

A SNAPSHOT OF HOMELESS YOUTH IN SEATTLE: THEIR CHARACTERISTICS, BEHAVIORS AND BELIEFS ABOUT HIV PROTECTIVE STRATEGIES

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INTRODUCTION

Homeless adolescents are at particular risk for contracting HIV, and developing AIDS.[1-5] Not only does homelessness put these youth at risk, but their age also makes them vulnerable. An epidemiological study by DiClemente[6] estimated that 20-25% of current AIDS cases were contracted during adolescence. When one considers the precarious living situations of homeless youth in conjunction with their high rates of risky sexual and drug use behaviors, it is clear that interventions educating homeless youth about ways to protect themselves from HIV infection are important.

As many have noted, it is first necessary to understand the characteristics and beliefs of a population before effective interventions can be designed.[7-9] To continue to enable these youth to protect themselves from HIV and other sexually transmitted diseases (STD), we need to understand their risky behavior and areas of faulty knowledge. In addition, we need to look at the diversity within the homeless youth population to see if different groups have different knowledge regarding HIV and thus have different educational needs.

Youth agencies have been working to educate street youth and to offer condoms and free anonymous HIV testing. Peer counseling, youth shelters and street outreach are also available. How are such efforts being received? Do street youth know that they are available? The goals of this study were to determine what homeless youth know and believe about protecting themselves from HIV, to determine what risky behaviors the youth are still engaged in, and to assess whether homeless youth are using the condoms that now seem readily available to them. This study provides a unique perspective as an evaluation of an early program to increase HIV knowledge and testing among Seattle homeless youth. These data indicate what areas the youth know very well and what areas still need to be targeted. We also examine the diversity of behaviors within the homeless youth population to determine whether different areas may need to be targeted in order to tailor interventions for specific youth subgroups.

METHODS

Face-to-face interviews were conducted with 289 youth as part of an assessment of Seattle YouthCare's AIDS Prevention, Intervention, and Education (PIE) outreach program. Details about PIE and the outreach services YouthCare provides have been reported elsewhere.[10] The data were collected in three waves 10 months apart in 1994 and 1995. Five youth in the Time 2 collection and 12 youth in the Time 3 collection said that they had participated in one of the earlier data collection waves. These youth's later interviews (n = 17) have been removed from the data set presented here to avoid double-counting their responses. Data with the remaining 272 youth are reported here.

Over the course of the two-year study, the interview team consisted of one male and eight female interviewers. All interviewers were trained to follow the interview protocol while remaining sensitive to the youth's needs. Youth were approached both in youth centers (n = 198) and on the street (n = 74). Therefore, these data represent a snapshot of the homeless youth population in Seattle as a whole, not just youth served in shelters or youth centers.

Interviews at the youth centers were conducted with permission of the center staff. When interviewing youth at the youth centers, interviewers approached youth to determine if they were interested in

participating in the study. Interviews took place in private rooms within the centers. On the street, interviewers approached clusters of youth who looked to be street-involved and determined their interest and eligibility. Youth were compensated \$5 for their participation. No eligible youth declined to be interviewed.

Interviews took place on the street or in local restaurants. Interviews included Likert scale questionnaire items as well as some openended questions. Eligible youth were between the ages of 13 and 22, did not live with their parents full-time and had lived in the Seattle area for at least three months. A typical interview lasted approximately 30 minutes.

Measures

Basic demographic information, detailed information on drug and sexual behaviors, and information about street experiences were obtained during the interview. The demographic information included age, gender, race/ethnicity, sexual orientation, and where the youth spent most nights.

Condom Use. Youth were asked if they had "ever used condoms." Youth also rated how frequently they had vaginal, oral and anal sex in the past three months and how frequently they used condoms during each type of sex. For example, "How often do you have oral sex with your main partner?" was followed by, "When you have oral sex with your main partner, how often do you use condoms/latex?" These questions were asked about three different types of partners, main, casual and client, for a total of 18 questions. Responses were rated on a scale from 0 (Never) to 4 (Every Time).

HIV Protective Strategies. Youth were queried about HIV protective strategies. Youth were told that the researchers had a list of HIV protective strategies that had been mentioned previously by other youth. These twenty-two strategies were read and youth were asked to rate their level of agreement with each statement. Ratings were scored on a scale from 1 (strongly disagree) to 5 (strongly agree). An example of a protective strategy is "I can protect myself from AIDS by being careful about partners, seeing if they're clean and decent."

