

A Comparison of Transgender, Gay/Bisexual, and Heterosexual Youth:
Service Needs in an HIV Risk Reduction Clinic

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RUNNING HEADER:

HIV RISK IN TRANSGENDER, GAY/BISEXUAL, AND HETEROSEXUAL YOUTH

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ABSTRACT

This paper examines risk factors among youth attending an HIV risk reduction clinic with special services designed to engage and retain transgender youth. Using data from 400 youth (45 HIV-positive), participants were categorized by HIV status and Gender/Sexual Orientation Group (gay/bisexual males, lesbian/bisexual females, heterosexual males, heterosexual females, and transgender (male-to-female)). Two indexes were developed to measure relative service needs. The Demographic Needs Index represents a composite of being under 18 years of age, a person of color, homeless, a runaway, criminal justice system-involved, or mental health service system-involved. The Risk Behavior Index represents a composite of engaging in sex with men, sex with women, sex with an injection drug user, sex with an HIV-positive partner, survival sex, having an STD, substance abuse, or injection drug use. These indices are used to compare the service needs of youth in HIV risk reduction services and may be useful predictors of clinical outcomes for youth at risk.

INTRODUCTION

Because of their vulnerability to a number of physical, emotional, and social health problems (e.g., James, 1998; Nelson, 1994), transgender youth may require enriched and specialized health care programs (Kreiss and Patterson, 1997). Such specialized services include HIV services (Bockting *et al.*, 1998a) and targeted outreach to this often hidden population (Bockting *et al.*, 1998b). Services for transgender youth need to address the various ways that HIV may affect them uniquely (Groomes, 1998). The present paper examines the risk profiles of youth attending a medical clinic for high-risk youth that has been expanded to include special programs for transgender youth.

The factors that place young people at risk for HIV and other related health problems have been well documented in the literature. Sexual (e.g., Malow *et al.*, 1997; Murphy *et al.*, 1998) and drug abuse (e.g., Deas-Nesmith *et al.*, 1999; Kipke *et al.*, 1996) behaviors have been extensively studied, in order to understand and develop prevention messages as well as treatment interventions for adolescents and young adults. In addition to the behavioral literature, however, a number of psychosocial conditions are known to make a young person vulnerable to HIV infection, including mental health problems (e.g., Brown *et al.*, Danovsky *et al.*, 1997; Kissinger *et al.*, 1997), criminal justice involvement (e.g., Barthlow *et al.*, 1995; Hammett *et al.*, 1998), being a member of an ethnic-cultural minority (e.g., Jemmott *et al.*, 1992; Rotheram-Borus and Koopman, 1991), homeless (e.g., Athey, 1991; Kipke *et al.*, 1993), or runaway (e.g., English, 1991). In addition, youth frequently encounter a healthcare system that is geared to adults and is not age-appropriate (e.g., D'Angelo *et al.*, 1994; Erhardt, 1996). The present investigation brings together indicators of these various factors to examine how they can be used to indicate levels of need for community-based services.

The Childrens Hospital Risk Reduction Clinic

The Division of Adolescent Medicine at Childrens Hospital Los Angeles (CHLA) established its HIV Risk Reduction Program in 1988. The program has grown to include community-based HIV prevention and skills-building programs targeting youth (particularly homeless youth and teen parents), HIV antibody testing programs targeting homeless youth, comprehensive healthcare, case management, psychological services for HIV infected youth, and research activities examining the course of HIV infection in youth.

As part of a national service demonstration initiative, CHLA developed and tested a model of HIV care for youth who traditionally lacked access to healthcare and treatment. This model included 1) targeted outreach to youth living with HIV and those at highest risk; 2) enhancement of youth-specific and youth-sensitive health services providing the full scope of services from HIV testing to HIV care; 3) provision of youth-specific case management and allied health professional services; 4) development of a youth empowerment program; and 5) development of community trainings and workshops to enhance the expertise of community agency staff. Schneir, Kipke, Melchior, and Huba (1998) give a detailed description of the service model. The elements of the service model include those judged by the consensus of a group of national demonstration projects for adolescent HIV care as critical for providing high quality, accessible services for youth living with HIV and those at high risk for HIV infection (Huba & Melchior, 1998).

