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Multiple psychosocial health problems and sexual risk among African American females in juvenile detention: A cross-sectional study

Amy M. Fasula[a,*], Simone C. Gray[a], Rhyan N. Vereen[a], Monique Carry[a], Jessica M. Sales[b], Neetu Abad[a], Jennifer L. Brown[c], Andrea Swartzendruber[d], Deborah J. Gelaude[a]

[a] Division of HIV/AIDS Prevention, National Center on HIV/AIDS, Viral Hepatitis, STD and TB Prevention, Centers for Disease Control and Prevention, Atlanta, GA 30333, USA
[b] Department of Behavioral Sciences and Health Education, Rollins School of Public Health at Emory University, Atlanta, GA 30322, USA
[c] Department of Psychiatry & Behavioral Neuroscience, University of Cincinnati College of Medicine, 3131 Harvey Avenue, Suite 104, Cincinnati, OH 45229, USA
[d] Department of Epidemiology and Biostatistics, University of Georgia, Miller Hall, 101 Buck Road, Room 234, Athens, GA 30602, USA

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ABSTRACT

Objectives: African American girls in juvenile detention are disproportionately affected by sexually transmitted diseases (STDs) and other psychosocial health problems, yet few studies have examined associations between experiencing multiple psychosocial health problems and sexual risk behaviors and STD diagnosis.
Method: The study included 188 detained African American girls aged 13–17 years. We conducted three sets of logistic regressions. First, bivariate analyses assessed associations among seven psychosocial factors (substance use disorder; depression; post-traumatic stress disorder [PTSD]; emotional abuse; pregnancy coercion; physical abuse; and sexual abuse) and four outcomes (early sexual initiation; condomless sex; multiple sexual partners; self-reported STD) to examine their interrelationships. Second, we examined associations between experiencing multiple psychosocial factors and outcomes. Third, psychosocial factors were categorized into four domains: substance use disorder; mental health (depression, PTSD); psychological abuse (emotional abuse, pregnancy coercion); and violence (physical abuse, sexual abuse) and included as independent associations with each outcome to assess their relative importance.
Results: Multiple interrelationships among psychosocial factors and outcomes were identified. An increase of one psychosocial health problem was associated with an 18% to 27% increased odds of sexual risk behaviors or a previous STD diagnosis. Reporting violence was associated with increased odds of having multiple partners (odds ratio = 3.31; confidence interval = 1.57–6.97), and experiencing psychological abuse was associated with increased odds of reporting an STD diagnosis (odds ratio = 3.95; confidence interval = 1.62–9.63).
Conclusion: Multiple psychosocial health problems, particularly psychological abuse and violence, are associated with sexual risk and STDs in this vulnerable population.

1. Introduction

Adolescent girls in juvenile detention experience some of the highest rates of sexually transmitted diseases (STDs) (Centers for Disease Control and Prevention, 2011). For instance, in 2011, the chlamydia positivity in juvenile detention facilities among females 12 to 18 years was 15.7%, whereas the positivity in family planning clinics among 15 to 19 year olds was 9.8%. Additionally, adult women in the correctional system, who may have been involved in the juvenile justice system as minors, have higher rates of STDs and HIV than their non-incarcerated peers (Centers for Disease Control and Prevention, 2011; Spaulding et al., 2009). Addressing the sexual health needs of African American girls involved in the juvenile justice system is of particular importance. African American girls are disproportionately represented in the juvenile justice system (Sickmund & Puzzanchera, 2014), and they experience health disparities in STDs (Centers for Disease Control and Prevention, 2017), both of which are influenced by social contextual factors, including poverty, discrimination, and access to services (Adimora & Schoenbach, 2005; Development Services Group, 2014; Hallfors, Iritani, Miller, & Bauer, 2007).

Abbreviations: STDs, sexually transmitted diseases; PTSD, post-traumatic stress disorder; WIC, women, infants, and children

* Corresponding author at: Division of Reproductive Health, Centers for Disease Control and Prevention, 4770 Buford Highway MS F74, Atlanta, GA 30341-3717, USA.
E-mail addresses: afasula@cdc.gov (A.M. Fasula), zqv6@cdc.gov (S.C. Gray), rhyan.vereen@alumni.emory.edu (R.N. Vereen), kju8@cdc.gov (M. Carry), jmcderm@emory.edu (J.M. Sales), vjx3@cdc.gov (N. Abad), jennifer.brown2@uc.edu (J.L. Brown), aswartz@uga.edu (A. Swartzendruber), zoi1@cdc.gov (D.J. Gelaude).

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The higher STD and HIV rates among girls involved in the juvenile justice system may, in part, be related to higher rates of sexual risk behaviors than their peers, including: early sexual initiation, inconsistent condom use, and having multiple sex partners (Romero et al., 2007; Teplin, Mericle, McClelland, & Abram, 2003; Voisin, Neilands, Salazar, Crosby, & Diclemente, 2008). However, we argue that a deeper understanding of the complex psychosocial context of sexual risk may help address the sexual health disparities for this vulnerable population. In an effort to move beyond an individual risk behavior approach to the HIV epidemic in disadvantaged populations, Singer (Singer & Clair, 2003) proposed the concept of a "syndemic." "[A] syndemic is a set of closely intertwined and mutual enhancing health problems that significantly affect the overall health status of a population within the context of a perpetuating configuration of noxious social conditions (Singer & Clair, 2003 p 99)." Singer used the syndemic concept to explain how violence, substance abuse, and HIV are mutually reinforcing and driven by underlying social circumstances of disadvantaged populations, such as those living in poverty in inner cities.

