

Socioecological Factors in Sexual Decision Making among Urban Girls and Young Women

Robin Stevens, Stacia Gilliard-Matthews, Madison Nilsen, Ellen Malven, and Jamie Dunaev

Correspondence

Robin Stevens, PhD, MPH,
Rutgers University,
405-407 Cooper Street,
Room 302, Camden, New
Jersey 08102.
robin.stevens@rutgers.edu

Keywords

sexual health
adolescents
African American
neighborhood disadvantage
HIV
emerging adults

ABSTRACT

Objectives: To examine how girls and young women living in disadvantaged urban neighborhoods make decisions relating to sexual debut and HIV prevention.

Design: Thirty semistructured in-depth interviews. We used a socioecological approach to investigate the role of neighborhood and social context on sexual decision making.

Setting: Community-based organizations and on-campus interview sites.

Participants: African American and Latina girls and young women age 13 to 24 living in disadvantaged neighborhoods.

Methods: We examine their attitudes and beliefs about sex, first opportunities for sexual intercourse, prevention behaviors, and neighborhood environments.

Results: Lack of neighborhood safety and safe socialization places led youth to spend significant amounts of time indoors, often without adult supervision.

Conclusion: The findings provide insight into the socioecological context in which girls are situated as they navigate sexual decision making. Unsupervised, cloistered time coupled with peer norms to engage in sexual behavior may contribute to increased risky sexual behavior among some youth. Prevention efforts should consider neighborhood context and incorporate structural and community-level interventions to create social environments that support healthy sexual decision making.

JOGNN, 00, 1-11; 2014. DOI: 10.1111/1552-6909.12493

Accepted May 2014

Robin Stevens, PhD, MPH is an assistant professor in the Department of Childhood Studies, Rutgers University-Camden, Camden, NJ.

Stacia Gilliard Matthews, PhD, is an assistant professor in the Department of Sociology, Anthropology & Criminal Justice, Rutgers University-Camden, Camden, NJ.

Madison Nilsen is a master's student in the Department of Sociology, Anthropology & Criminal Justice, Rutgers University-Camden, Camden, NJ.

(Continued)

The authors report no conflict of interest or relevant financial relationships.



Despite continued intervention efforts, minority adolescent girls remain at high risk of contracting HIV and other sexually transmitted infections (STIs) and unintended pregnancy. According to the Centers for Disease Control and Prevention (CDC) (2013), African American adolescents and young adults accounted for 60% of new cases of HIV in 2011. Adolescent women generally made up 54% of new or current STI cases, with minority adolescents facing a disproportionately higher risk of infection (CDC, 2013). These health disparity statistics can be misread as evidence of disparate levels of risk behavior by African American youth (Stevens & Hornik, 2014). However, evidence shows that African American youth, male and female, are at greater risk of HIV and STI infection while practicing fewer risky sexual behaviors than their White counterparts (Hallfors, Iritani, Miller, & Bauer, 2007). The identification of the driving forces behind these disparities, even when identifying upstream root causes, does not

lead to easy solutions (Williams & Collins, 2001). We examined sexual decision making vis-à-vis the social world embedded within disadvantaged neighborhoods.

Background

Environment is a key predictor of adolescent health and a variety of adolescent risk behaviors, including sexual risk (Elliott et al., 1996; Leventhal & Brooks-Gunn, 2000). The characteristics of disadvantaged neighborhoods include high levels of concentrated poverty and single-parent homes, high crime rates, minimal resources, and social disorder (Latkin, Curry, Hua, & Davey, 2007). Many of these environmental factors are also associated with increased sexual risk behaviors (Aral, Adimora, & Fenton, 2008; Biello, Niccolai, Kershaw, Lin, & Ickovics, 2013; Leichliter, Chesson, Sternberg, & Aral, 2010). Although social factors affect influence sexual risk behavior, evidence

Sexually transmitted infections, HIV, and unintended pregnancy are intertwined with the fight for quality neighborhoods, safety, and employment.

indicates that neighborhood quality remains influential (Dupere, Lacourse, Willms, Leventhal, & Tremblay, 2008; Kerrigan, Witt, Glass, Chung, & Ellen, 2006). In addition, HIV infection rates are often associated with poverty, lack of quality health care, stigma, and discrimination, all of which are commonly associated with neighborhood disadvantage (Denning, DiNenno, & Wiegand, 2011). Adolescent pregnancy is associated with poverty, racial inequality, lack of resources, and low expectations for future success (Kearney & Levine, 2012).