HIV and AIDS Awareness. Youth rated how much they knew about AIDS prevention (a little, some, a lot) and whether they wanted to know more about AIDS prevention (yes, no). Lastly, youth were asked about events in their lives that may have influenced their risk behavior. These questions included whether they knew people who had died from AIDS, whether they had themselves been tested for HIV, and whether they had had PIE program contact.

Analysis

Differences in demographic and behavioral characteristics, and in beliefs about HIV infection were examined using bivariate analyses. Statistical significance was tested across sub-groups by performing a chi-square test for categorical variables and a one-way analysis of variance (ANOVA) for continuous variables.

To determine if youth differ on their endorsement of HIV protective strategies, the sample was divided into five mutually exclusive risk groups based on reported sexual and drug injection behaviors. The criteria for each group and the percentage of youth comprising each group are as follows:

Not sexually active in the 3 months prior to interview and not sharing injection equipment in the prior 2 months--21% (n = 56).

Single main sex partner (SMP) are youth who have had sex with one main partner in the 3 months prior to the interview--20% (n = 53). This group does not include young men who have sex with men, or youth who report having shared injection equipment in the 2 months prior to the interview.

No main partner (NMP) are sexually active, lesbian or heterosexual youth who do not have a single main partner (i.e., they either have more than one partner, or they are having casual one-time sexual encounters)--38% (n =

101). This group does not include young men who have sex with men or youth who report having shared injection equipment in the 2 months prior to the interview.

Young Men who have sex with men (YMSM) are sexually active male youth who have had sex with other men in the prior 3 months but have not shared injection equipment in the 2 months prior to the interview--16% (n = 42).

Injection equipment sharers (IES): have shared needles at least once in the 2 months prior to the interview--5% (n = 15).

RESULTS Youth Characteristics

The demographic characteristics of the youth are presented in Table 1. The 272 participants ranged in age from 13 to 22 years with a mean age of 18 years (SD = 2.13, n = 169) for male youth and 16 years (SD = 1.68, n = 103) for female youth. The sample was self-identified as 49% White/Anglo, 24% mixed race, 8% American Indian/Native American, 6% Black/African American, 5% Asian/Pacific Islander, and 6% Latino/Hispanic. Youth sexual orientation was diverse with 61% identifying themselves as heterosexual, 20% as homosexual, and 17% as bisexual.

TABLE 1

Homeless Youth Characteristics

Entire

Sample Female

(N = 272) (n = 103)

Variable N % n %

Age group

13-15 77 20.9 32 31.1

16-18 137 50.4 61 59.2

19-21 68 25.0 9 8.7

22-23 10 3.7 1 1.0

Gender

Male 169 62.1

Female 103 37.9

Ethnicity (self-reported)

Black/African American 17 6.3 11 10.7

Latino/Hispanic 15 5.5 8 7.8

Other 8 2.9 4 3.9

Asian/Pacific Islander 13 4.8 4 3.9

American Indian/Native American 22 8.1 5 4.9

White/Anglo 133 48.9 51 49.5

Mixed ethnicity (reported more

than one) 64 23.5 20 19.4

Sexual Orientation

Heterosexual 166 61.0 63 61.2

Homosexual, Gay or Lesbian 53 19.5 17 16.5

Bisexual 46 16.9 20 19.4

Transexual/Transgender or none of

the above 7 2.6 3 2.9

Victimization while on the streets:

Beaten up 95 34.9 32 31.1

Sexually assaulted 53 19.5 31 30.1

Propositioned to sell sexual favors 111 40.8 48 46.6

Robbed 105 38.6 34 33.0

Threatened with a gun or other weapon 120 44.1 42 40.8

Shot at 82 32.1 22 21.4

Length of time homeless

less than or equal to 90 days 105 38.6 42 40.8

91-365 days 66 24.3 26 25.2

1-3 years 37 13.6 11 10.7

> 3 years 64 23.5 24 23.3

Male

(n = 169)

Variable n %

Age group

13-15 25 14.9

16-18 76 45.0

19-21 59 34.9

22-23 9 5.3

Gender

Male

Female

Ethnicity (self-reported)

Black/African American 6 3.6

Latino/Hispanic 7 4.1

Other 4 2.4

Asian/Pacific Islander 9 5.3

American Indian/Native American 17 10.1

White/Anglo 82 48.5

Mixed ethnicity (reported more than one) 44 26.0

Sexual Orientation

Heterosexual 103 60.9

Homosexual, Gay or Lesbian 36 21.3

Bisexual 26 15.4

Transexual/Transgender or none of the above 4 2.4

Victimization while on the streets:

Beaten up 63 37.3

Sexually assaulted 22 13.0

Propositioned to sell sexual favors 63 37.3

Robbed 71 42.0

Threatened with a gun or other weapon 78 46.2

Shot at 60 35.5

Length of time homeless

less than or equal to 90 days 63 37.3

91-365 days 40 23.7

1-3 years 26 15.4

> 3 years 40 23.7

Street Experiences Most youth reported living situations that were diverse and unstable: 81% reported that they did not live with their parents at all; 14% reported living with one or both parents some of the time, and 4% lived at home full-time, although they were street-involved. Most of the youth (70%) had lived with their parents before living on the street. In the week prior to being interviewed, 22% had stayed in 2-3 different places with the majority staying part-time with friends, relatives, at a shelter or mission, and on the street or some other place (e.g., a park). For youth who stayed in one place in the prior week, 19% reported staying in shelters and 15% staying with friends. Median length of time "on the streets" was one year for both male and female youth.

Victimization was high among these 272 youth. While living on the streets or while street-involved, 35% (95 youth) had been beaten up at least once, 47% (48 youth) of the female youth and 37% (63 youth) of the male youth had been propositioned to sell sex. Almost one-third of the female youth (31) and 13% of the male youth (22) reported having been sexually assaulted. Thirty-nine percent (105 youth) had been robbed, 44% (120 youth) had been threatened with a gun or other weapon, and 30% (82 youth) had been shot at.

Alcohol and marijuana use as reported in Table 2 was very high. Over 50% of the youth reported smoking marijuana at least once a week; of these, half were smoking almost daily. Almost 80% of the youth had used alcohol in the three months prior to being interviewed. Frequency of use was lower for harder drugs, with a range of 10-56% using in the prior three months and 3.3 to 14.3% using at least once a week.

TABLE 2

Percentages of Drug Use

Frequency in Last 3 Months

Once or
Twice in Once or
Not in Last Last Twice per
Drug Type 3 Months 3 Months Week Almost Daily

Beer/Wine	20.6%	37.1%	25.7%	15.8%
Hard Liquor	50.0%	28.7%	15.4%	5.1%
Marijuana	26.1%	20.2%	23.9%	29.8%
Cocaine	81.9%	14.7%	2.2%	1.1%
Heroin	89.7%	5.1%	2.2%	2.9%
Amphetamines	66.5%	19.1%	8.8%	5.5%
LSD	54.0%	33.8%	7.0%	4.4%

Note. Row percentages may not total 100% due to rounding error.

Self-Reported AIDS Knowledge Over 66% of the youth stated that they knew "a lot" about AIDS prevention, 27% knew "some" and only 6% of the youth stated that they knew "a little" about AIDS prevention. Sixty-two percent of the youth said that they would like to know more about AIDS prevention.

HIV Risk Behaviors

Only 21.3% (58 youth) had not had sex in the past three months; of those, six youth had never had sex (2.2% of total; Table 3). Male youth who were sexually active reported a median number of two partners in the prior three months, while for female youth the median was one. An examination by partner type (main, casual, client) shows that although the medians do not appear to differ greatly by sex, there was a much wider range of number of partners for males than for females (Table 3). Half of the female youth (49%) reported having only one partner in the past three months with the maximum being nine partners reported by one female youth. In contrast, only 37% of the male youth reported having one partner and eight male youth reported between 10-100 partners in the prior three months.

TABLE 3

Number of Sex Partners in Last 3 Months

Main Casual Client

Male Youth			
M	0.93	2.53	1.46
SD	1.06	5.39	9.37
Mdn	1.00	1.00	0.00
N	135	134	134
Female Youth			
M	1.09	1.00	0.00(*)
SD	0.81	1.49	0.25
Mdn	1.00	0.00	0.00
N	80	80	80
Total			
M	0.99	1.96	0.93
SD	0.98	4.42	7.44
Mdn	1.00	1.00	0.00
N	215	214	214

Note. Total N reflects only those having sex in the 3 months prior to interview.

(*) Two women reported having client partners (one had one partner, the other had two partners).