Within its Risk Reduction Clinic, CHLA developed services specifically targeted to meet the needs of transgender youth. In addition to their unique psychosocial needs, these young people engage in multiple high-risk behaviors and have significant medical, mental health, and case management needs. Although current statistics collected by Los Angeles County and the

CDC do not allow for monitoring the prevalence of HIV infection in this gender group, anecdotal information suggests a very high rate. At the Risk Reduction Clinic, transgender youth receive both a medical and a psychological evaluation. A physician conducts a medical history, evaluates hormone use history, collects specimens for routine STD checks, and evaluates hormone levels. A psychologist evaluates the history of gender dysphoria. The physician and psychologist develop and implement a care plan to meet the unique needs of the young person.

Purpose

Because there are a multitude of risk factors present in this population, we sought to develop a method of data reduction that would yield one or more indices of HIV risk for these youth. The present study takes a range of risk factors for young people identified in the research literature and forms two composite indicators to characterize these issues. Taken collectively, the risk indices are conceptualized as a way to quantify the overall level of “need” or therapeutic vulnerability of the youth in HIV risk reduction services. In addition, the development of these composites permits a comparison of youth as to HIV risk and service needs. The present investigation compares youth on these indices based on known HIV serostatus and Gender/Sexual Orientation group.

METHODS

Participants

Data were analyzed from a group of 400 youth enrolled in services at an HIV risk reduction clinic for adolescents and young adults. The youth were ethnically-racially diverse (62.0% Latino, 16.0% Caucasian, 13.5% African American, 3.0% Asian American, 0.5% Native American, 2.0% multiracial, and 3.0% with unknown ethnicity) and ranged from 12 to 25 years of age (mean age = 19.24 years, standard deviation = 2.61 years). In this sample, 45 of the 400

youth were known to be HIV-positive, either from testing provided at the clinic or from another source. The present analyses include youth from five mutually exclusive Gender/Sexual Orientation Groups. The sample includes 49 gay/bisexual males, 118 heterosexual males, 163 heterosexual females, 19 lesbian/bisexual females, and 51 transgender (male to female) youth.

Measures

Client characteristics were recorded by program staff on a Contact Form (Huba, Melchior, and the Staff of The Measurement Group, 1994a) at the time of a young person's enrollment into the project, usually at the first clinic visit. For the purposes of the present analyses, all elements included into the risk indices were coded dichotomously as whether the risk was known to be present (1) or not (0).

Demographic Needs Index. The Demographic Needs Index represented a composite of whether the youth was under 18 years of age, a person of color, homeless, known to be a runaway, involved with the criminal justice system, or involved with the mental health service system. Scores on the composite Demographic Needs Index had a possible range from 0 to 6, with a mean score of 1.52 (SD = .79). With respect to the individual indicators comprising the Demographic Needs Index, 40.5% of the sample was under the age of 18, 84.0% a person of color, 8.5% identified as homeless, 3.8% known to have run away from home, 2.5% had known involvement with the criminal justice system, and 13.0% had known involvement with mental health services at the time of enrollment into this project.

Risk Behavior Index. The Risk Behavior Index represented a composite of the youth's known involvement in sex with men, sex with women, sex with an injection drug user, sex with an HIV-positive partner, survival sex, having an STD, substance abuse, or injection drug use. The composite Risk Behavior Index ranged from 0 to 8, with a mean score of 1.80 (SD = 1.26).

With respect to the individual indicators comprising the Risk Behavior Index, 6.0% had sex with an injection drug user, 5.3% had sex with an HIV-positive partner, 11.5% were known to have engaged in survival sex, 17.8% had a history of an STD, 41.3% were known to be substance abusers, and 7.5% were known to be injection drug users. Based on stated Gender/Sexual Orientation group, the following percentages of youth were sexually active with male partners: 11.0% of the heterosexual males, 89.8% of the gay/bisexual males, 80.4% of the transgender youth, 94.5% of the heterosexual females, and 10.5% of the lesbian/bisexual females. With regard to sex with female partners, 90.7% of the heterosexual males, 46.9% of the gay/bisexual males, 21.6% of the transgender youth, 3.1% of the heterosexual females, and 89.5% of the lesbian/bisexual females were known to be sexually active with female partners.