Researchers have investigated structural context experienced through social interactions (Dilorio, Dudley, Soet, & McCarty, 2004). One group of researchers examined sources of sexual information among urban adolescent girls, focusing on the roles of the media environment, social norms, and adults in authority (Teitelman, Bohinski, & Boente, 2009). Another group found that neighborhood cohesion was related to increased condom use, an association that remained even after controlling for family and individual-level factors (Kerrigan et al., 2006). Penman-Aguilar et al. (2013) suggested that effective prevention efforts should address socioeconomic influences at the individual, family, and community levels. Additional authors using evidence-based approaches recommended targeting peer and community norms within their social contexts (Garwick, Nerdahl, Banken, Muenzenberger-Bretl, & Sieving, 2004). Although we know that poverty matters, it is not clear how youth experience these macrostructures. Adimora, Schoenbach, and Floris-Moore (2009) provided insight into a variety of socioecological mechanisms that influence HIV transmission among African Americans, though this research was not specific to adolescents. In this article, we describe sexual decision making in the context of social and neighborhood environment guided by three research questions: "How do girls and young women experience neighborhood disadvantage? How do girls and young women make decisions about initiating sexual activity? How does the social and neighborhood context interact with sexual decision making?"

Ellen Malven is a doctoral student in the Childhood Studies Department, Rutgers University-Camden, Camden, NJ.

Jamie Dunaev is a doctoral candidate in the Childhood Studies Department, Rutgers University-Camden, Camden, NJ.

Theoretical Framework

The integrative model of behavior change served as the theoretical foundation to systematically explore predictors of risky sexual behavior (Fishbein & Yzer, 2003). According to this model, engagement in risky sexual behavior is a function of intentions, attitudes toward the behavior, normative perceptions about the behavior, and perceived self-efficacy. To understand the nature of environmental constraints and contextual factors beyond individual cognitions, we used an ecological systems theory (Bronfenbrenner, 1992). Ecological systems theory, or the socioecological approach, provides a framework with which to examine various levels of an individual's social and physical contexts, including family, peers, and culture. With this approach, researchers consider individual behavior within levels of context as well as the interplay between multiple systems and behavior (DiClemente, Salazar, Crosby, & Rosenthal, 2005; Sameroff, 1995). By combining an individual behavior change framework with the socioecological framework, we approached sexual risk behavior as a multilevel challenge requiring individual, social, and structural interventions.

Methods

Procedures

This study took place in a small, predominantly African American (48%) and Latin (47%) northeastern city. The city is typified by concentrated poverty, with a median household income of approximately \$27,000, and 36.1% of the population lives below the poverty line (U.S. Census Bureau, 2010). This city is also characterized by a high childhood poverty rate (19%), high unemployment rate (11%), high rate of single-parent headed households (37%), and low graduation rate (66%) (U.S. Census Bureau, 2010). Additionally, this city ranked second to last in the nation for safety with 2,448 violent crimes for every 100,000 residents in 2010 (U.S. Census Bureau, 2010).

We followed human subject protection procedures approved by the University Institutional Review Board. Young women ($N = 30$) were recruited from various locations in the city including local schools, hangouts, parks, community agencies, and afterschool programs. The inclusion criteria included 13- to 24-year-old females, English speaking, living in the study city, and self-identified as African American and/or Latina. We obtained parental consent and youth assent from participants younger than age 18 years.

Youth were compensated with \$25 for study participation.

Trained interviewers conducted semistructured interviews at locations that were private and convenient throughout the city. Due to the travel limitations of the participants, the research team was flexible and interviewed participants in places they found convenient. To control for potential biases and to create a sense of comfort, every effort was made to match interviewers and interviewees' along lines of race and sex. Steps were taken to ensure confidentiality, data trustworthiness, and establish rapport such as the use of pseudonyms. Interviews were secure and confidential, and participants could withdraw at any time. Participants completed a brief demographic questionnaire prior to the interview to guide the course of the interview. The interview guide was developed using constructs from the socioecological model and the integrative model of behavior change. The interview questions were sufficiently broad to allow for deviation and participant discussion of related concepts. We asked semistructured questions related to neighborhood characteristics, family relationships, and technology usage. We also asked participants to describe their attitudes and behaviors related to sexual activity, alcohol, marijuana, and other drug use. Table 1 includes a sample of the interview questions and the theoretical framework and constructs underlying each question.

Data Analyses

Data analysis of the interview transcripts was guided by procedures described by Corbin and Strauss (1990) and LaRossa (2005). The principal investigator and two trained graduate students conducted the coding and used the coding software Atlas.ti version 7 to elucidate connections between themes across interviews. The coding procedure consisted of identifying the concepts (words, phrases, or statements) that conveyed a specific meaning. Similar concepts were extrapolated from the interviews, analyzed, and categorized. Once the overarching categories were established, we created subcategories to extract, analyze, and reconnect the data. Thus emerged a core theme around which all of the categories were connected. To establish intercoder reliability, the coders worked independently, coded a subsample of the same transcripts, and discussed their findings with the entire coding team. During this iterative process, the lead researcher re-

solved coding discrepancies. Once 90% simple agreement was achieved across coders utilizing 10% of the interview sample, coders independently coded the remaining interviews. When this process was complete, coders and lead researchers worked together to digest the identified patterns and identify meanings for dissemination, being careful to avoid excluding minority accounts that challenged our conclusions or overemphasizing particularly dramatic accounts (Sandelowski, 2001). Pseudonyms are used to report the findings. The quantitative data from the brief pre-interview questionnaire was analyzed using Stata v.12. Chi-squared and *F* tests were conducted to identify demographic differences between sexually active and nonactive participants.

