = 6.14$). There were no significant differences in positive peer relationships.

School Engagement—Results in Table 4 indicate that there was no difference between homeless sexual minority youths and their heterosexual counterparts in a psychological sense of school belonging. In this study sample, the Psychological Sense of School Belonging Scale ranges from 1.17-4.61, mean 3.08 ($SD = 0.76$).

Macrolevel: Stigma and Discrimination

Stigma—Table 5 indicates that homeless sexual minority youths ($M = 29.73$, $SD = 6.72$) had significantly lower total scores on the stigma scale which indicates higher levels of stigma related to being homeless compared to homeless heterosexual youths ($M = 32.09$, $SD = 5.96$) ($t = -2.22$, $df = 141$, $p = 0.03$). Although not reported here, a closer examination of the social stigma survey scale shows that “victimization” was the item that was significantly different between sexual minority and heterosexual youths. Homeless sexual minority youths were more likely to have been physically assaulted according to an item on the stigma scale. In this study, the range of the scale responses was 17-51, mean 31.03 ($SD = 6.39$).

Discrimination—Results in Table 5 indicate that homeless sexual minority youth ($M = 6.92$, $SD = 6.26$) experienced more discrimination in the past 12 months compared to homeless heterosexual youths ($M = 1.05$, $SD = 2.36$) ($t = 7.80$, $df = 145$, $p < .0001$). In this study sample the range was 0-4, mean 3.69 ($SD = 5.40$).

Discussion

The results of this study showed significant differences in microsystem psychosocial problems, mesosystem factors, and macrosystem factors between homeless sexual minority youths and homeless heterosexual youths. Although all homeless youth are at risk for these negative outcomes, these results confirm the hypothesis that sexual minority youth are more likely than their heterosexual homeless peers to report a range of negative outcomes. One notable exception is that there was no statistically significant difference regarding school belonging between the two groups. There may have been some bias in how youths answered

the questions about school engagement since many of them were no longer in school. The further back a respondent had to think back to answer a question, the less accurate the response may be (Drake & Jonson-Reid, 2008).

Previous studies documented the heightened risk facing homeless sexual minority youth compared to their heterosexual counterparts regarding microsystem psychosocial problems (mental health, substance use, and sexual risk behaviors) (Cochran et al., 2002). The findings in the present study confirmed prior research and adds to the literature by showing that similar disparities exist in an additional Canadian sample of homeless youths and by documenting the disparities for a number of other experiences with mesosystem (family and peers) as well as macrosystem (stigma and discrimination) factors (Fredericks et al., 2011; Kidd, 2007).

The greater risk for depression, suicide, substance use, sexual risk behaviors, negative peer behaviors, stigma related to being homeless, and discrimination in this sample demonstrates the increase vulnerability facing homeless sexual minority youths compared to their heterosexual counterparts. The lack of difference between the two groups regarding positive peer behaviors may be as a protective factor in this context. It is not the absence of peers engaging in positive behaviors, but rather the presence of peers engaging in negative behaviors that is an important distinction to be made for homeless sexual minority youths and may be a point of intervention.

The significant difference in satisfaction with family communication is a new and important finding. Previous literature has not address family communication as it relates to differences between homeless sexual minority youths and their heterosexual counterparts. It is not recommended that homeless youths return to dangerous family situations; however, improving family communication among families with homeless sexual minority youths may be a worthwhile intervention point if youths are still in contact with their families.

The differences in CES-D scores in this sample were not only statistically significant, but clinically significant as well. CES-D scores of 16-26 are considered mild depression and scores of 27 and above are indicative of major depression (Zich, Attkisson, & Greenfield). In this sample the mean score for homeless sexual minority youths was 27 (major depression) compared to a mean of 21 (mild depression) for heterosexual homeless youths, indicating clinically meaningful differences between sexual minority and heterosexual homeless youths. This finding suggests that different interventions may be needed to treat or prevent major depression in sexual minority youths, and that all homeless youths should be targeted for depression prevention efforts. Current interventions should be further evaluated to determine if different interventions for homeless sexual minority youths should be developed.

