Early Onset of Sexual Intercourse and Parental Incarceration among African American Youth Living in Urban Public Housing

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Abstract Mass incarceration, substance use, and adolescent early onset of sex (e.g., initiate sexual intercourse at 13 years of age or younger) are social problems with disparate impacts on low-income African American communities. Two out of every five inmates in state and federal prisons are African American and the vast majority of these inmates are from low-income communities. Furthermore, this population experiences more severe consequences of substance use and abuse compared to other populations. In sum, African American youth endure the lion share of problems that mass incarceration and substance use leave in their wake. It is likely that the early onset of sex reported by African American youth in national data is related to mass incarceration and substance use in their communities. Using a sample of 142 African American youth, this paper assesses whether parental incarceration or substance, or both, are related to the likelihood of early onset of sex. Analytic procedures included chi-square and sequential logistic regression. The sample reported a mean age of 19 and 36% reported early onset of sex.

Being male, paternal incarcerated, and maternal alcohol problems were associated with an increased likelihood of early onset of sex. Results point to a need for supportive services for the children of incarcerated parents, particularly those living in urban public housing developments.

Keywords STI/HIV risk · Mass incarceration · Onset of sex · African American youth · Public housing · Substance use

Introduction

The US incarcerates more individuals than any other industrialized country in the world [1]. At the end of 2013, an estimated 2.3 million people were incarcerated in the USA [2]. African Americans are disproportionately over-represented across all forms of confinement. They represent 13% of the US population but account for approximately 40% of all inmates in state and federal prisons [3, 4]. Accordingly, African American youth bear the heaviest burden of mass incarceration and its sequelae [5]. Although African American adults do not report the highest rate of alcohol and other drug use, evidence suggests that the consequences of substance use are severe in this population [6]. Accordingly, the children of substance-abusing African American parents are more likely to engage in a range of health-risk behaviors [7, 8], including sex-risk behaviors [9]. In fact, African American youth ages 13 to 24 years of age account for more than 60% of all new human

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immunodeficiency virus (HIV) infections while Hispanics/Latinos and Whites account for 20% each [10].

Despite the disparate impact of mass incarceration and more severe consequences of substance use in the African American community, possible relationships between parental incarceration and substance use, and early sexual onset (i.e., sexual debut at age 13 or younger) have not been explored. This paper contributes to this gap in knowledge. Using a sample of 124 African American youth living in public housing, this paper assesses how, or whether, parental incarceration and problems related to alcohol and drug use are associated with early sexual onset.

Review of the Literature

Mass Incarceration and Substance Use National data indicate that incarceration and substance use co-occur at a relatively high rate. Nearly, 65% (i.e., 1.5 million) of the 2.3 million incarcerated adults meet the Diagnostic and Statistical Manual IV (DSM-IV) criteria for alcohol or other drug abuse and addiction [10]. Another 20% who did not meet the formal DSM-IV criteria for drug abuse and addiction committed substance-involved crimes (e.g., high while committing a crime, stole money to buy drugs, were substance abusers, violated the drug laws, or share some combination of these characteristics) [10].

Incarceration and substance use have negative consequences not only for adults directly impacted but also for their children. Fifty-two percent of state inmates and 63% of federal inmates were parents of minor children [11]. More than 50% of the mothers and over 33% fathers held in state prison reported living with at least one of their children prior to being incarcerated [11] and approximately 75% of these mothers reported being the primary caregiver of their children [11]. There is an estimated 1.7 million children with a parent in state or federal prisons [11].

Disparate Impacts Mass incarceration and co-occurring substance use-related problems have had a disparate impact on low SES urban minority communities [12]. For example, nearly 40% of all inmates in state and federal prisons are African American [4]. Consequently, one in nine African American children has an incarcerated parent compared 1 in 57 White children [13]. Furthermore, the

vast majority of people currently incarcerated is poor, illiterate or partially literate, and reside in low SES communities [11]. Maruschak and colleagues found that among incarcerated parents in state prisons, only 10% had an 8th grade education and only one third had graduated from high school [11]. Others [14] reported that 40% of state prisoners grew up in a household that received public assistance and that 14% reported living in a foster home, agency, or institution at some point during their childhood. This evidence suggested that parental incarceration may lead to a cycle of substance abuse and incarceration in their offspring [14–17]. Lee, Fang, and Lou [18] found a high risk of HIV/AIDs in an adult sample who had incarcerated parents.