Participants included 30 females who identified as African American (43%), Latina (40% of Dominican or Puerto Rican descent), and both (17%). Their ages ranged from 13 to 20, with a mean age of 17 (see Table 2). All participants were in high school or community college at the time of the interview. One half reported having engaged in sexual intercourse in the past. The sexually active participants were significantly older and more likely to report alcohol and marijuana use than nonactive girls. There were no other significant differences in living situation or sexual attraction. Although their sexual experience levels varied, common themes emerged from their stories, particularly their rationales related to sexual decision making.

Findings

Neighborhood Constraints

Viewed through a socioecological lens, the neighborhood exists in an individual's microsystem as a key contextual factor directly experienced by youth. Most respondents experienced their neighborhoods as unsafe or dangerous. The girls described a lack of outdoor or public spaces in which to socialize without fear of harm: "It's gettin' bad now, there be drug dealers out and everybody killing each other lately, so it be bad." When asked about hanging out in the neighborhood, she responded, "No, if we do, we just be inside the houses. We don't be outside." Neighborhood violence was commonly linked to the pervasive drug culture in the city:

It's not safe. It used to be safe before but for the past couple of years drug dealers have been moving into the neighborhood and now it's pretty much, you can't sit

Table 1: Sample Interview Questions & Theoretical Constructs

Topic	Interview Question Samples	Theoretical Construct
Neighborhood	Can you tell me about your neighborhood? What is it like to live there? Where do you go for fun? Is there a place for teens to go for help around here if they get pregnant or get a sexually transmitted disease?	Microsystem – Neighborhood Context (Socio-ecological theory)
Sexual Intercourse	What would be good about you having sex? What would be bad about you having sex?	Behavior Beliefs – Attitudes (integrative model [IM])
Sexual Intercourse	What would make it easy to have sex? What would make it hard to have sex?	Self-Efficacy beliefs (IM)
Sexual Initiation	Sexually Active Youth: I would like for you to think back to the first time when you had sex. Can you tell me the story of what happened from the beginning? What you were thinking and feeling before and after? Additional Prompts: Who was involved? Where did it occur? Did you talk to anyone about it, before or after? What did your friends think? What did your family think?	Past Behavior (IM) Microsystem Context (Socio-ecological theory)
Sexual Debut Delay	Non-Active Youth: Have you ever been close to having sex? Can you tell me the story of what happened from the beginning? What you were thinking and feeling before and after? Additional Prompts: Who was involved? Where did it occur? Did you talk to anyone about it, before or after? What did your friends think? What did your family think? What made you decide to wait?	Past Behavior (IM); Microsystem Context (Socioecological theory)

outside. You can't do anything. You have to move from your car to inside the house real quick because there's been shootings for the last couple of years.

This statement conveys the participant's perception of worsening conditions in her neighborhood and how the increased violence influences her behavior. Her assessment was not unique. Many participants expressed feelings of insecurity in their neighborhoods as a result of the city's open-air drug culture: "It's like, certain points, like, certain corners, they're drug points, I don't like it. Like the corner store that I used to go to, they started selling drugs one summer. I haven't went to there."

Several youth offered more nuanced views of their neighborhoods and highlighted the positive familial environment in spite of the negative aspects:

Well, everybody in my neighborhood gets along with each other. And we, especially in the summertime when we all sit outside and we talk because our houses are so close together that we have to, you either like. If you don't like the people that you next to, you in trouble. So we talk and, you know, we kinda watch out for each other.

Participants also consistently described their environments as lacking social activities or programs.

Table 2: Sample Demographics by sexual activity

	Total Sample (<i>N</i> = 30)	Sexually Active (<i>n</i> = 15)	Non-Active (<i>n</i> = 15)	
Age Mean (<i>SD</i>)	17.3 (2.43)	15.5 (1.9)	19.4 (0.6)	$F_{test(1,29)} = 58.7^*$
Marijuana Use	33.3%	0	66.7%	$\chi^2 = 15.0^*$
Alcohol Use	60%	33.3%	86.7%	$\chi^2 = 8.9^*$
Live with Mother	83.3%	73.3	93.3	NSF
Live with Father	26.67%	13.3%	40%	NSF
Sexually Attracted to Males	90%	86.7%	93.3%	NSF
Sexually Attracted to Females	6.7%	6.7%	6.7%	NSF
Sexually Attracted to Males and Females	3.3%	0	6.7%	NSF

Note. SD = standard deviation; NSF = non-significant finding.
*significant at $p < .05$.

