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# HIV testing among non-incarcerated substance-abusing juvenile offenders

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# Abstract

Juvenile offenders are a subgroup of adolescents at particular risk for HIV/STI infection. Although HIV prevalence among these youth is low (<1%) in the US, rates of other STIs, unprotected sexual activity, multiple partners, and incidents of substance use during sex are high compared with other adolescent populations. Many of these youth will enter the adult criminal justice system, which is known to have an extremely high rate of HIV infection. US constitutional mandates provide HIV/STI testing for incarcerated juveniles, but close to 80% of juvenile arrestees are never detained. Moreover, although they engage in similar HIV risk behaviors as those detained, they have limited access to available HIV/STI testing services. Thus, our study examined rates of lifetime HIV testing among a pilot sample of 60 court-involved, substance-using juveniles monitored in the community to explore rates of testing and the reasons related to lifetime testing among a high-risk, yet understudied US juvenile population.

# Keywords

HIV testing; juvenile justice; STIs

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# Introduction

Juvenile offenders are a subgroup of adolescents at particular risk for HIV/STI infection. Existing estimates of HIV prevalence among these youth suggest that rates of infection are low (<1%); however, rates of other STIs, unprotected sexual activity, multiple partners, and incidents of substance use during sex are high compared with other adolescent populations (1). Rates of chlamydia and gonorrhea among juvenile offenders range from 11% to 28%, depending on youth sex (female), race (African American), and severity of offense (more severe) (2). Constitutional mandates require access to medical testing, sexual health services, and treatment within correctional settings. However, court involved, non-incarcerated (CINI) juveniles, who represent close to 80% of arrested youth (3) and engage in similar sexual risk behaviors as detained juveniles (4), lack accessibility to sexual health services that are provided to confined juveniles. Additionally, there is limited information about the factors that influence a CINI youth's decision to get tested for HIV/STIs (e.g., availability of testing, perceptions of risk). Research suggests that parenting and family factors of CINI youth are associated with adolescent sexual risk behaviors (5), but our understanding of how similar factors may impact a juvenile's decision to get an HIV test is limited. Thus, our study aims to: 1) provide a preliminary snapshot of rates of lifetime HIV testing among a pilot sample of 60 substance-using, CINI juveniles, and 2) explore individual and family factors that may be associated with juveniles' endorsement of lifetime HIV testing.

#### Materials and methods

#### **Participants**

Sixty adolescents (M age=16 years; 70% male) monitored through the juvenile services department of a Northeastern Family Court provided baseline data, as part of a pilot efficacy trial of a family-based HIV prevention intervention for substance abusing juvenile offenders. English-speaking adolescents enrolled in the Juvenile Drug Court program or who reported recent marijuana use (usage of at least three times in the past 30 days) were eligible. Audio Computer-Assisted Self-Interviews (ACASI) were completed at a site separate from the court to ensure privacy. The Lifespan Institutional Review Board approved all study protocols.

#### Adolescent self-report measures

*Demographics* included adolescent age, gender, race, ethnicity, socioeconomic status (SES). *HIV testing behaviors* included self-report of lifetime HIV testing ("Have you ever been tested for the HIV virus that causes AIDS?"), receipt of HIV results (yes/no), primary testing site and where they received their information about HIV (e.g., from friends, family, school, therapist and/or doctor). *Sexual risk behavior* was assessed using a pattern of self-report items found reliable and sensitive to change in other adolescent populations (6), including having ever engaged in sexual intercourse, condom use at last sex, and total number of sexual partners (past 90 days). *Substance use* included lifetime and recent (past 30 days) use of alcohol and/or marijuana. *Individual HIV knowledge and HIV prevention and condom use self-efficacy* were assessed through empirically supported HIV knowledge and self-efficacy scales (7). *Knowing anyone who had died from HIV/AIDS* was assessed

using a yes/no item. Finally, *parenting and family factors* included scales of adolescent's perception of parental monitoring (8), parent-child general communication (e.g., about curfew, homework, friends) (9), parent-child sex-specific communication (10), and positive parenting (the extent to which parents' provide warmth and praise) (11).

#### Data analysis

T-tests and  $\chi^2$ -tests were conducted to ascertain differences between those tested/not-tested for HIV on the aforementioned variables of interest.