Of the 103 female youth interviewed, 101 of them had had sex. Of these sexually active women, 36 youth (36%) had been pregnant at least once. Pregnancy rates are informative because they help us to further understand the life circumstances and experiences of these youth, and because youth who are getting pregnant are not using condoms. Thus these women not only are themselves at risk for HIV infection, but they risk infecting their child. Youth reporting previous pregnancies ranged in age from 14 to 19, with a median age of 16. Of those who were ever pregnant, almost half (44%) had been pregnant in the last three months. The majority reported a single pregnancy, but 17 youth had had more than one pregnancy (1 youth had had 5 pregnancies). Fourteen youth had carried a child to term but none of these children were living with them. Fifteen youth (out of the total 101) reported that they had at some time tried to get pregnant and four youth were currently trying to get pregnant. Similar rates of sexual activity occur in the male youth. Of the 169 male youth interviewed, 165 had had sex at least once. Of these 165, 36 (21.8%) reported fathering a child. Youth reporting having fathered a child ranged in age from 14 to 22 with a median age of 18. The median number of children fathered was 1, but 13 youth had fathered more than one child (7 had fathered 2, 3 had 3, and 3 had fathered 4 children). No male youth reported that his child (ren) currently lived with him.

Rates of sexually transmitted disease (STD), like the pregnancy rates, help convey youth's experiences as well as their risk for being infected with HIV. Of the 266 youth who were sexually active, 55 (21%) reported having had at least one STD. Chlamydia was the more frequently reported STD (19 youth). Reported at lesser frequency were herpes (7 youth), gonorrhea (5 youth), hepatitis (3 youth, all who inject drugs), and genital warts (2 youth).

Sharing needles is considered one of the highest HIV risk behaviors. Of the 62 youth who told us they had at some point in their lives injected drugs, 20 said that they shared needles at least once in awhile. Thirteen had shared needles within the month prior to the interview.

HIV Protective Behaviors

Condom Use. Ninety percent of youth who had ever had sex reported that they had used condoms at least once. Female youth were less likely than male youth to report having ever used condoms (84% and 94%, respectively; $p = .02$). However, when asked about condom use for particular types of sex (vaginal, anal and oral), a more complicated picture emerges. Although youth reported relatively high rates of condom use with vaginal and anal sex (Table 4), there are still a substantial number of youth never using condoms during vaginal sex with their main partners (27%) and with their casual partners (11%). Using condoms/protection during oral sex is very low with main partners (65% never using) and with casual partners (48% never using).

TABLE 4

Sexual Behavior and Condom/Protection Use

Engaged in
Behavior in Last Never Uses Condoms/
3 Months Protection
N % n %

Main Partner Sex
Vaginal 120 44.1 33 27.3
Oral 106 39.0 70 65.4
Anal 30 11.0 9 30.0
Casual Partner Sex
Vaginal 85 31.3 10 11.6
Oral 92 33.8 44 47.8
Anal 29 10.7 3 9.7
Client Partner Sex
Vaginal 4 1.5 0
Oral 6 2.2 2 28.6
Anal 6 2.2 0

Always Uses Condoms

Protection
n %

Main Partner Sex

Vaginal 50 41.3
Oral 19 17.8
Anal 18 60.0

Casual Partner Sex

Vaginal 50 58.1
Oral 18 19.6
Anal 20 64.5

Client Partner Sex

Vaginal 3 75.0
Oral 3 42.9
Anal 6 100.0

HIV Protective Strategies We examined how beliefs about HIV protective strategies varied by behavioral risk group (not sexually active, SMP, NMP, YMSM, IES). This information can suggest areas of general misconception among all of the youth, or just for a particular subset. In general the groups' beliefs were very similar, but there were some interesting exceptions. All youth seem to understand the importance of using condoms. Regardless of risk group, all youth "strongly agree" with the belief that using a condom during sex helps protect oneself from AIDS.

In contrast, when asked if they agreed with the statement, "I can protect myself from HIV by not allowing cum in myself or in my mouth," the young men who have sex with men group (YMSM) appears to have received and understood this message (evidenced by high mean and small confidence interval), whereas the other risk groups have varying levels of agreement (evidenced by lower means and wider confidence intervals; see Figure 1). Results from an ANOVA with pairwise comparisons show that YMSM's agreed with this statement significantly more than SMP and NMP groups (p 's [is less than] .05). Similarly, YMSM's were less likely to endorse folk wisdom strategies that may or may not be effective in reducing their chances of getting AIDS. For example, being careful about one's partners (seeing if they are clean and decent) is a good thing, but it is not clear how much this will protect one from getting HIV from that partner. Yet many youth in both the SMP and NMP groups endorse this strategy.

[ILLUSTRATION OMITTED]

All groups of youth did agree with strategies that may not be effective for this population. For example, to the degree that one has a trusting, monogamous relationship with a partner, talking with that partner and having that partner get tested for HIV are both good ways to protect oneself from getting AIDS from that partner. But given that these are adolescents without much stability in their daily lives and relationships, this is a potentially dangerous strategy.