As a result of neighborhood insecurity and lack of organized youth programs or social venues, most reported hanging out in their homes or in the houses of friends as their primary social activities: "It's not really anywhere for us to hang out at . . . And I feel like if we had other places like, if we had a club . . . like an actual club, instead of all these bars." She also mentioned that hanging out in a house was one of the few things to do. Several girls reported that the time spent indoors was regularly unsupervised or supervised by a slightly older relative or sibling.

Participants who opted to socialize outside employed a variety of protective strategies:

We go to the park sometimes but if we go to the park, we have to come back super early. We have to go there super early and come back super early because it gets dark and at our park a lot of drug dealers and homeless people hang out there so . . . our parents really don't want us there.

Seven of the girls described sexual cultures in their neighborhoods that included prostitution or sexual harassment:

I used to live out [Neighborhood A] but now I'm like more around [Big Street] where it's a lot of drug dealers, prostitutes, all that. They usually not around where I live but like if I wanna go to the corner store or walk to the park it's a lot of them around there.

She attributed the problems of her neighborhood to outsiders.

They also described the challenges of being a young female living in their neighborhoods. Several girls mentioned sexual harassment:

I live in East [city] and its pretty much rough around there, there's fiends [drug addicts] when you go to the corner store somebody always asking you for change and guys are always commentin' on your body or whistlin' at you when you walk by, stuff like that.

One participant described an incident of being solicited for sex work:

Well, I don't like this. There's certain people that live around me. They just, like, cause a lot of drama. And, like, there's certain drug points that . . . there's like one across the street from me. It's like, it was not a drug point but it's like, certain place where prostitutes like to get picked up, so like, whenever I come outside or, like, I'm wearing, like, pants that are tight on me, like, cars be honking trying to see if I'll get in the car. Because that happened to me this past summer. Like, a car went by me. My mom saw it, and like, they kept stop—slowing down in the middle of the street. I'm like, "Get away from me! You do not have to come near me. My mother is right here."

Another participant described strategies she used to cope with the risks in her neighborhood:

Practitioners should advocate for investments in evidence-based youth development programs, improved labor markets, and interventions that dismantle endemic drug markets.

At night you get robbed. So, basically, what we do is, me and my friends, we go together and we call each other or text each other so that, you know, to say, you know, meet me here, meet me there. We always go in a group. Never alone. So that way we don't be susceptible to people robbing us or grabbing us or something like this because we always try to stay together.

We explicitly inquired if there were assets in their neighborhoods that could provide help, support, or advice to young people related to sexual health. Most of the girls could not identify any local resources, and the few who did were not confident about the services provided. A small minority provided detailed information about places to receive help. The locations cited were a local health clinic, a local hospital, and the local Planned Parenthood. One participant described her experience with Planned Parenthood and explained in detail how she obtained birth control and condoms and the methods Planned Parenthood used to communicate with clients while maintaining their anonymity. Participants who were not sexually active were less likely to identify sexual health resources in their communities. Notably, none mentioned schools as a place to receive help.

Parental influences

Parental expectations and behaviors played an important role in decisions regarding their sexual behavior. For a majority of the participants, a primary reason for abstaining from sexual activity was to maintain a positive, trusting relationship with their parents. One girl identified her relationship with her mother as a primary motivation in abstaining from sex:

Just thinkin' about like, if I do start having sex this early, me not wantin' to not like break the trust with my mom and everything, I would like, it would eat me up inside if I didn't tell her, but I knew if I did she would be disappointed in me and she wouldn't have as much trust.

In addition to parental expectations, parental monitoring or strictness influenced several girls' decisions to abstain since they felt their parents' affect limited their opportunities to have sex. Conversely, several girls who reported lack of parental monitoring also reported early sexual activity and often a lack of instruction regarding safe sexual practices. In one participant's description of her first sexual experience, the lack of parental monitoring figures prominently, "It was just me and my boyfriend in high school, and he had walked me home after school one day and we had just went home 'cuz nobody was at my house and we just started having sex." She also reported that it was easier for her to have sex, "'cuz my sister don't care and my mom always at work so we can have sex whenever at my house." Sexually active girls frequently reported that their parents were working or away from home, which provided them the opportunity to engage without fear of interruption.

Peer and Partner norms

The participants described normative pressure as a significant influence in sexual decision making. Sexually active youth reported openly discussing their sexual experiences with friends, whereas those who were not active voiced the pressures they felt to be sexually active. One participant explained how peer norms around sex allowed her to minimize fears of negative outcomes when she became sexually active: "It was good but like you always nervous like to get pregnant and stuff so like you be scared but everybody having sex so it don't really, you don't really be thinking 'bout it like that." Another described her decision to have sex for the first time: "Because I, for real, for real, I thought, like, that would make me, like cool." Several participants who were not active also reported that losing their virginity would make them feel more popular and fit in with their peers.

