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HIV Prevention for Juvenile Drug Court Offenders: A Randomized Controlled Trial Focusing on Affect Management

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Abstract

Background—Juvenile drug court offenders have benefited from evidence-based interventions addressing antisocial behavior, mental health and/or substance use; however, interventions addressing HIV risk behavior are lacking. This study presents pilot findings and lessons learned from a group-based HIV prevention intervention delivered to juvenile drug court offenders.

Methods—Participants were randomized to a 5-session HIV Prevention ($n=29$) or Health Promotion ($n=28$) condition and completed measures of sexual risk taking and substance use at baseline and 3 month post-intervention.

Results—No between-group differences by time emerged on measures of sexual risk-taking or other HIV-related behaviors and attitudes. Both groups improved their rates of HIV testing and decreased their substance use during sex over time.

Conclusions—Delivering an HIV prevention intervention to drug court offenders is feasible; however, more intensive interventions that incorporate multiple systems and address co-occurring mental health difficulties may be needed to affect sexual behavioral change among these high-risk court-involved youth.

Keywords

juvenile drug court; HIV prevention; sexual risk; affect management

Background

HIV Risk among Juvenile Offenders

Adolescents either re-entering the community from detention or those diverted from incarceration through specialty court programs, such as juvenile drug courts, represent a

significant public health concern for the spread of Human Immunodeficiency Virus (HIV) and other Sexually Transmitted Diseases (STD) (Elkington et al., 2008; Teplin, Mericle, McClelland, & Abram, 2003). For instance, compared with the total US population of same age, the incidence for gonorrhea is 152 times and 42 times higher among confined juvenile females and males, respectively (ADD NIJ/CDC reference here). These STDs spread quickly due to young offenders engaging in sex at earlier ages, having greater rates of unprotected sex, having more partners (Canterbury et al., 1995; Morris et al., 1995; Teplin, Abram, McClelland, Dulcan, & Mericle, 2002), using more substances in general and with sex (Castrucci & Martin, 2002; Johnston, O'Malley, & Bachman, 2002; Kingree & Betz, 2003; Teplin et al., 2003; The National Center on Addiction and Substance Abuse at Columbia University, 2004) and having higher rates of mental health disorders (Teplin et al., 2005) than their non-offending peers. Adolescents in re-entry or diversion have the same risk factors as incarcerated youth (Tolou-Shams, Paikoff, McKirnan, & Holmbeck, 2007), but have greater opportunities to engage in high risk behaviors and often repeatedly go back and forth between detention and community. Yet, most public health interventions (e.g., substance abuse, mental health) have been implemented with detained youth and very few of those have focused or incorporated HIV prevention (Tolou-Shams, Stewart, Fasciano, & Brown, 2010). HIV prevention interventions that target non-incarcerated, but court-involved youth, such as juvenile drug court offenders, are therefore still needed for this high-risk population.

Juvenile Drug Court Offenders and HIV Risk

Intervening with juvenile drug court offenders, in particular, is of great importance. The links between alcohol and drug use, mental health disorders, high-risk sexual behaviors and delinquency are well-established (Kotchick, Shaffer, & Forehand, 2001). In addition to high rates of documented mental health disorders in general populations of juvenile offenders (Grisso, 2008), some studies have demonstrated similar high rates of psychopathology in juvenile drug court offender subgroups (e.g., Henggeler, Clingempeel, Brondino, & Pickrel, 2002) suggesting that youth sent to diversion programs are at equivalent risk for poor outcomes as their more criminally involved peers. Across the United States, there are currently 476 operating juvenile drug court programs (National Association of Drug Court Professionals, 2010). Youth enrolled in these programs are typically being diverted from detention or incarceration and more intensive substance abuse treatment facilities, which is linked to reduced burden and costs to communities, schools, mental health, legal and medical systems nationwide. Data across several studies suggest that drug courts reduce recidivism and as a result prove themselves to be cost-effective (e.g., Gonzales, Schofield, & Schmitt, 2006; Wilson, Mitchell, & MacKenzie, 2006).

Moreover, this subgroup of high-risk youth may also be more amenable to intervention than their detained or incarcerated peers. First, they are typically first-time offenders and therefore not yet entrenched within the legal system (and thereby not yet committing serious, violent crimes). Given this, the juvenile drug court may be their first contact with the legal system and thus could be an opportune time to capture a group of high-risk youth who may be missed until they are eventually identified when later re-entering the system for having committed more severe crimes (i.e., when they become recidivists). Secondly, these high-risk youth still live and operate in their communities on a day-to-day basis with a continued opportunity to engage in high-risk behaviors (versus being detained or in a residential substance abuse treatment program) making risk-reduction interventions more relevant and salient. Finally, intervening with young offenders at this “teachable moment” in the system can potentially provide them with the HIV prevention knowledge and skills that they may not get if they re-enter the system as an incarcerated adult. This paper will

therefore briefly discuss the results of and lessons learned from delivering a small, pilot HIV prevention study with Juvenile Drug Court (JDC) offenders.