Youth involved in the juvenile justice system often have a complex array of psychosocial factors that impact their lives and their sexual health. These adolescents are often exposed to family and community traumas (Foy, Ritchie, & Conway, 2012; Odgers, Robins, & Russell, 2010), including emotional, physical, and sexual abuse (Goodkind, Ng, & Sarri, 2006; King et al., 2011; Krischer & Sevecke, 2008), as well as high rates of other psychosocial health problems, including substance use disorders (Substance Abuse and Mental Health Services Administration, 2004; Teplin et al., 2005), and mental health disorders (Elkington et al., 2008; Fazel, Doll, & Langstrom, 2008; King et al., 2011). For instance, a nationally representative study found substance abuse or dependence to be nearly three times higher for youth who had ever been in jail or a detention center than those who had not (Substance Abuse and Mental Health Services Administration, 2004). A systematic literature review on sexual risk factors among youth involved in juvenile justice identified evidence supporting associations between each of these psychosocial health outcomes and sexual risk, but concluded that additional research is needed to explore their interrelationships and combined effects on sexual risk (Voisin, Hong, & King, 2012).

Adolescent girls in the juvenile justice system often experience a co-occurrence of childhood traumas, substance abuse, and mental health problems (Foy et al., 2012; Guthrie, Cooper, Brown, & Metzger, 2012; King et al., 2011). Previous studies among youth involved in the justice system and in the general population indicate an additive or "dose-response" relationship between the number, frequency, and/or severity of adverse childhood experiences, such as abuse and neglect, and sexual risk (Anda et al., 2001; Anda et al., 2002; Naramore, Bright, Epps, & Hardt, 2017). These studies, however, do not examine the combined effects of abuse and other psychosocial factors, such as adolescent substance abuse and mental health problems. Studies with adolescent and adult gay, bisexual and other men who have sex with men using a range of psychosocial health problems, including substance use and mental health problems, found a dose-response relationship between the number of psychosocial health problems experienced and HIV infection and sexual risk behaviors (Mustanski, Garofalo, Herrick, & Donenberg, 2007; Stall et al., 2003). To our knowledge, no studies have examined the dose-response relationship between experiencing multiple psychosocial health problems and STIs and sexual risk for girls involved in the juvenile justice system.

To help fill this gap, our aim was to examine how experiencing multiple, co-occurring psychosocial health problems may contribute to persistent disparities in sexual health for adolescent African American girls in juvenile detention. In the current study, we assess the interrelationships between seven psychosocial factors (substance use disorder; depression; post-traumatic stress disorder [PTSD]; emotional abuse; pregnancy coercion; physical abuse; and sexual abuse) and four sexual health outcomes (early sexual initiation; condomless sex; multiple sexual partners; self-reported STD). Specifically, using a sample of adolescent African American girls in juvenile detention, we examine the co-occurrence of the psychosocial factors and sexual health outcomes, and whether there is a dose-response relationship between experiencing multiple psychosocial factors and sexual risk outcomes. We hypothesized that: H1) psychosocial health problems will be associated with one another and with sexual risk behaviors and STDs; and H2) as the number of psychosocial health problems experienced increases, the odds of sexual risk behaviors and STDs will increase. Additionally, to provide guidance for intervention efforts, we grouped the psychosocial health problems into four domains (substance use disorder symptoms, mental health disorder symptoms, psychological abuse, and violence) and explored the independent associations of each domain on sexual risk behaviors and STDs to assess their relative importance.

2. Methods

2.1. Participants

Baseline data were used from a sample of African American adolescent girls in a short-term juvenile detention facility in Atlanta, Georgia. Participants were recruited for an efficacy study of a culturally- and gender-specific HIV/STD risk-reduction intervention for detained adolescent African American girls. Eligible participants were 13 to 17 year old girls who self-identified as African American and reported having ever willingly had vaginal intercourse. Girls who were pregnant, married, Wards of the State of Georgia, or would be released to a restricted location such as a group home, were considered ineligible. From March 2011 to February 2012, African American women study team members (not employed by the detention facility) confidentially screened potentially eligible adolescent girls. Of the 393 screened, 191 did not meet inclusion criteria and 14 declined to participate; 188 were enrolled in the study. Written informed assent was obtained from adolescents and verbal consent was obtained from parents/guardians. While in the detention facility, trained study team members facilitated participants' use of an audio computer-assisted self-interview (ACASI) to complete the survey assessments. Given the sensitive nature of the study topics, participants were reminded that they could skip any questions they did not want to answer. Also, all study team members were at least Master's level students who were highly trained regarding protocols for handling distressed participants. Finally, a clinical psychologist was on-call during data collection in the event that a participant was in need of immediate connection to a trained health professional. Participants were not compensated for their participation while in the detention facility; they were compensated for intervention sessions and assessments completed after their release. The Emory University Institutional Review Board approved all study protocols and the Centers for Disease Control and Prevention approved the study procedures. For further details on the study methods, refer to (DiClemente et al., 2014).

2.2. Measures

2.2.1. Demographics

Participants self-reported demographic characteristics including: age, last grade completed, number of times in a detention center, having been thrown out or run away from home for at least one night in the past 12 months, who they lived with, and household receipt of assistance program(s) in the previous 12 months (yes for any of the following: Welfare [including, Temporary Assistance to Needy Families]; Food stamps; WIC [Women, Infants, and Children]; and/or Section 8 housing [housing subsidies]).

2.2.2. Psychosocial health problems

To count the number of psychosocial health problems experienced