Partner pressure influenced some girls' decisions to become sexually active: "Because I felt like a little pressure from him, I wanted him to like me and I thought everybody was doing it." One participant explained her sexual debut in relation to her partner: "I thought in my mind he was my boyfriend, but come to find out, I thought he was my boyfriend in my mind but in his mind I was just somebody to have sex with." They also described gender differences in their attitudes toward sex in general:

Boys, at a certain age is like, they gotta have sex because all, that's like, the things that boys do. But girls, they're more like timid.

Like, boys, they're, they're anxious to like, lose their virginity. But girls, they're a bit more scared to lose their virginity and have sex or whatever.

Normative beliefs related to perceived peer behavior or parental expectations played a pivotal role in sexual decision making for most of the adolescents interviewed.

Participants described "slut shaming" as an activity that takes a variety of forms in which girls are ridiculed for being sexually active. Slut shaming on social media takes a variety of forms and involves peers exploiting one another online by posting video and photos of sexual activity, revealing and nonrevealing photographs, and adding harsh comments and tags alleging promiscuity or virginity. Youth also post pictures of others on Facebook pages that are created with the sole purpose of shaming or exposing "sluts and whores" in the city. One participant spoke of how "girls just be in their bathroom taking pictures and posting it just for 'likes' . . . and then they be having all these different pages where, like, exposing . . . exposing sluts [and] exposing whores [and] everything." Two girls described online slut shaming as one reason they remained abstinent.

Sex Positives

In contrast to concerns of slut shaming, participants routinely focused on emotional closeness with the romantic partner when asked to discuss the positive outcomes that accompany sex. The emotional connection with their partners played prominently in the interviews, regardless of the sexual activity level of the youth. One participant who was not sexually active explained the good part about having sex: "You feel like someone is special to you and you feel special to someone . . . and feeling special can actually make you a happier person." Other youth who abstained from sex also reported similar feelings of positivity about their sexual futures: "You find the right person, the right time. You feel confident. That's when you should."

Some sexually active participants said that sex "felt right" with their partners and described it as a natural part of transition into young adulthood. One girl explained how her relationship with her boyfriend had reached a point where sex seemed inevitable, but also comfortable:

Because I've been in a relationship for going on two years so me and my boyfriend we been together so long it's like, it's, it's just become normal. But like, if I was just in a regular relationship, like I just met somebody I'm not gonna be like, Ok. We're gonna have sex today.

Notably, most youth did not report physical pleasure as a reason for initiating sex.

Sexually Transmitted Infections and Pregnancy

Negative aspects of sex largely revolved around STIs and unintended pregnancy. Although participants described STIs as the most severe negative outcome, they often discussed STIs as an afterthought, following an initial mention of pregnancy:

You can get pregnant . . . You can catch diseases and anything else. It's scary. So you gotta make sure you get tested all the damn time, if you're not with somebody, just that one person even so you gotta be careful with them 'cuz you never know who they screwing behind your back.

Alternatively, another participant explained her rationale of avoiding STIs by limiting sexual activity to one partner, "Because I was thinking, like, he clean, I'm clean. We ain't both having sex with nobody else, no. And we used a condom, so."

The majority of participants focused their discussion of STIs around fear particularly of HIV: "That's like the scariest STD of them all and even my, like my son's father, his dad died from, complications with that. It just scares me." Other girls expressed similar concerns and fears but made little differentiation between STIs. One described her experience with a STD, or in her words, "getting burnt," while another linked HIV primarily with drug related transmission: "I usually link HIV with drug addicts, so sometimes I forget that it's a sexually transmitted."

Girls described pregnancy as an "unwanted" occurrence and a "mistake." They regularly reported that they were too young to have children and that an unintended pregnancy would mean missing out on many of activities like spending time with friends, going to the prom, and getting into college. Most acknowledged responsibility

associated with child rearing and felt they were not yet ready to handle these responsibilities.

Abstinent youth described a generalized fear of unknown consequences as a reason to delay sex and override perceived peer norms related to sex:

And just like I'm scared in general, like I don't know what it feel like, don't know what's gonna happen, don't know how it's gonna happen. Like it's irritating. It's like oh, should I wait, or should I be like all the other girls out there. No, I should wait.

In terms of prevention, many girls continued to conflate HIV prevention with pregnancy prevention and considered themselves to be practicing safe sexual behavior if they used hormonal birth control. One participant, a mother, talked about using condoms during her sexual debut: "I never wanted to get pregnant. I never, it just . . . I have birth control now. I use condoms every once in a while if I'm not on birth control." Another mother noted, "I stopped taking my birth control because I thought I was getting fat. So that's how I got pregnant." Although these girls understood the importance of safe sex in preventing pregnancy and STIs, there were limits to their understanding of prevention methods. The fear of contracting a disease or becoming pregnant was salient, but they did not fully express the measures that would help them avoid these consequences.