The two indices are independent of one another ($r = .05$).

Specific Service Needs. For a subsample of 103 youth, an additional data source was available. These youth were administered a detailed psychosocial history (Brief Natural History Interview or BNHI; Huba, Melchior, and the staff of The Measurement Group, 1994c) shortly after their initial clinic visit. Among other domains, youth who were administered the BNHI were asked whether they had needed 17 possible types of services in the past six months, including counseling, healthcare, mental health treatment, substance abuse treatment, and other ancillary support services.

Statistical Analyses

Between-group differences on the risk indices were computed using ANOVA. Differences in the proportions of youth in various groups with specific risk indicators present were tested using chi-squared crosstabulations. Relationships between the needs indices and

specific service needs were examined using bivariate Pearson correlations. All analyses were conducted in SPSS for Windows, version 9.0 (SPSS, 1999).

RESULTS

Comparisons on the composite scores for the youth based on Gender/Sexual Orientation and HIV status are shown in Tables I and II.

 Insert Tables I and II About Here

As can be seen in Tables I and II, there were no HIV-positive lesbian women in the sample. For this reason, lesbian women were excluded from the following analyses, with a resulting sample size of $n = 381$ and four mutually exclusive Gender/Sexual Orientation Groups.

Two ANOVAs were conducted to examine the effects of HIV Status and Gender/Sexual Orientation Group on the Demographic Needs and Risk Behaviors indices. For the Demographic Needs Index, there were statistically significant main effects for both HIV Status [$F(3,373) = 3.38, p < .05$] and Gender/Sexual Orientation Group [$F(1,373) = 13.67, p < .001$]. The interaction between HIV Status and Gender/Sexual Orientation Group was not statistically significant [$F(3,373) = 2.43, p > .05$]. The main effect for HIV Status means that youth of unknown HIV status had higher scores on the Demographic Needs Index than youth known to be HIV-positive. The main effect for Gender/Sexual Orientation Group, followed up by Tukey HSD post hoc tests, shows that transgender youth score significantly lower than heterosexual males and heterosexual females on this measure (both $p < .05$), but not significantly different than gay/bisexual males.

For the Risk Behavior Index, there was a statistically significant main effect for Gender/Sexual Orientation Group [$F(3,373) = 18.45, p < .001$], but not for HIV Status [$F(1,373) = 2.26, p > .05$]. The interaction between HIV Status and Gender/Sexual Orientation Group was statistically significant [$F(3,373) = 5.61, p = .001$]. Tukey HSD post hoc tests indicated that transgender youth score the highest on the Risk Behavior Index, significantly higher than heterosexual males and females (both $p < .001$), but not significantly different than gay/bisexual males. The HIV Status by Gender/Sexual Orientation Group interaction is illustrated by the following result: for heterosexual females, HIV-positive youth have higher Risk Behavior Index scores than youth of unknown HIV status, but for gay/bisexual males, HIV-positive youth have lower overall Risk Behavior Index scores than youth of unknown HIV status.

Table III shows Pearson correlation coefficients between scores on the two needs indices and measures of service need from subsample of 103 youth. One-tailed significance tests were used as it was expected that youth with a higher demonstrated level of need or risk behaviors would have greater service needs. The pattern of correlations provides evidence of construct validity for the Risk Behavior Index. Youth with higher scores on the Risk Behavior Index were significantly more likely to have reported needing counseling, outpatient healthcare, help getting food and clothing, long-term housing, outpatient and inpatient mental health treatment, residential substance abuse treatment, self-help groups, and case management. The Demographic Needs Index was not significantly related to specific service needs in the expected direction.

Insert Table III About Here

DISCUSSION

The present study created a heuristic for identifying and comparing the level of service need among a diverse group of young people living with HIV, or at high risk to become HIV-positive. Two indices were developed to measure Demographic Needs and Risk Behaviors in this population. These measures were useful in comparing the various therapeutic issues that arise among transgender, gay/bisexual, and heterosexual youth attending an HIV risk reduction clinic. As can be seen, all youth in this sample have engaged in a number of high risk sexual and drug use behaviors that place them at risk for HIV and other related health and psychosocial problems. The Risk Behavior Index also demonstrated evidence of construct validity in that high scorers tended to also report a number of recent service needs.