Sexual Behaviors Sex-risk behaviors, particularly early sexual onset (i.e., initiating sexual intercourse at age 13 or younger), differ significantly by race and gender in adolescents [19]. Males tend to report first sexual activity at an earlier age relative to their female peers. In addition, African American youth report an earlier age of onset of sex than their White and Latino counterparts [19]. Youth engaging in early sexual onset are at risk of several negative consequences. Early sexual onset can result in unplanned pregnancies and an increased risk for contracting sexually transmitted infections (STIs) including HIV [20]. Youth who engage in early sexual onset may lack sufficient knowledge on how to prevent STIs and avoid unplanned pregnancies [21]. Existing evidence suggest that STIs and unplanned pregnancies are related to psychological distress [22] and social disadvantaged in young parents [23]. Indeed, the loss of a parent to prison or drug use can be disruptive to young people. These adverse life events result in billions of dollars in direct and indirect cost to these youth, their young children, and society [24–26].

African American Youth Living in Urban Public Housing

Although African Americans compose 13% of the US population, they represent approximately 49% of the families in public housing [27]. US public housing developments are often marked by residential segregation, concentrated poverty, crime, violence and are epicenters of drug activities [27, 28]. In most large cities, they are ground zero for the war on drugs, and the mass incarceration that it leaves in its wake [28].

Due to the constellation of social problems that often coalesce in large urban public housing developments, youth in these environments report worse health outcomes than other youth [27–29]. For example, African American youth living in public housing report an earlier age of onset of sex compared to their non-public housing African American counterparts [9]. Existing evidence point to a strong and enduring relationship among early sexual onset, number of sex partners, teen pregnancies, and STIs [30]. It is likely that youth living in public housing are at heightened risk. Despite disparate impacts of parental incarceration and substance use and higher sex-risk behaviors in low SES African American youth, relationships, if any, among these factors have not been fully explored within this youth population. It is important to note that existing evidence on African American youth points to a higher likelihood of youth sex-risk behavior when a mother is incarcerated and when a father has an alcohol problem [9]. This paper contributes to a gap in the literature by focusing on the relationships among parental substance use and incarceration, and youth early sexual onset in youth living in public housing.

Theoretical Orientation

The conceptual underpinnings linking parental incarceration and substance use to youth early sexual onset is supported by family stress theory [31]. This theory posits that family stress (e.g., the loss of a parent to either substance use or incarceration) results in diminished capacities of the family to respond to the needs of their members, particularly the young. As it pertains to youth early sexual onset, the family stress theory would postulate that parental incarceration or substance use would diminish the supports parents can provide to each other and to their offspring resulting in inter-parental and family stress. Consequently, the disruptions resulting from substance use or incarceration or both either on one parent's part or their partner's part leave them unable to adequately respond to the emotional and developmental needs of their youth. Diminished parental support and supervision, or a combination of them both, may result in youth being drawn to others for emotional support, which may result in early sexual onset. Youth may also initiate sex early as a means of coping with the loss of a parent to substance use, alcoholism, or incarceration. Parental substance use or

incarceration may also curtail scarce monetary resources, resulting in youth engaging in survival sex to meet their basic needs.⁹ Indeed, research has documented robust relationships between diminished parental support and monitoring, and youth sexual risk behaviors [9, 30, 32]. The literature reviewed above and the family stress theory provide a sound empirical and theoretical foundation to explore possible linkages among early sexual onset and parental incarceration and substance use.

Research Questions

The study advances two research questions. The first question is descriptive and seeks to assess how, or whether, age of onset of sex differ by the study variables. The second question is explanatory and seeks to assess how, or whether, the likelihood of initiating sex at age 13 or younger are related to the study variables.

1. How does a youth's age of onset of sex differ: (1) by gender; (2) across age groups; (3) by whether their parents are currently incarcerated; and (4) by whether their parents' ever had problems with alcohol and illegal drug use?
2. To what extent are parental hardships (i.e., currently incarcerated and ever had problems with alcohol and illegal drug use) related to the likelihood of early onset of sex in youth?