Drugs, Alcohol, and Sex

During the interviews, 60% of adolescents reported drinking alcohol, 40% reported previously smoking marijuana, and 2% reported using other drugs. Several sexually active youth described using marijuana and/or alcohol prior to engaging in sex:

I was 16. Went to a party, with my niece, 'cuz we're only a couple of months apart. Got drunk, and I don't remember after that . . . I kept, I passed out and I kept waking up . . . was almost like rape or something because the guy was older.

Michelle did not regard this as her first sexual experience because it was not consensual. Several girls also reported that their romantic partners gave them marijuana or alcohol, although they did not link substance use to limiting their ability to consent.

Discussion

More than 30 years into the HIV epidemic, prevention science has made great advances in interrogating how individual behaviors are situated within a larger social and societal context. We applied a socioecological lens to highlight how the social and structural environment can inform and constrain youth decisions concerning sex. Based on the findings, we identified three mechanisms by which the neighborhood and the social environment influence individual sexual decision making among girls and young women.

The study city suffers from decades of chronic disinvestment, high poverty and unemployment rates, and a disappearing employment sector. These severe and persistent structural challenges are reflected in the fabric of the neighborhoods that envelop the lives of youth. The lack of investment also creates neighborhood disorder evidenced by high levels of crime and violence. Some reported highly sexualized environments, visible sex work, and sexual harassment. In a recent study researchers linked cumulative exposure to violence with unsafe sex, inconsistent condom use, and increased sexual partners among urban African American girls (Wilson, Woods, Emerson, & Donenberg, 2012). Participants described the ubiquity and visibility of the illegal drug market in their neighborhoods. Many reported feeling unsafe outside and opted for strategies to protect themselves, including socializing in homes, often unsupervised.

Participants experienced the long-term divestment in the city as an absence in their social worlds. Similarly, they consistently discussed the lack of activities, local job opportunities, and safe social venues. At least one linked sexual initiation with unsupervised time. This association is supported by a review of the literature by Buhi and Goodson (2007), in which the authors found that two of the most consistent environmental constraints influencing sexual behavior and intention were friends' support of sexual behavior and the amount of time reported being home alone.

It is promising that participants who were connected to activities, programs, and sports at times exhibited stronger or more concrete future aspirations. Youth development programs can provide protective factors to buffer youth from a variety of social and environmental risk factors (Kirby, 2001).

However, these programs serve only a small portion of the city's youth, so scaling up efforts through increased investment and integrating sexual health messaging is invaluable. As evidenced by several of the accounts and past research, adolescents' first sexual experiences, sexual behaviors, and intentions to engage are often influenced by perceptions of peer norms and peer influence (Kinsman, Romer, Furstenberg & Schwarz, 1998; Sieving, Eisenberg, Pettingell, & Skay, 2006). Interventions like youth development programs that focus on groups of youth may have the added benefit of influencing youth directly and indirectly by changing peer norms.

A second related pathway is a result of the economic depression in the area and the effect on parental supervision and monitoring. In this city, few jobs offer a living wage. Participants reported that one or both parents held multiple jobs and/or worked in the afternoons and evenings to support their families, which left them with large, regular blocks of unsupervised time. However, parental monitoring was not wholly defined by physical parental presence. Consistent with previous research, perceived parental monitoring as well as parental expectations also influenced sexual decision making when parents were out of the home (Dilorio et al., 2004; Teitelman et al., 2009). This finding suggests that even if the labor market options constrain parents' ability to physically monitor their youth, parents' communication of expectations and perceived monitoring influence sexual decision making.

A final pathway occurs as a result of the prevalent drug culture in the neighborhoods. The high level of visible drug trafficking, drug use, and abuse destroy neighborhood cohesion and increase violence and crime. This may also serve to normalize marijuana and alcohol use among youth. Our sample reported significant levels of drug and alcohol use, and coupling substance use with sexual decision making poses difficult challenges to HIV prevention efforts with adolescents. Efforts to dismantle open-air drug markets in urban neighborhoods should be considered. In addition, continued focus on preventing co-occurring risk behaviors like sexual risk behavior and drug use is extremely useful in environments similar to the study city.

The neighborhoods experienced by participants were typified by violence, prevalent drug cultures, a lack of safe socialization venues, and parents working long hours. The lack of safe

Nursing professionals can consider ways to integrate sexual health promotion into established youth networks by leveraging the popularity of social media.

spaces and programs facilitate regular periods of unsupervised time and provide frequent opportunities to engage in sex and other risky behaviors.

Implications for Practice

Most of the participants could not name places to receive assistance with STIs, sexual health, or pregnancy in their communities. This void may be due to an overall lack of resources or a lack of awareness of existing resources. Prevention efforts that focus on the riskiest girls may have the unintended consequence of leaving nonactive girls without information about available supports in their neighborhoods. We suggest integrating sexual health messaging into the social fabric of adolescents' lives and bringing sexual health education outside of traditional education boundaries. One way to accomplish this messaging is to integrate prevention efforts into youth social media, as social media may provide new ways of reaching youth living in disadvantaged spaces. Social media provide a prominent channel of communication in this population, as with most U.S. youth populations (Lenhart, Purcell, Smith, & Zickuhr, 2010). The findings suggest that the discourse around sex in these domains is largely problematic and does not support well-informed decision making.