Low scores on the Needs Indices do not necessarily indicate a low level of need. Being a sexual minority youth (e.g., transgender, gay, or lesbian) was not coded in either of the “needs” indices, yet these groups tend to have large unmet service needs. Because we use Gender/Sexual Orientation Group in the present study as a predictive factor, we start off with the assumption that these youth face an uphill battle in navigating healthcare and social service systems. As a related issue, we coded being under 18 years of age as an indicator of greater “need,” because young people traditionally do not have their needs met by the adult-oriented service system. In the present study, however, HIV-positive youth tended to score somewhat lower on the Demographic Needs Index, in part because there was a greater percentage of youth under the age of 18 who were of unknown HIV status. This finding is not surprising, given that younger adolescents (as opposed to young adults) have had less time to be exposed to HIV, seroconversion can take a number of years, and younger adolescents may be less likely to have been tested for HIV, to name but a few reasons.

The present finding may reflect the various recruitment strategies used to enroll youth in the Risk Reduction Program. The youth were recruited into the clinic using various methods, which are somewhat related to gender/sexual orientation. Young gay men tended to already have tested HIV-positive and enrolled in the clinic through referrals from a tightly linked consortium of youth-serving agencies in the catchment area. Transgender youth were mainly identified through word of mouth and agency referrals. Having a diagnosis of Gender Identity Disorder was not a requirement for enrollment in transgender services, although most of the transgender youth did meet DSM-IV diagnostic criteria. Women of unknown HIV status tended to be recruited through outreach in at-risk communities of color, whereas young women living with HIV were likely to have been referred to the clinic from community-based HIV testing sites. Finally, young heterosexual men were also identified through outreach and continuing involvement in outpatient healthcare services provided by the Risk Reduction Clinic and its linked continuum of care. Because the goal of the project was to enroll high-risk youth into care, the means used to reach youth varied, depending on their own HIV status and gender/sexual orientation. Thus these groups do not serve as natural controls, and in fact, were not selected for participation in the project to be comparable to one another. Youth come to the clinic for different reasons. For example, youth living with HIV tend to have a continuing need for high-intensity, youth-specific HIV care. Transgender youth, regardless of HIV serostatus, have a number of very unique service needs. Given that most of the transgender youth in this project were not HIV-positive, the present results inform the unique HIV prevention needs in this hidden population. As a group, these male-to-female transgender youth have high rates of a number of HIV risk behaviors, but also need access to a continuum of healthcare services in general that are provided in a sensitive, non-judgmental manner.

The present findings also reflect the “two faces” of the AIDS epidemic in young people. Although sexual minority youth may have lower scores than heterosexual youth on the Demographic Needs Index in this setting, the fact that they are gay, lesbian, bisexual, or transgender – which was not included as a component of the Demographic Needs Index – places them as a target group for HIV risk reduction services. Because such youth are more likely to be estranged from their families of origin, they are less likely to have access to health insurance and quality healthcare services. Thus, HIV risk reduction services need to specifically outreach to such youth because they are otherwise likely to fall through the cracks of the traditional healthcare system. On the other hand, levels of “need” identified in heterosexual youth in this sample are high because the program has specifically targeted youth in communities with high rates of HIV risk behaviors (including communities of color) and has implemented aggressive community outreach strategies to engage and retain such youth in care. Whether through street outreach conducted by peers, or through agency referrals and tightly linked service networks, the CHLA risk reduction program has targeted youth at risk in greater Hollywood and will continue to do so as long as the area remains a magnet for disenfranchised and at-risk youth.

Because the CHLA Risk Reduction Clinic had developed specialized services for transgender youth and built a significant following in the community, the present study was an unusual opportunity to study the service needs and risk factors in this population. The findings presented here suggest that the service needs of transgender youth admitted to such a clinic may be more comparable to those of gay/bisexual youth than to heterosexual youth at risk for, or living with, HIV disease. Further work will examine the outcomes of these youth as a function of their involvement in a continuum of care specifically designed to meet their needs.