The PATH (Parents And Teens for Health) program

The PATH program was adapted from a group-based HIV prevention intervention originally developed for adolescents in a therapeutic school program that focuses on teaching youth affect management skills to reduce their HIV risk. Public health interventions specifically aimed at child and adolescent affect regulation have demonstrated significant effects on prevention of mental and behavioral problems (Bell & McBride, 2010). Affect management was a focus of the PATH intervention due to the high rates of psychiatric disorders among juvenile offenders (Teplin et al., 2002) typically characterized by severe affective and behavioral dysregulation. The group-based Affect Management Intervention (AMI) focused on addressing emotion regulation in risky situations with affect management skills (e.g., reducing anxiety in negotiating condom use with partners) and also targeted increasing motivation and HIV prevention skills similar to other successful prevention programs (see Johnson, Carey, Marsh, Levin, & Scott-Sheldon, 2003) for review). Adolescents were randomized either to the AMI or to the comparison condition, which was a general Health Promotion Intervention (HPI) matched for time and appeal and included psychoeducational content on substance use, HIV prevention, tobacco use, sleep hygiene, exercise, and diet. Both conditions consisted of five weekly, 2-hour sessions with approximately five participants per group, and used games and interactive activities. A research assistant and trained clinician, not affiliated with the JDC, facilitated each group at the JDC.

Methods

Participants

Adolescents (12-18 years old) were recruited from a northeastern JDC (a diversionary and post-plea, post-adjudication treatment program for nonviolent adolescents). Youth were approached for research participation by study staff not affiliated with the court after a referral was made by the drug court case manager and/or presiding judge. Of the 109 adolescents approached, 94 were enrolled and 57 completed the 3-month follow-up assessment. Participants were randomized into the AMI ($n = 29$) or HPI ($n = 28$) condition. Participants had a mean age of 16 years, 90% were male and the sample was predominantly Caucasian (76%), but included 14% African American youth, 8% multi or biracial youth and 2% Native Hawaiian/Pacific Islander. Eighteen percent of youth ethnically identified as Latino. The Hospital Institutional Review Board approved all study protocols. Assent and parental consent were obtained for those 12-17 years of age and informed consent from those who were 18. Interviews took one hour and were administered by Audio Computer-Assisted Self-Interview (ACASI) on laptop computers at a site separate from the JDC to ensure privacy.

Measures

Self-report measures included demographics, lifetime and recent (past 90 days) sexual risk behavior (e.g., condom use at last sex, number of partners, substance use during sex), attitudes and communication with partners regarding condom use (e.g., self-efficacy for condom use, condom beliefs; higher scores indicating more pro-condom beliefs and greater self-efficacy in using condoms), lifetime history of HIV testing, recent (past 30 days) substance use (cigarette use, frequency of alcohol and marijuana use), and *mental health symptoms*, as measured by the Youth Inventory-4 (Gadow & Sprafkin, 1994). Legal history and results of urine toxicology screens were collected from drug court records, as provided by case managers.

Data Analysis

Repeated measures analysis of variance (RM ANOVA) was conducted to examine between and within group differences between baseline and 3 months post-intervention assessment. Between-group adjusted effect sizes (ES) were calculated using formulas suggested by Durlak, 2009. Cohen's *d* was adjusted to account for bias due to small sample size and Odds Ratios (OR) were calculated for dichotomous data. Positive Cohen's *d* values and ORs less than 1.0 represent risk reduction in the AMI condition.

Results

Session attendance rates were 80% and 70% of the sample was retained from baseline to 3 month follow-up. The AMI and HPI conditions did not differ in the number of sessions attended ($M = 4$). Although non-significant, a higher proportion of HPI participants completed the drug court program by their three-month follow-up (54% versus 46% respectively; $p = .14$). The AMI and HPI conditions did not differ at baseline on any measures with the exception of a higher percentage of those in the AMI condition met screening criteria for ADHD, Hyperactive Impulsive subtype (21% versus 4%; $\chi^2 = 3.89$, $p = .05$). At baseline, 84% of the sample was sexually active in their lifetime and 61% reported recent (past 90 days) sexual activity with an average of one partner (range 1-8 partners) during that timeframe. Of those recently sexually active, 73% reported using a condom at time of last sex and 56% reported substance use during sex. Baseline self-efficacy in using condoms was high ($M = 21.96$, $SD = 3.08$; possible range of 6-24) and pro-condom beliefs were strongly endorsed ($M = 76.35$, $SD = 8.99$; possible range of 20-100). Prior to intervention, 58% reported telling their sexual partner that they wanted to use a condom during sex and slightly over one-quarter (26%) of juveniles reported lifetime HIV testing.