Even the most persuasive messaging does not take the place of increased investment in the lives of girls and young women. We know how to change beliefs related to HIV and safe sex (Jemmott, Jemmott, Braverman, & Fong, 2005). However, required resources for effective interventions are lacking in many neighborhoods. Continued investment in and development of evidence-based, community-level, HIV interventions are also crucial. Social media offers new opportunities to reach marginalized communities but also amplifies negative practices such as slut shaming. We advocate for resources for youth development and achievement, improved labor markets, and interventions that dismantle the endemic drug markets in neighborhoods. The fight against HIV is intertwined with the fight for quality neighborhoods, safety, and employment opportunities. Achieving

health equity will require strategic reinvestment in the city.

Limitations

Although we asked participants to describe their experiences leading up to sexual decision making, the observed associations cannot be assumed to be causally linked. Further investigation is needed to test these pathways and develop interrupting mechanisms.

Conclusion

After decades of solid prevention efforts, girls and young women continue to make sexual decisions in less-than-optimal contexts and exhibit problematic beliefs about sex and sexual health; many lack awareness of prevention resources in their communities. We should continue to consider neighborhood, social, and new media environments as not only the contexts in which individual decision making occurs, but also as systems ripe for targeted intervention.

Acknowledgement

Funded by Rutgers University. The authors thank Kristin Davis, Chantelle Davis, Nikole DeLecce, Jeremy Lopez, and Stephen Robinson.

REFERENCES

- Adimora, A. A., Schoenbach, V. J., & Floris-Moore, M. A. (2009). Ending the epidemic of heterosexual HIV transmission among African Americans. *American Journal of Preventive Medicine, 37*(5), 468–471.
- Aral, S. O., Adimora, A. A., & Fenton, K. A. (2008). Understanding and responding to disparities in HIV and other sexually transmitted infections in African Americans. *Lancet, 372*(9635), 337–340.
- Biello, K. B., Niccolai, L., Kershaw, T. S., Lin, H., & Ickovics, J. (2013). Racial differences in age at first sexual intercourse: Residential racial segregation and the Black-White disparity among US adolescents. *Public Health Reports, 128*, 23–32.
- Bronfenbrenner, U. (1992). Ecological systems theory. In R. Vasta (Ed.), *Six theories of child development: Revised formulations and current issues* (pp. 187–249). London, UK: Jessica Kingsley Publishers.
- Buhi, E. R., & Goodson, P. (2007). Predictors of adolescent sexual behavior and intention: A theory-guided systematic review. *Journal of Adolescent Health, 40*(1), 4–21.
- Centers for Disease Control and Prevention. (2013). *Incidence, prevalence, and cost of sexually transmitted infections in adolescents and young adults in the United States*. Atlanta, GA: Author. Retrieved from <http://www.cdc.gov/std/stats/sti-estimates-fact-sheet-feb-2013.pdf>
- Corbin, J. M., & Strauss, A. (1990). Grounded theory research: Procedures, canons, and evaluative criteria. *Qualitative Sociology, 13*(1), 3–21.
- Denning, P. H., DiNenno, E. A., & Wiegand, R. E. (2011). Characteristics associated with HIV infection among heterosexuals in urban areas with high AIDS prevalence – 24 cities, United States, 2006–2007. *Morbidity and Mortality Weekly Report, 60*(31), 1045–1049.
- DiClemente, R. J., Salazar, L. F., Crosby, R. A., & Rosenthal, S. L. (2005). Prevention and control of sexually transmitted infections among adolescents: The importance of a socio-ecological perspective—A commentary. *Public Health, 119*(9), 825–836.
- Dilorio, C., Dudley, W. N., Soet, J. E., & McCarty, F. (2004). Sexual possibility situations and sexual behaviors among young adolescents: The moderating role of protective factors. *Journal of Adolescent Health, 35*(6), 528.e11–528.e20.
- Dupere, V., Lacourse, E., Willms, J. D., Leventhal, T., & Tremblay, R. E. (2008). Neighborhood poverty and early transition to sexual activity in young adolescents: A developmental ecological approach. *Child Development, 79*(5), 1463–1476.
- Elliott, D. S., Wilson, W. J., Huizinga, D., Sampson, R. J., Elliott, A., & Rankin, B. (1996). The effects of neighborhood disadvantage on adolescent development. *Journal of Research in Crime and Delinquency, 33*(4), 389–426.
- Fishbein, M., & Yzer, M. C. (2003). Using theory to design effective health behavior interventions. *Communication Theory, 13*(2), 164–183.
- Gardner, M., Martin, A., & Brooks-Gunn, J. (2012). Exploring the link between caregiver affect and adolescent sexual behavior: Does neighborhood disadvantage matter?. *Journal of Research on Adolescence, 22*(1), 135–149.
- Garwick, A., Nerdahl, P., Banken, R., Muenzenberger-Bretl, L., & Sieving, R. (2004). Risk and protective factors for sexual risk taking among adolescents involved in Prime Time. *Journal of Pediatric Nursing, 19*(5), 340–350.
- Halfors, D. D., Iritani, B. J., Miller, W. C., & Bauer, D. J. (2007). Sexual and drug behavior patterns and HIV/STD racial disparities: The need for new directions. *American Journal of Public Health, 97*, 125–132.
- Jemmott, J. B., Jemmott, L. S., Braverman, P. K., & Fong, G. T. (2005). HIV/STD risk reduction interventions for African American and Latino adolescent girls at an adolescent medicine clinic—A randomized controlled trial. *Archives of Pediatric and Adolescent Medicine, 159*(5), 440–449.
- Kearney, M. S., & Levine, P. B. (2012). Why is the teen birth rate in the United States so high and why does it matter? *Journal of Economic Perspectives, 26*(2), 141–163.
- Kerrigan, D., Witt, S., Glass, B., Chung, S., & Ellen, J. (2006). Perceived neighborhood social cohesion and condom use among adolescents vulnerable to HIV/STI. *AIDS and Behavior, 10*(6), 723–729.
- Kirby, D. (2001). *Emerging answers: Research findings on programs to reduce teen pregnancy*. Washington, DC: National Campaign to Prevent Teen Pregnancy. Retrieved from <http://www.urban.org/events/thursdayschild/upload/Sarah-Brown-Handout.pdf>
- Kinsman, S. B., Romer, D., Furstenberg, F. F., & Schwarz, D. F. (1998). Early sexual initiation: The role of peer norms. *Pediatrics, 102*(5), 1185–1192.
- LaRossa, R. (2005). Grounded theory methods and qualitative family research. *Journal of Marriage and Family, 67*(4), 837–857.
- Latkin, C. A., Curry, A. D., Hua, W., & Davey, M. A. (2007). Direct and indirect associations of neighborhood disorder with drug use and high-risk sexual partners. *American Journal of Preventive Medicine, 32*(6), S234–S241.
- Leichter, J. S., Chesson, H. W., Sternberg, M., & Aral, S. O. (2010). The concentration of sexual behaviours in the USA: A closer