# Results

Of the 60 juveniles, 13 (22%) reported lifetime HIV testing and 85% reported receiving their results. The primary testing site was the doctor's office (n=7), but also included Planned Parenthood (n=3), other health clinics (n=2), hospital emergency room (n=1), and another research study (n=1). All tested youth reported receiving HIV-related information from their doctor vs. family, friends, or school. Of the 60 participants, 5% (n=3) reported having ever been told by a doctor or nurse that they had any STI and of those, 2 reported lifetime HIV testing. Of those who reported lifetime sexual activity (m=44), 11% (3 males and 2 females) reported getting pregnant/getting someone pregnant; and, of those, 2 reported lifetime HIV testing (1 male and 1 female). Two juveniles endorsed knowing someone with HIV/AIDS, and both reported lifetime HIV testing.

Table 1 presents comparisons of those who did (n=13) and did not get tested for HIV (n=47). Lifetime HIV testing was associated with being of a racial or ethnic minority background and lifetime oral, vaginal, or anal sexual intercourse. A higher proportion of females endorsed testing. Substance use and the number of recent sexual partners did not differentiate those tested vs. those who were not tested. HIV knowledge differentiated testers from non-testers, such that those not tested had greater HIV knowledge than those who were tested. Finally, with respect to parenting/family factors, juveniles who discussed a greater number of *sexual health* topics with their parents were more likely to have been tested. Parent-child general communication, parental monitoring, and positive parenting were not associated with lifetime testing.

# Discussion

Rates of HIV testing were low among this adolescent population with documented high rates of unprotected sexual activity resulting in other STIs and unplanned/unwanted pregnancies. High recidivism rates suggest that these are youth at increased odds of being part of the adult criminal justice system, in which one of every seven HIV-infected adults passes through annually. Rates of substance use (especially marijuana) were high, but were not associated with having been tested. Girls and those who have engaged in sexual intercourse were more likely to get tested, which may be related to accurate perceived greater vulnerability of contracting HIV. Additionally, having been tested did not translate into having more HIV knowledge. It may be that having more HIV knowledge is associated with reduced perceived vulnerability and lack of testing or accurate appraisal of risk for HIV given knowledge of how one can contract HIV. Ultimately, for these youth, *access* to a medical provider who can

give them information about HIV/AIDS and having *parents who speak* with their teens specifically about sexual health topics were both associated with HIV testing. Non-specific parenting approaches to communication, monitoring, and positive reinforcement may not relate to increased rates of HIV testing for these youth. Interventions and policy messages should thus be geared towards sex-specific content in order to affect uptake of HIV testing.

### Implications and contribution

Identifying ways to increase rates of HIV testing among substance-abusing, nonincarcerated juvenile offenders deserves further research. Promising approaches include family-based interventions and programs that target key structural factors, such as increasing access and availability of sexual health services for court-involved youth. From a prevention research standpoint, studies that aim to identify efficacious individual, family and/or systems (e.g., court, public health) approaches to increasing access to and provision of HIV testing services among substance-using CINI juveniles are warranted given the low testing rates found here and the previously documented high rates of HIV among adult incarcerated populations.

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# Table 1

Differences between juveniles HIV tested and non-tested (n = 60).

	Tested (n=13)	Not tested (n=47)	t orX2
	n (%) or M (SD)	n (%) or M (SD)	
Demographics			
Age (years)	15.76 (1.48)	15.57 (1.21)	t (58)=0.48
Gender (% female)	6 (46%)	12 (26%)	X2 (1,n=60)=2.06
Race (% Caucasian)	6 (55%)	29 (73%)	X2 (1,n=60)=7.4 <sup>a</sup>
Ethnicity (Latino)	2 (15%)	10 (21%)	X2 (1,n=60)=0.77
SES (% 30k annually)	7 (54%)	18 (39%)	X2 (1,n=60)=0.90
Sex and substance abuse			
Ever had vaginal, anal or oral sex (% yes)	13 (100%)	37 (79%)	X2 (1,n=60)=3.32 <sup>a</sup>
Condom use at last sex	9 (75%)	21 (64%)	X2 (1,n=60)=0.51
Number of partners (past 90 days)	2.2 (2.2)	1.8 (1.5)	t (41)=0.60
Ever used alcohol (% yes)	( %69) 6	38 (81%)	X2 (1,n=60)=0.81
Ever used marijuana (% yes)	12 (92%)	42 (89%)	X2 (1,n=60)=0.10
Knowledge and self-efficacy			
HIV knowledge (# items correct)	9.20 (4.93)	12.02 (4.75)	t (51)=0.7 <sup>a</sup>
Condom use self-efficacy	47.90 (9.89)	46.52 (9.50)	t (51)=0.68
Family factors			
Parent-child communication about sex (# of topics discussed)	2.23 (1.09)	1.37 (1.14)	t $(57)=2.42^{b}$
Positive parenting	11.77 (3.32)	11.59 (3.79)	t (57)=0.88
Notes:			
$a^{a}_{P<0.10}$ (rend)			
b p<0.05.			