As a measurement issue, the identification of HIV risk is fraught with challenges (e.g., Kauth *et al.*, 1991; Weinhardt *et al.*, 1998). Others have demonstrated that reporting of risky behaviors is highly susceptible to social desirability response bias (e.g., DiFranceisco *et al.*, 1998), and along those lines, we believe that the overall level of risky behavior is likely to be underreported in the present investigation. Even recognizing that limitation, however, the Risk Behavior Index appears to be a valuable measure of the number of high-risk behaviors in which a young person has engaged. As a method of assessing level of need in a clinical population of youth living with HIV, or at high risk for HIV infection, the present indices demonstrate promise as an easily obtained yardstick by which relative service needs and risk level can be assessed. Although a number of detailed measures of HIV risk exist in the literature (e.g., Susser *et al.*, 1998), including those which differentially weight various risk behaviors, the two indices presented here may usually be constructed given information that is routinely obtained in conducting outreach, or enrolling youth to an HIV risk reduction program. Although assessment of risk at this relatively global level may not substitute for a more rigorous, detailed psychosocial assessment of specific sexual and drug use behaviors, knowing the relative level of risk present in a high-risk youth entering care can help to suggest service needs and areas for further evaluation.

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Table I

Distribution of Demographic Needs Index by Gender/Sexual Orientation Group and HIV Status

Gender Orientation Group	HIV Status	n	Demographic Needs Index		
			<u>M</u>	<u>SD</u>	<u>SEM</u>
Heterosexual Males	HIV-Positive	8	1.00	.76	.27
	HIV Status Unknown	110	1.62	.78	.07
Gay/Bisexual Males	HIV-Positive	14	.79	.70	.19
	HIV Status Unknown	35	1.71	.86	.15
Transgender Youth	HIV-Positive	6	.83	.75	.31
	HIV Status Unknown	45	1.29	.63	.09
Heterosexual Females	HIV-Positive	17	1.53	.51	.12
	HIV Status Unknown	146	1.62	.83	.07
Lesbian/Bisexual Females	HIV-Positive	0	--	--	--
	HIV Status Unknown	19	1.37	.60	.14

Note. Scores on the Demographic Needs Index range from 0 to 6.

Table II

Distribution of Risk Behavior Index by Gender/Sexual Orientation Group and HIV Status

Gender Orientation Group	HIV Status	n	Risk Behavior Index		
			<u>M</u>	<u>SD</u>	<u>SEM</u>
Heterosexual Males	HIV-Positive	8	1.13	.99	.35
	HIV Status Unknown	110	1.87	1.01	.10
Gay/Bisexual Males	HIV-Positive	14	1.64	.93	.25
	HIV Status Unknown	35	2.86	1.52	.26
Transgender Youth	HIV-Positive	6	2.33	1.03	.42
	HIV Status Unknown	45	2.67	1.73	.26
Heterosexual Females	HIV-Positive	17	2.18	1.19	.29
	HIV Status Unknown	146	1.59	.89	.07
Lesbian/Bisexual Females	HIV-Positive	0	--	--	--
	HIV Status Unknown	19	2.53	1.02	.23

Note. Scores on the Risk Behavior Index range from 0 to 8.

Table III

Correlations Between Risk Indices and Service Needs (n = 103)

Service Need	Demographic Needs Index	Risk Behavior Index
Counseling	-.12	.18*
Outpatient health care	.03	.18*
Emergency medical	-.09	.10
Hospitalization	-.12	-.09
Pharmacy	.01	.01
Alternative health care	-.20	.15
Help getting food and clothing	-.05	.28**
Long term housing (\geq 1 month)	-.05	.25**
Short term housing (< 1 month)	-.04	.15
Vocational training	-.06	.05
Family counseling	.13	.13
Outpatient mental health treatment	-.14	.29**
Inpatient mental health treatment	.06	.28**
Residential substance abuse treatment	-.16	.26**
Outpatient substance abuse treatment	-.16	.15
Self-help groups	-.08	.29**
Case management	-.22	.30**

Note. * $p < .05$, ** $p < .01$ (one-tailed)