At 3 month follow-up (i.e., post-intervention), 90% reported lifetime sexual activity and 68% reported sexual activity in the past 90 days. Recently sexually active juveniles had an average of one sexual partner (range 1-5 partners) and 75% reported using a condom at time of last sex. Forty-four percent of the sexually active sample reported substance use just before or during sexual activity. Offenders' self-efficacy in using condoms remained stable and high ($M = 21.87$; $SD = 2.86$) and offenders continued to endorse pro-condom attitudes and beliefs ($M = 75.23$, $SD = 9.59$). Approximately two-thirds of the sample (65%) reported telling their sexual partner that they wanted to use a condom during sex and by 3 month follow-up, almost three-quarters of juveniles (74%) reported lifetime HIV testing.

No between-group differences emerged over time on measures related to risk except for a trend for increased recent partner condom communication among AMI participants ($F = 3.26$, $p = .08$; $d = .16$). There was a trend for both groups to decrease substance use with sex over time ($F = 3.22$, $p = .08$). The odds of using substances with sex in the AMI condition was approximately half that of those in the HPI condition ($OR = .45$). Effect sizes for sexual risk behaviors were small (d 's ranging from .02-.28 with some effects favoring greater, but not statistically significant, risk reduction in the HPI condition). There was a main effect of time for both groups reporting more HIV testing ($F = 8.07$, $p = .007$) and the odds of receiving HIV testing in the HPI condition was four times greater than in the AMI condition ($OR = .24$). In terms of substance use, there was a trend for both groups increasing their cigarette smoking over time ($F = 3.68$, $p = .07$; $d = -.12$). There were no within or between group differences on any other substance use variables (between group d 's ranging from .04-.07).

Lessons Learned

This study demonstrated the feasibility of developing and delivering an HIV prevention intervention to court-involved youth who are not institutionalized. Session attendance rates

were high and 3 month retention rates were on par or exceeded that of other published HIV prevention interventions with juvenile offenders (see Tolou-Shams et al., 2010). While most interventions are delivered to detained or incarcerated youth, this intervention was delivered in a method analogous to outpatient group therapy, directly within the courthouse setting; coordinating HIV prevention group times and dates with already scheduled court hearings was also critical to improving feasibility and retention. This intervention also required significant collaboration with and support from families, judges, court administrators and most importantly, drug court case managers. Asking the judge and/or case managers to make referrals to the intervention when the drug court already required so many other non-HIV related interventions to successfully complete the program (e.g., substance abuse counseling, family counseling, after school tutoring) meant working very closely with the court to balance the demands on youth to avoid overburdening families. Establishing rapport and trusting relationships with these stakeholders is essential to the programs' feasibility and success. Regular stakeholder meetings to gain input regarding intervention development, barriers and facilitators to recruitment as well as ideas for adolescent engagement and future HIV prevention programming was also of great importance.

Over time, all offenders decreased their substance use during sex, increased HIV testing behavior and there was a marginal intervention effect associated with the AMI on increasing partner communication about condom use. While these changes are encouraging for HIV risk reduction for juvenile drug court offenders, other hypothesized sexual and substance use behavioral changes associated with the AMI were not observed. Despite the small sample size, randomization led to balanced groups across critical study variables; however, the AMI group appeared to have higher rates of ADHD, which is not an uncommon diagnosis among juvenile justice youth, particularly as it co-occurs with conduct disorder (Grisso, 2008; Teplin et al., 2002) and may have differentially affected that group's ability to pay attention and effectively learn.

Study design issues may have also adversely affected outcomes. A small sample size in pilot studies decreases the power available to detect significant behavioral change; there were several group difference trends in this study, such as discussion about condom use with sexual partners and substance use during sex that may have represented significant behavioral shifts in the AMI condition had the sample size been larger. Many of these youth have little exposure to sexual health interventions. Thus, it is possible that the HPI condition in conjunction with JDC involvement, while designed as the "control" intervention, may have provided the teens with new knowledge and motivation to behave safely. It might be prudent to design a study with a no-intervention comparison. Many in the HPI received HIV testing after the intervention, perhaps providing greater motivation for sexual risk-reduction via pre/post counseling. Finally, the affect management strategies in the AMI may not have been sufficient to produce behavioral change.

Our data suggest that juvenile drug court youth engaged in continued high rates of sexual and substance use behaviors despite being in the drug court program. More intensive interventions are needed to change behavior. Interventions that are more integrated, addressing mental health difficulties in addition to health risk behaviors, may be warranted in a population that has significantly higher rates of psychiatric disorders. Prior evidence-based mental health and substance abuse treatments for juvenile offenders have also incorporated systems beyond the individual, such as the family and school. Thus, a family-based HIV prevention intervention may have greater success than an adolescent-only intervention. Understanding behavioral change could also be helped by more qualitative work to assess other factors and mechanisms that facilitate or impede sexual and substance use behaviors. Continued research is necessary, however, to determine effective HIV

prevention intervention modalities, content and mechanisms for long-term sexual behavior change among juvenile drug court offenders.

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