The Role of Substance Use in Adherence to HIV Medication and Medical Appointments

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Introduction

Adolescents and young adults ages 15 to 24 years constitute half of all new cases of HIV worldwide (Joint United Nations Programme on HIV/AIDS, 2009). In the United States in 2009, more than 8,000 new cases of HIV were diagnosed in youth ages 13 to 24 years (Centers for Disease Control and Prevention, 2011). Further, at the end of 2009, 16,743 cumulative cases of HIV were reported among New York City youth ages 13 to 24 years (New York City Department of Health and Mental Hygiene, 2011).

Adherence to HIV medications and adherence to HIV primary care appointments are necessary for good health in this population. Quarterly medical appointments are recommended to monitor CD^{4+} T-cell count, viral load (Dietz et al., 2010), and to address any unmet psychosocial needs among youth. Poor medication and medical appointment adherence has been associated with lower CD^{4+} T-cell counts, higher viral loads, and other factors such as substance use among youth (Dietz et al., 2010).

Substance Use and Youth with HIV

Research suggests that substance use is prevalent among youth infected with HIV (Naar-King, Kolmodin, Parsons, & Murphy, 2010). In a sample of 350 youth with behaviorally acquired HIV, researchers found that almost all of the youth smoked cigarettes, consumed alcohol, or used marijuana and other drugs (Rotheram-Borus et al., 2005). Research by Naar-King et al. (2010) found that alcohol and marijuana use was high among youth with behaviorally acquired HIV, but that other

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illegal drug use was not as prevalent. Among 186 behaviorally infected youth who had challenges with substance use, sexual risk behavior, or medication adherence, 47% used alcohol, 37% used cannabis, and 9% used other illegal drugs in the previous month (Naar-King et al., 2010). Further, sexual minority HIV-infected youth such as men who have sex with men may have had more problematic substance use than HIV-infected heterosexual youth (Naar-King et al., 2010). Research by VanDevanter et al. (2011) also demonstrated that substance use was prevalent in men who have sex with men with behaviorally acquired HIV and was associated with increased sexual risk behaviors.

Substance Use and Adherence

Research by Murphy et al. (2005) on 231 youth with behaviorally acquired HIV noted that medication adherence could be compromised by alcohol and other drug use. Research by Hosek, Harper, and Domanico (2005) also showed marijuana use to be a barrier for HIV medication adherence among youth. Further, a study of 104 perinatally and behaviorally infected youth demonstrated that illegal drug use was associated with medication nonadherence (Chandwani et al., 2012).

With respect to appointment adherence, research by Outlaw et al. (2010) on 82 racial and ethnic minority youth infected with HIV, the majority of whom were behaviorally infected, showed that alcohol use was the strongest predictor of suboptimal HIV appointment adherence. Research also showed that marijuana use was associated with more missed HIV appointments in behaviorally infected youth (Dietz et al., 2010).

Our in-depth qualitative study explored the context of alcohol and illegal drug use and its impact on adherence to HIV medication and medical care among male adolescents infected with HIV. Understanding these risks has important implications for designing appropriately tailored substance abuse treatment interventions for youth infected with HIV. These interventions could provide youth with the crucial skills to balance HIV medication and appointment adherence with substance use in social settings.

Methods

Study Design and Participants

The qualitative data presented here were collected as part of a large, primarily qualitative study designed to examine the life experiences of African American and Latino youth with behaviorally acquired HIV. The parent study ($N = 59$) included youth recruited by study staff or clinical staff at five adolescent HIV specialty clinics in the New York City metropolitan area. All recruitment sites provided comprehensive youth-focused HIV primary care, including mental health services and ancillary social services. Eligibility criteria for the parent study included: (a) age of 13 to 24 years, (b) infection with HIV (verified by the referring clinic), (c) cognitive competence to participate, and (d) HIV infection acquired from unprotected sex or injection-drug use.

Participants were recruited and interviewed between June 2004 and February 2007. There were no differences in participant response rates or demographic characteristics comparing those recruited by clinic staff or study staff (Siegel, Lekas, Olson, & VanDevanter, 2010). No refusals were reported; however, a few youth who agreed to participate dropped out of care and did not complete the interview. The study was approved by the institutional review boards at Columbia University and New York University and the referring clinics; it received a Federal Certificate of Confidentiality.

Data Collection and Measures

The study was primarily qualitative with a brief quantitative survey that used audio computer-assisted self-interviews to gather demographic and behavioral data. Sexual behavior and substance use survey questions were taken from the Youth Risk Behavior Survey. In-depth, semistructured, focused qualitative interviews captured data on the individual's life prior to HIV diagnosis, as well as the individual's experience of living with HIV infection. A qualitative focused interview guide was used to structure the interview. The guide covered topics related to the study aims, adaptive tasks, and coping strategies related to HIV diagnosis. Interviewers were public