Methods

Design

This study used a cross-sectional design and quantitative methods to explore factors impacting food insecurity in African American adolescents living in a public housing located in West Baltimore. The research team utilized a quasi-community-based participatory research (CBPR) approach. In attempting to incorporate the core principles of the CBPR, the academic members of research team worked collaboratively with community stakeholders. For example, three adolescent residents, two employees at the local recreation center, and two employees from a local social service agency acted as the community advisory board (CAB). The research team,

composed of CAB members and university-affiliated researchers, negotiated all aspects of conducting this study. These negotiations included but were not limited to the following: (1) identifying prevalent social issues facing the community; (2) articulating salient social issues into research questions; (3) level of measurement and appropriate language to use in the survey; (4) various methods to recruit youth; and (5) the appropriate settings and techniques for collect data. CAB members played a central role in constructing survey questions. The research team met on a bi-weekly basis. These meeting occurred over a period of 6 months prior to the start of data collection.

Community stakeholders were heavily involved in identifying salient social issues facing their community. Emerging issues included parental substance use, parental incarceration, youth substance use, youth without basic needs (i.e., food and safe housing), and youth sex-risk behaviors (i.e., early onset of sex and exchanging sex for money). Salient issues emerged through a reiterative process that resembled the Delphi Method. It is important to note that since the goal of the study was to identify challenges facing the youth, primacy was given to issues identified by youth members of the CAB.

Sampling

The research team determined that chain-referral sampling would be the best recruitment strategy given the social isolation of the population. The research team discussed several chain-referral sampling option and decided upon respondent driven sampling (RDS) [33]. RDS is an excellent method for conducting research in communities that are highly stigmatized, where distrust is prevalent and that have strong privacy concerns, which can lead to low research participation or inaccurate answers to study questions.

RDS involves recruiting an initial group of participants, referred to as index cases, then systematically identifying participants that emanated from those index cases. RDS is a form of chain-referral sampling that corrects sampling biases typically associated with chain-referral procedures. This is achieved by controlling the number of referrals each participant can make. This procedure produces a sample that is independent of the initial index cases. Twenty-five youth were recruited, which composed the index cases; thereafter, each participant was limited to three referrals. Youth

members of the research team emphasized the need for privacy; therefore, the survey was implemented in small groups (i.e., 5–6 youth).

Recruitment

To recruit the initial index cases, members of the research team posted flyers in the community center and in agencies surrounding the public housing development. The flyers included a brief overview of the study, the date and location for data collection, contact information for key research personnel, and the IRB office at Morgan State University. Once the index cases were recruited, each participant was given three recruitment cards to distribute to their peers who lived in our housing development [33].

Procedures

Participants 17 years of age or younger were required to provide signed parental consent and signed youth assent. Participants 18 years of age or older were required to provide signed adult consent. All consent forms were obtained the day data were collected. The surveys were self-administered in groups of five participants. Two members of the research team provided assistance to participants when needed. The survey took between 30 and 45 min to complete. Participants received a \$15 Visa gift card and a snack after completing the survey. Morgan State University's Institutional Review Board approved the research protocol.

Research Setting

As mentioned above, the partnering community, or research site, was one public housing development located on the Westside of Baltimore, MD. At the time of data collection, the partnering community had a median family income of \$14,487, with most families (68.5%) reporting annual incomes of less than \$25,000. Most students (99.4%) who resided in the partnering community were enrolled in public schools that are predominantly African American [34].

Measures

Demographics Demographic variables included age “What is your age?” and gender “What is your sex?”

Parental Incarceration and Substance Use Parental incarceration was assessed by two items “Is your father presently in jail” and “Is your mother presently in jail.” Parental substance use was assessed by four items: “Has your father ever had problems with consuming too much alcohol,” “Has your mother ever had problems with consuming too much alcohol,” “Has your father ever had problems with using illegal drugs,” and “Has your mother ever had problems with using illegal drug.” Responses categories for the four items were “yes” and “no.”