Currently, there are no crisis shelters or emergency services designed specifically for homeless sexual minority youths in Canada (Monsebraaten, 2009). In the United States, as of 2007, there were approximately 25 specialty shelters for homeless sexual minority youths (Urbina, 2007). It is unclear how effective they are, as no rigorous evaluation of outcomes has been published in peer-reviewed literature (Gattis, 2009).

The use of a convenience sample in this study is a limitation and findings can only be generalized to other homeless youth who access community-based agencies for 'drop-in' services in an urban area. The experiences and problems of homeless youths who are not receiving services may be different from those in this study. It is very probable that homeless youths not receiving services are worse off than those accessing services. There are several notable strengths in this study including the use of ecological systems theory to examine multiple systems provides a good structure for investigating individual factors,

social environments and broad societal factors, as much of the research in the area is atheoretical. The theory also allows for thinking about multi-level interventions. The use of three agencies to collect data from a hard-to-reach and underserved population allowed for a wider range of youths to be reached. Another strength of the study was the use of instruments that had already been validated. Future research should include multivariate analyses that address multisystem factors that may contribute to the disparate outcomes between homeless sexual minority youths and their heterosexual counterparts. Understanding the role of mesosystem factors (peers, family, and school) will help design and support interventions specific to homeless sexual minority youths. Also, future research should focus on victimization because bivariate analysis indicated that the victimization item on the stigma scale that sexual minority youths were more likely to be victimized for being homeless. Inclusion of a victimization scale may be useful in addition to stigma.

Conclusion

The results of this study have relevance to current social work practice and policy. Based on findings from this study, family communication may be an appropriate point of intervention to reduce disparities between homeless sexual minority youths and their heterosexual counterparts. Providing family therapy to discuss sexual identity may help families deal with youths who are coming out as a sexual minority, may serve as an intervention if the youth is out of the home, or as a preventative service to keep the youth in the home safely. Best practices used with sexual minority youths in out-of-home care suggests that intervention by providers who are trained to assess family dynamics, provide counseling and accurate information about sexual minority issues, and educate families about the effects of their words, actions and behaviors on their child's well-being help families adjust more quickly (Wilber, Ryan and Marksamer, 2006; Ryan & Diaz, 2005). These suggestions may be helpful when addressing the needs of families of homeless sexual minority youths.

Based on data from the Family Acceptance Project, new approaches that build on family strengths to increase support, reduce sexual minority youths' risk, and promote their well-being and may have relevance for homeless sexual minority youths. They have found that even non-accepting families are motivated to modify negative behaviors once they learn how specific actions, words, and behaviors affect their sexual minority youth's well-being (Ryan, Huebner, Diaz, & Sanchez, 2009). According to Ryan (2008), the most urgently needed next step is to develop interventions that are sensitive to the needs of sexual minorities to help families with different levels of understanding, coping abilities and capacities. Such interventions should be designed to increase family support for sexual minority youths and hence decrease risk. A family-related approach to prevention and care may help prevent multiple negative health outcomes in homeless sexual minority youths.

Additional questions for future research regarding homeless sexual minority youths are: Are specialty shelters optimal for prevention and intervention efforts regarding homeless sexual minority youths? Does it take homeless sexual minority youths longer to exit homelessness than heterosexual homeless youths? What are the effects of multiple stigmatized identities, such as being a homeless racial and sexual minority? What are provider perceptions of homeless sexual minority youths? Further exploration of the role of contextual factors is also imperative to inform interventions to reduce disparities between homeless sexual minority youths and their heterosexual counterparts and the population as a whole. Also, only one dimension of sexual orientation was examined, sexual identity. It is possible that same-sex attraction or same-sex sex behavior are stronger moderators of the relationship between mesosystem factors and psychosocial problems?

The findings from this study extend the work of previous studies to understand the ecological systems theory contextual factors associated with microsystem psychosocial problems of homeless sexual minority youths by comparing them to homeless heterosexual youths. Social work with youths in general should be more inclusive of sexual minority concerns, particularly when working with homeless youths. The results show that homeless sexual minority youth experience greater challenges than their heterosexual peers in psychosocial challenges at the meso and macro levels. Further understanding of the meso-level and macro-level factors contributing to disparities in psychosocial problems between homeless sexual minority youths and their heterosexual counterparts is required. Social work researchers, practitioners, and policymakers can serve as advocates for this vulnerable and sometimes invisible population. Reduction in disparities in psychosocial problems between homeless sexual minority youths and their heterosexual counterparts would contribute to the psychosocial and physical health of both youths and of society.