- examination of subpopulations. *Sexually Transmitted Infections*, 86(3), iii45–iii51.
- Lenhart, A., Purcell, K., Smith, A., & Zickuhr, K. (2010). *Social media and young adults*. Washington, DC: Pew Internet & American Life Project. Retrieved from <http://files.eric.ed.gov/fulltext/ED525056.pdf>
- Leventhal, T., & Brooks-Gunn, J. (2000). The neighborhoods they live in: The effects of neighborhood residence on child and adolescent outcomes. *Psychological Bulletin*, 126(2), 309–337.
- Penman-Aguilar, A., Carter, M., Snead, M. C., & Kourtis, A. (2013). Socioeconomic disadvantage as a social determinant of teen childbearing in the U.S. *Public Health Reports*, 128, 5–22.
- Sameroff, A. J. (1995). General systems theories and developmental psychopathology. In D. Cicchetti & D. J. Cohen (Eds.), *Developmental psychopathology, vol. 1: Theory and methods* (pp. 659–695). Oxford, UK: John Wiley & Sons.
- Sandelowski, M. (2001). Real qualitative researchers do not count: The use of numbers in qualitative research. *Research in Nursing & Health*, 24(3), 230–240.
- Sieving, R. E., Eisenberg, M. E., Pettingell, S., & Skay, C. (2006). Friends' influence on adolescents' first sexual intercourse. *Perspectives on Sexual and Reproductive Health*, 38(1), 13–19.
- Stevens, R., & Hornik, R. C. (2014). AIDS in black and white: The influence of newspaper coverage of HIV/AIDS on HIV/AIDS testing among African Americans and White Americans, 1993–2007. *Journal of Health Communication*, epub ahead of print.
- Teitelman, A. M., Bohinski, J. M., & Boente, A. (2009). The social context of sexual health and sexual risk for urban adolescent girls in the United States. *Issues in Mental Health Nursing*, 30(7), 460–469.
- United States Census Bureau. (2010). *State and metropolitan area data book*. Washington, DC: Author.
- Williams, D. R., & Collins, C. (2001). Racial residential segregation: A fundamental cause of racial disparities in health. *Public Health Reports*, 116(5), 404–416.
- Wilson, H. W., Woods, B. A., Emerson, E., & Donenberg, G. R. (2012). Patterns of violence exposure and sexual risk in low-income, urban African American girls. *Psychology of Violence*, 2(2), 194–207.