Youth Sex-Risk Behaviors Two items from the Centers for Disease Control and Prevention’s (CDC) Youth Risk Behavior Survey (YRBS) were used to assess adolescents’ sexual behaviors. First, participants were asked “Have you ever had sexual intercourse?” Response category was “yes” or “no.” Second, participants were asked, “How old were you when you first had sexual intercourse (voluntarily)?” Responses included the following: A = I have never had sex, B = Less than 12 years old, C = 12 years old, D = 13 years old, E = 14 years old, F = 15 years old, G = 16 years old, and H = 17 years old or older. Responses were dichotomized into initiated sex at age 13 or young (=1) vs. initiated sex at age 14 or older (=0). Responses were dichotomized to ensure the results of this paper addressed one of CDC’s benchmarks for sex-risk behavior in youth (i.e., onset of sex at age 13 or young). Responses were also dichotomized to ensure the results of this study are comparable to national and state data, and community studies using the Center for Disease Control and Prevention’s Youth Risk Behaviors Survey [35].

It is important to note that the questions used in the survey to assess parental incarceration and parental alcohol and drug problems were developed by CAB members. Therefore, these questions lack the psychometric vigor commonly associated with social measures in quantitative methods; however, including questions as articulated by community partners is consistent with the core principles of Community-based Participatory Research.

Analytic Procedures

Data Preparation and Diagnostics

For the purpose of this paper, participants who had not voluntarily initiated sexual intercourse were removed

from the sample. We also limited the sample to youth ages 12 to 24 years of age. The purpose of creating this sub-sample is to assess how, or whether, the association between parental hardships (i.e., incarceration, alcohol and drug problems) and early sexual onset differ across adolescence (12–14 = early adolescence) (15–17 = middle adolescence) (18–24 = emerging adulthood).

Before conducting the analyses, data were evaluated to ensure multicollinearity does not exist among the predictor variables (i.e., parental incarceration and parental alcohol or drug problems). Prior to dichotomizing the age of onset of sex variable, an OLS regression was conducted. The regression diagnostics included tolerance values and variance inflation factors. Based on results from the diagnostic, multicollinearity was not detected (Tabachnick and Fidell, 2007). Diagnostics results indicate that tolerance values were lowest for illegal maternal drug use (.529) and illegal paternal drug use (.614), and highest for maternal incarceration (.711) and paternal incarceration (.871). While it is largely debated on target values, a tolerance value of .50 or higher is generally considered acceptable [36].

Data Analyses

The analytic strategy for this paper was developed in four steps. First, univariate statistics were calculated for all study variables. Second, chi-square tests were performed on all study variables between early on setters (i.e., onset at 13 or younger) vs. non-early on setters (i.e., onset at 14 or older) and across adolescence (12–14 years of age) (15–17 years of age) (18–24 years of age). Third, a Spearman non-parametric bivariate correlation analysis was conducted. Finally, a four-step sequential logistic regression was computed. The first step in the regression sought to control for demographic factors and included age and gender. The second step in the regression included parental incarceration (i.e., father currently in prison and mother currently in prison). Step 3 in the regression included parents (i.e., paternal and maternal) ever had problems using alcohol. The final step included parents (i.e., paternal and maternal) ever had problems using illegal drug. It is important to note that we initially included a fifth step in the model, which included six interaction terms (i.e., age by each independent variable). This step did not make a unique or significant contribution to the regression model; therefore, it was removed from the final analysis.

Results

Univariate Analyses

Participants in early adolescence represented 9.4% of the sample; 19.7% of the sample were in middle adolescence, and 70.9% of the sample were in emerging adulthood. Females represented 50% of the sample. Slightly over one third (35.5%) of the respondents reported early sexual onset.

Thirty-seven percent (36.9%) of the respondents had not experienced any parental hardships (i.e., parental incarceration, parental alcohol problems, and parental drug problems). Of the respondents who had experienced parental hardships, 25.4% reported one hardship, 16.9% reported two hardships, 7.7% reported three hardships, 6.9% reported four hardships, and 6.2% reported five hardships.

More specifically, 25.2% of the respondents reported having a father currently incarcerated, while only 7.1% reported currently having a mother incarcerated. Additionally, 26.8% reported having a father who has ever had an alcohol problem and 22.8% reported a mother who has ever had an alcohol problem. Twenty-nine percent of the respondents reported a father who has ever had a drug problem and 23.6% reported a mother who has ever had a drug problem. See Table 1 for univariate results.