Acknowledgments

This study was funded by Canada-U.S. Fulbright, Chancellor's Graduate Fellowship and Washington University in St. Louis and the International Dissertation Award at the George Warren Brown School of Social Work at Washington University in St. Louis. Special thanks to for support throughout the study to Drs. Wendy Auslander, Stephen Gaetz, Renee Cunningham-Williams, Nancy Morrow-Howell, Juan Pena, Ed Spitznagel Jr., Aron Shlonsky, and Bradley Stoner.

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Table 1
Suicide and Depressive Symptoms by Sexual Identity

VARIABLE	Sexual Identity		X ² or t-test
	Sexual Minority n (%) or Mean (SD)	Non-Sexual Minority n (%) or Mean (SD)	
Stopped Doing Usual Activities for 2 Weeks or More in a Row (n=147)	32 (48)	32 (40)	X ² =1.19
Seriously Considered Suicide in Past 12 Months (n=147)	28 (42)	9 (11)	X ² =18.9 ***
Made a Plan About How Suicide Would be Attempted (n=147)	18 (27)	9 (11)	X ² =6.3 **
Attempted Suicide 1 or More Times in the Past Year (n=146)	18 (27)	6 (8)	X ² =10.3 **
Suicide Attempted that Ended in Injury Treated by Doctor or Nurse in Past 12 Months (n=147)	10 (15)	2 (2)	X ² =10.1 **
Total Depressive Symptoms (n=146)	M=26.84 ⁺ (13.31)	M=20.83 ⁺ (12.77)	t=2.78 **
Suicide (n=146)	M=1.61 (1.72)	M=0.70 (1.17)	t=3.77 **

**
p<=0.01

p<=0.0001

⁺ Note: CES-D scores of 16-26 are considered mild depression and scores of 27 and above are indicative of major depression or is a more stringent cutoff suggested for depression in medical samples (Zich, Attkisson, & Greenfield, 1990).

Table 2
Sexual Risk Behavior by Sexual Identity (n=137)

VARIABLE	Sexual Minority n(%) or Mean (SD)	Non-Sexual Minority n (%) or Mean (SD)	X ² or t-test
Lifetime Survival Sex	27 (44)	7 (9)	X ² =21.30 ***
Lifetime Anal Sex	43 (69)	19 (25)	X ² =26.55 ***
Lifetime Oral Sex	58 (94)	65 (87)	X ² =1.75
Lifetime Vaginal Sex	54 (87)	75 (100)	N/A
Lifetime Sex with Prostitute	26 (42)	10 (13)	X ² =14.33 **
Lifetime Sex with IV Drug User	21 (34)	6 (8)	X ² =14.36 **
Lifetime Casual Sex	55 (89)	62 (83)	X ² =0.99
Lifetimes Sex with > 1 Person in 24 Hours	35 (56)	39 (52)	X ² =0.27
Lifetime Sexual Behavior	M=6.20 SD=2.10	M=4.56 SD=1.51	t=5.36 ***

*
p<.05

**
p<=0.01

p<=0.0001

Table 3
Lifetime Substance Use by Sexual Identity (N=147)