HIV and AIDS Awareness

Only 34% of the youth did not know anyone living with AIDS or HIV positive, whereas 23% knew one person, 10% knew two, and 33% of the youth knew three or more people who were currently living with AIDS. Fifty-seven percent of the youth did not know anyone who had died from AIDS, 19% had known one person, and 24% had known two or more people who had died from AIDS.

Changes Over Time

The baseline ($n = 90$), Time 2 ($n = 94$) and Time 3 ($n = 88$) data samples are demographically very similar. There are no significant differences in age, ethnicity, length of time on streets, or victimization. Due to small sample sizes, we cannot examine risk group differences over time.

Condom Use. The proportion of youth who had ever used condoms was very high at baseline measure (93%) and remained high in the Time 2 and Time 3 measures (85% and 92% respectively). Youth also

said that they would be likely to use condoms in the future: 84% at baseline, 80% in Time 2 and 90% in Time 3. Clearly the youth are receiving the message that condom use is important.

HIV Testing. One of the primary goals of PIE was to increase the number of street youth being tested for HIV. Indeed, there was an increase in the proportion of youth who have been tested for HIV over the course of the study. At baseline, 76% of the youth had been tested for HIV, 44 of them in the last 6 months. At Time 2, 73% of the youth had been tested, 45 of them in the last 6 months. At Time 3, 83% of the youth had been tested, 69 of them in the last 6 months ($p = .11$).

A full one-third of the youth in our final measurement had been tested at PIE testing sites specifically designed for street involved youth testing. Accompanying this increase in testing, there was an increased awareness of PIE over time (p [is less than] .05), and an appreciation for the impact these youth feel it is having. Thus PIE has had a significant impact, being recognized by 86 of the 272 youth interviewed and increasing their likelihood of being tested for HIV.

DISCUSSION

The picture for homeless youth in Seattle remains remarkably, and often disturbingly, the same over the two years of this study. Youth show areas of strength regarding their knowledge of protecting themselves from HIV infection, but clearly there is room for improvement in these youth's knowledge and beliefs about HIV and their subsequent behaviors. Almost half of these youth reported having at least two sex partners in the prior three months; many youth who reported having main partners also had casual sex partners.

Youth seemed aware of places they could go to receive HIV information. When asked whether they used condoms, many youth said "yes!" and then spontaneously pulled out a condom to show that they always carry them. Youth also knew the public health abstinence message "just say no," but when they were sexually active, as 79% of our sample was, their condom use was more problematic. Youth knew the importance of using condoms with vaginal and anal sex for clients and casual partners. But many youth did not use condoms with main partners stating that because they were in a primary relationship, they did not need to use condoms with this person. The disparity between the youth's long-term goals for the relationship and the short-term reality of most adolescent relationships makes this a potentially dangerous choice. Also, many youth did not use condoms or other protection during oral sex with main or casual partners. This behavior will also increase the likelihood of infection from HIV and other STDs.

Part of any picture of homeless youth must take note of the diversity within such a group. Interventions tailored for a particular population (e.g., homeless youth) are important, but we also need to recognize the differences within that population. As evidenced here, youth's knowledge and beliefs about HIV vary considerably depending upon their behavioral characteristics. Young men who have sex with men are well-educated with respect to behaviors that put them at risk for HIV infection (e.g., they understand the risks associated with allowing cum in oneself), and yet they still express interest in having more information. Youth in the single main partner and no main partner groups are more prone to use implicit theories of AIDS risk (e.g., seeing if a partner is clean and decent) and yet they express less interest in having more information. Future interventions should take these factors into account.

Although 66% of youth stated that they knew "a lot" about AIDS prevention and 38% of youth stated they did not want additional information, there are some gaps in youth's knowledge about HIV transmission. Most notable are the reduction in condom use once in a relationship with a main partner and the lack of condom use with oral sex.

It should be noted that all interviews were conducted in Seattle. Although some anecdotal evidence from youth agencies in Seattle suggests that homeless youth travel the West Coast corridor between Los Angeles, San Francisco, Portland and Seattle, our generalizations are geographically limited. These data are also from an evaluation of a program in process that was growing and adapting throughout the evaluation.

However, this snapshot of Seattle homeless youth can assist in creating a more detailed picture of homeless youth and help those interested in developing interventions for them anywhere. Clearly there is room for improvement in these youth's knowledge and beliefs about HIV and immediate intervention is

needed to address these important issues with the youth.

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