Chi-Square Analyses

Results from the chi-square test indicated that females were significantly less likely to report early sexual onset ($\chi^2 = 66.27$). Results documented that parental hardships and early sexual onset were correlated. More specifically, father ($\chi^2 = 5.87^{**}$) and mother ($\chi^2 = 17.63^{***}$) current incarceration, fathers ($\chi^2 = 8.54^{**}$) and mothers ($\chi^2 = 18.40^{***}$) who have ever had an alcohol problem, and fathers who have ever had drug problems ($\chi^2 = 3.65^*$) were all significant correlates of early sexual onset at the bivariate level. Mother's drug problems were unrelated to early sexual onset. Results from the chi-square test also found difference across age groups. Participants in middle adolescence reported significantly more mothers in prison ($\chi^2 = 13.7^{**}$), more mothers who have ever had alcohol problems ($\chi^2 = 13.3^{**}$), and also more fathers who have ever had alcohol problems ($\chi^2 = 7.32^*$). See Table 1 for chi-square test results.

Spearman Non-parametric Correlation

Results from the Spearman non-parametric bivariate correlation indicate that early sexual onset was significantly and positively correlated with being male ($r = .668^{**}$); significantly and inversely correlated to age ($r = -.325^{**}$); and significantly and positively

Table 1 Percent by age groups and age of sexual onset and χ^2 test results ($n = 124$)

Study variables	Percent full sample	Percent by age group				Percent by age of onset		
		12–14	15–17	18–24	χ^2	13 and younger 35.5%	14 and older 64.5%	χ^2
• Female ^a	50	0	16.9	83.1	15.9 ^{***}	22.6	77.4	14.0 ^{***}
• Males ^a	50	19.4	22.6	58.1		85.5	14.5	53.0 ^{***}
• Mother currently in prison ^b	7.1	0	24	3.3	13.7 ^{**}	20.9	0	17.63 ^{***}
• Mother ever had alcohol problem ^b	22.8	33.3	48	14.4	13.3 ^{**}	44.2	10.3	18.40 ^{***}
• Mother ever had drug problem ^b	23.6	0	28	25.2	ns	30.2	19.2	ns
• Father currently in prison ^b	25.2	16.7	40	22.2	ns	39.5	19.2	5.87 ^{**}
• Father ever had alcohol problem ^b	26.8	5.9	48	22.2	7.32 [*]	44.2	19.2	8.54 ^{**}
• Father ever had drug problem ^b	29.1	16.7	28	31	ns	39.5	23.1	3.65 [*]

* $p < .05$; ** $p < .01$; *** $p < .000$

^a Percent answered yes within gender

^b Percent answered yes within age group

correlated paternal incarceration ($r = .196^*$), maternal incarceration ($r = .364^{**}$), fathers who have ever had alcohol problems ($r = .302^{**}$), mothers who have ever had alcohol problems ($r = .424^{**}$), and fathers who have ever had drug problem ($r = .214^*$). Early onset was unrelated to mothers who have ever had drug problems. See Table 2 for results from the Spearman non-parametric correlation.

Multivariate Analyses

Results from the full sequential logistic regression model were significant [$\chi^2 = 93.22(8)$; $p < .0000$] and correctly classified 90.3% of the cases. Furthermore, the non-significant Hosmer and Lemeshow test result suggests a good model fit ($p = .314$). Results from model 1 (i.e., age, gender) were significant [$\chi^2 = 60.70(2)$; $p < .0000$]. Parameter estimates indicate that males had a 44 times higher likelihood of reporting early sexual onset ($OR = 44.6$, $p < .000$) and participants in emerging adulthood (ages 18 to 24 years) were 5.39 times more likely than youth in early adolescence (ages 12 to 14 years) to have initiated sex at age 13 or younger. Results from model 2 (i.e., mother or father currently incarcerated) were significant [$\chi^2 = 10.48(2)$; $p < .000$]. Parameter estimates indicate that father's incarceration was significantly associated with an eight times higher likelihood of early sexual onset ($OR = 7.97$, $p < .01$). Results from model 3 (i.e., mother or father who has ever had alcohol problems) were significant [$\chi^2 = 12.69(2)$; $p < .000$]. Parameter estimates indicate that mothers who have ever had alcohol problems were significantly associated with a 15 times higher

likelihood of early sexual onset ($OR = 15.4$, $p < .01$). Results from model 4 (i.e., mother or father who has ever had drug problems) indicate that mothers or fathers who have ever had drug problems were unrelated to early sexual onset. See Table 3 for results and related model statistics.