VARIABLE	Sexual Minority n (%) or Mean (SD)	Non-Sexual Minority n (%) or Mean (SD)	X ² or t-test
Marijuana	59 (89)	75 (93)	X ² =0.46
Crack	23 (35)	8 (10)	X ² =13.63 **
Cocaine	39 (59)	34 (42)	X ² =4.26 *
Heroin	11 (17)	3 (4)	X ² =7.09 **
Hallucinogens			
LSD	32 (48)	15 (19)	X ² =15.01 ***
PCP	17 (26)	3 (4)	X ² =15.05 ***
Peyote	11 (17)	4 (5)	X ² =5.46 *
Mescaline	11 (17)	2 (2)	X ² =9.09 **
Mushrooms	42 (63)	37 (46)	X ² =4.71 *
Ecstasy	46 (70)	42 (52)	X ² =4.82 *
Poppers	24 (36)	4 (5)	X ² =23.29 ***
Inhalents			
Whippets	11 (17)	2 (2)	X ² =9.09 **
Analgesics			
Codeine	19 (29)	10 (12)	X ² =6.21 **
Demerol	10 (15)	3 (4)	X ² =5.91 **
Dilaudid	11 (17)	2 (2)	X ² =9.09 **
Morphine	15 (23)	9 (11)	X ² =3.59
Percodan	10 (15)	8 (10)	X ² =0.94
Tylenol with Codeine	19 (29)	15 (19)	X ² =2.16
Tranquilizers			
Valium	20 (30)	5 (6)	X ² =15.00 ***
Stimulants			
Dexadrine	11 (17)	2 (2)	X ² =9.09 **
Methamphetamine	23 (35)	5 (6)	X ² =19.39 ***
Lifetime Substance Use	<i>M</i> =9.38 <i>SD</i> =7.81	<i>M</i> =4.74 <i>SD</i> =3.53	t=4.78 ***

*
p<=.05

**
p<=.01

<=0.0001

Table 4
Peer Relationships and School by Sexual Identity

VARIABLE	Sexual Minority n (%) or Mean (SD)	Non-Sexual Minority n (%) or Mean (SD)	X ² or t-test
Most/All Peers Not in School and Don't Have a Job (n=147)	26 (39)	15 (19)	X ² =10.62 *
Most/All Peers Drink Alcohol at Least Once a Week (n=147)	44 (67)	51 (63)	X ² =4.15
Most/All Peers Use Drugs or Marijuana Once a Week (n=147)	50 (76)	50 (62)	X ² =4.08
Most/All Peers Have Been in Trouble with Police or Juvenile Officer (n=144)	29 (45)	31 (39)	X ² =1.10
Most/All Peers Have Had Babies or Fathered Children (n=146)	9 (14)	17 (21)	X ² =3.49
Most/All Peers Ran Away from where they were living (n=138)	19 (32)	9 (12)	X ² =8.64 **
Most/All Peers Had Failing Grades in School (n=138)	30 (49)	22 (29)	X ² =6.16 *
Most/All Peers Use Condoms When Having Sex (n=119)	24 (46)	28 (42)	X ² =1.16
Most/All Peers Have Fights With Other Students (n=143)	15 (24)	22 (27)	X ² =0.41
Most/All Peers Go to College or Plan to Go to College (n=146)	10 (15)	18 (22)	X ² =1.37
Most/All Peers Save Money (n=143)	10 (15)	18 (23)	X ² =1.28
Most/All Peers Have a Job (n=147)	10 (15)	18 (22)	X ² =3.84
Total Scale Scores			
Negative Peer Relationships (n=131)	<i>M</i> =20.25 <i>SD</i> =5.99	<i>M</i> =17.99 <i>SD</i> =6.14	t=2.11 *
Positive Peer Relationships (n=129)	<i>M</i> =6.96 <i>SD</i> =2.91	<i>M</i> =7.21 <i>SD</i> =2.91	t=-0.65
Psychological Sense of School Belonging (n=143)	<i>M</i> =2.95 <i>SD</i> =0.78	<i>M</i> =3.18 <i>SD</i> =0.73	t=0.08+

Note: Although the t-value is not statistically significant it is marginally significant ($p=0.07$), 3 is a tipping point for which students have more positive or negative experiences in school. Homeless sexual minorities average sum score is below 3 indicating more negative experiences and homeless heterosexual youths average sum score is above 3 indicating more positive experiences.

*
 $p<=.05$;

**
 $p<=.01$

Table 5
Stigma and Discrimination by Sexual Identity (N=147)

VARIABLE	Sexual Minority N (%)	Non-Sexual Minority n (%)	t-value
Total Stigma Scale Sum	<i>M</i> =29.73 <i>SD</i> =6.72	<i>M</i> =32.09 <i>SD</i> =5.96	-2.22 *
Discrimination Scale Sum Score (Past 12 months)	<i>M</i> =6.92 <i>SD</i> =6.26	<i>M</i> =1.05 <i>SD</i> =2.36	7.80 ***

*
 $p < .05$;

 $p < 0.0001$