Discussion

Parental incarceration and substance use, and early sexual onset are social issues that have disparate impacts within the African American community. A major finding in this paper indicates that they are also intricately linked. Although it is well documented that the loss of a parent to prison and alcohol problems are linked to behaviors in their offspring [37, 38], including sexual behavior [17], this paper represents a first to empirically assess how these two specific parental hardships are related to age of sexual onset. Furthermore, no studies have explored these relationships within communities with a heavy presence of drug activities, that are targets of the war on drugs, that are hardest hit by mass incarceration, and that are home to our nation's most vulnerable population of youth (i.e., urban public housing developments). Indeed, this paper makes a unique contribution to the discussion on how parental incarceration and alcohol problems are related to sex-risk behavior in this understudied and marginalized population of urban youth.

Key findings indicate that incarcerated fathers and mothers who have ever had alcohol problems have children who initiated sex at age 13 or younger at a rate higher than free fathers and mothers who have never had

Table 2 Spearman's rho correlations: age of onset of sex and parental incarceration in African American youth ($n = 124$)

	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Age of onset sex	1.000	.668**	-.325**	.196*	.364**	.302**	.424**	.214*	.173
2. Your gender		1.000	-.287**	.000	.273**	.188*	.179*	.067	.018
3. Age			1.000	-.092	-.191*	-.102	-.256**	.097	.118
4. Paternal incarceration				1.000	.266**	.035	.088	.083	-.046
5. Maternal incarceration					1.000	.029	.266**	.015	.050
6. Paternal alcohol Problems						1.000	.431**	.540**	.220*
7. Maternal alcohol problems							1.000	.432**	.487**
8. Paternal drug problems								1.000	.530**
9. Maternal drug problems									1.000

** $< .01$; * $< .05$

Table 3 Hierarchical regression model: criterion—age of onset of sex ($n = 124$)

Variables	Model 1			Model 2			Model 3			Model 4		
	B	Wald	OR	B	Wald	OR	B	Wald	OR	B	Wald	OR
Constant	−.852	.217	ns	−2.93	2.18	ns	−2.37	1.22	ns	−2.17	.945	ns
Age groups												
• 15–17 years old	.834	.934	ns	.960	1.17	ns	1.08	1.19	ns	1.15	1.33	Ns
• 18–24 years old	1.68	5.30	5.39*	1.19	2.32	ns	1.06	1.09	ns	1.17	1.26	ns
Gender	3.79	28.8	44.6***	4.32	22.9	75.6***	4.68	19.4	108***	4.69	18.9	108***
Father in prison				2.07	5.99	7.97*	2.35	5.41	10.4*	2.35	5.37	10.5*
Mother in prison				.114	.014	ns	18.0	.000	ns	18.0	.000	ns
Father alcohol problem							.784	1.06	ns	.752	.634	ns
Mother alcohol problem							2.73	5.88	15.4*	2.63	5.07	13.9*
Father drug problem										−.086	.004	ns
Mother drug problem										.422	.111	ns
χ^2 (df) ^a	60.77(3)***			10.48(2)**			12.69(2)**			ns		
χ^2 (df) ^b				80.24(5)***			92.94(7)***			93.22***		
−2 Log likelihood	98.78			84.30			70.60			70.34		
Cox and Snell R^2	.430			.476			.527			.533		
Overall Classification	82.3			82.3			90.1			90.3		

* $p < .05$; ** $p < .01$; *** $p < .000$

^aResults for step

^bResult for cumulative model

alcohol problems. These findings corroborate other research [17] and expand the extant literature in a number of ways. Studies document that males engage in sexual onset at an earlier age relative to their female counterparts [30, 39]. In addition, paternal incarceration was associated with an increased likelihood to report early sexual onset. Lee and colleagues [17] also found paternal incarceration associated with HIV/AIDS status. Given the exponential growth of the prison population in the last two decades and the disproportionate overrepresentation of African American males in all forms of incarceration [2], these findings highlight an important significant association between parental incarceration and their offspring sex-risk behaviors. Results indicated that paternal incarceration and youth early sexual onset covary and that this relationship is especially significant for boys.

Scholars have long argued that mass incarceration has multiple negative sequelae for youth [12] and such posits have been well established in a range of outcome with the children of incarcerated parents [15, 16]. However, too few studies have empirically documented this relationship and none with African American youth

residing in public housing. This particular finding may suggest that important paternal monitoring functions may be disrupted in homes where parental incarceration has occurred. Although parental monitoring was not assessed in this study, it is plausible that the relationship between paternal incarceration and early sexual onset is mediated by supervision. This is a plausible assumption that future research may explore.

Major findings also indicated that maternal but not paternal alcohol use was related to early sexual onset. Given that mothers more so than fathers are directly involved in parenting and supervision of youth, this finding makes sense. Overall parental drug use was relatively low among the overall sample and limited use and statistical power may have resulted in the ability to calculate more precise estimates of the significance of this construct to early sexual onset.

Limitations Study findings should be interpreted within the context of its limitations. First, non-probabilistic sampling was employed to recruit participants. It is important to note, however, that one of the most rigorous non-probabilistic methods (i.e., respondent driven

sampling) was employed. Second, the cross-sectional approach precludes our ability to establish temporal or causal inferences. Third, all self-reported data are subject to inaccurate recall or false reporting by participants. Fourth, we were not able to assess parental monitoring and supervision or communication which may be important moderators or mediators of the relationships textured in this study. Fifth, we dichotomized early sexual debut into sex at age of 13 years of age or younger vs. 14 years of age or older. It is important to note that we dichotomized this variable to make our results comparable to other national data sets [39–41]. However, boys often initiate sex earlier than girls [41] and future studies may need to account for such gender-normative dynamics. Finally, the parental incarceration question (i.e., currently incarcerated) and the parental substance use questions (i.e., ever had substance problems) are unsophisticated and not equal in temporal order. It is important to note, however, that the wording of these questions were developed by our Community Advisory Board. Despite these limitations, our findings represent a first step to document important associations in a vulnerable population of understudied youth that heretofore have not been documented in the empirical literature.

Implications

A number of implications can be suggested based on this study. Results partially support the Family Stress Theory [31], by documenting that parental stressors (substance use and incarceration) are related to youth early sexual onset. These findings suggest that youth in households impacted by fathers currently being incarcerated and mothers who have ever had alcohol problems should be targeted for early sexual education classes.

Although all youth should be provided with sexual education and sexual onset is a normal phase of youth development, having sex at too early an age may result in negative consequences (e.g., emotional trauma or STI acquisition). Consequently, there is a need for youth fitting the above profiles to receive age-appropriate comprehensive sex education in middle school or earlier. Specific interventions may include efforts directed at helping youth in impoverished environments learn about broad sexual health options. Another useful avenue may be provision of information about risks associated with early sexual onset and how to reduce such risks when possible.

At an even more fundamental level, the familial stressor identified in this paper (paternal incarceration and alcohol use) may need to be addressed directly. Community-based interventions focusing on family support, especially in households with dependent children, may prove useful. More specifically, such interventions may incorporate counseling, prevention, and treatment of drug problems, especially for mothers. On a macro level, these findings also highlight the critical need to reform the US criminal justice system, to curb the mass incarceration of African American men. This population experiences higher rates of arrest, sentencing, and prison terms relative to their White counterparts for non-violent offenses [29]. Supporting age-appropriate developmental needs of African American youth requires focused attention on the family unit. More African American youth relative to their other ethnic peers are growing up in single-female households and subsequently poverty [40]. This growing trend may be partly due to the mass incarceration of African American men [39, 41]. Without addressing these structural injustices, the overall growing cost to youth and the overall society would persist.

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