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“THE TIME HAS ARRIVED”: PERCEPTIONS OF BEHAVIORAL ADJUSTMENTS IN THE CONTEXT OF PRE-EXPOSURE PROPHYLAXIS AVAILABILITY AMONG ADOLESCENTS IN SOUTH AFRICA

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Abstract

Antiretroviral pre-exposure prophylaxis (PrEP) holds enormous potential to reduce HIV acquisition in key populations globally. We conducted an exploratory PrEP acceptability study using qualitative methodology among adolescents and service providers in the Western Cape Province of South Africa to inform future PrEP implementation challenges in South Africa and other high-prevalence African countries. Semistructured focus groups and in-depth individual interviews were conducted among 57 adolescents 16–17 years of age, living with and without HIV, and 25 clinical service providers. Adolescents and service providers expressed concerns that the availability of PrEP would lead to sexual disinhibition and a reduction in condom use among adolescents. Unexpected positive impacts included predictions that PrEP might encourage disclosure in serodiscordant partnerships and help normalize pill-taking in the community. Careful age, gender, and developmentally appropriate messaging will be needed to ensure adolescents understand partial efficacy and view PrEP as a component of combination prevention.

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Keywords

HIV/AIDS; adolescents; pre-exposure prophylaxis; PrEP; prevention; risk compensation

Antiretroviral (ARV) pre-exposure prophylaxis, or PrEP, has been found in clinical trials to be an efficacious biomedical HIV prevention strategy that holds enormous potential to reduce HIV acquisition in key populations globally (Grant et al., 2010; Jiang et al., 2014). Although different modalities of PrEP administration are under consideration (oral, topical, injectable, insertable slow-release devices, etc.), efficacy of oral PrEP currently has the most empirical support. A global systematic review and meta-analysis by Fonner and colleagues (2016) of 18 oral PrEP studies conducted among adults demonstrated a 51% reduction in risk for HIV infection compared to placebo (risk ratio [RR] = 0.49, 95% confidence interval [CI] [0.33, 0.73], $p = .001$) and a 70% reduction in risk when adherence was high (RR = 0.30, 95% CI [0.21, 0.45], $p < .001$). While this research establishes the efficacy of oral PrEP among adults, adolescents under 18 years of age remain inadequately represented in biomedical HIV prevention research. The relative paucity of adolescent-focused PrEP studies compared to adult studies poses a significant challenge for understanding how this biomedical prevention strategy should be integrated into effective combination prevention packages for this high-risk group (Pace, Siberry, Hazra, & Kapogiannis, 2012).

Adolescents and young people (ages 15–24) account for over one-third of all new global HIV infections, representing a key population for prevention efforts (UNAIDS, 2016). Research is needed to identify specific considerations relevant to the implementation of PrEP among adolescents in generalized HIV epidemic settings including drug safety, adherence, and effectiveness as well as behavioral and social consequences of PrEP use. To address this need, several open-label PrEP demonstration studies aimed at understanding key barriers and facilitators to PrEP acceptability, uptake, and adherence have recently been completed among young people and are currently planned or ongoing among adolescents under the age of 18 in sub-Saharan Africa (Gill et al., 2017; Hosek et al., 2016).

With PrEP research rapidly expanding to adolescent populations, there has been concern about the theoretical concept of “risk compensation,” which generally refers to the potential for behavioral adjustments (e.g., higher sexual risk behavior, lower condom use) associated with PrEP implementation due to lower perceived risk for HIV transmission (Eaton & Kalichman, 2007; Vissers, Voeten, Nagelkerke, Habbema, & de Vlas, 2008). While Fonner and colleagues (2016) found no association between PrEP use and increases in sexual risk behavior among adults, this concern is particularly expressed with regard to young people. Cognitive, psychological, and emotional processes unique to the adolescent developmental trajectory are likely to influence PrEP acceptability, understandings of messages about PrEP effectiveness, and behavioral decisions in different ways than for adults. Adolescent development is characterized by higher levels of impulsivity, limited behavioral control, and risk taking (Arnett, 1992; Steinberg, 2008). For adolescents facing milestones such as sexual debut and increased engagement in sexual partnerships, lower perceptions of risk for HIV infection as a result of PrEP might impact decisions to initiate or engage in riskier sexual

behaviors (Cassell, Halperin, Shelton, & Stanton, 2006; Guest et al., 2008; Padian, Buve, Balkus, Serwadda, & Cates, 2008).

An assessment of potential behavioral adjustments related to PrEP among adolescents is needed to better understand the implementation challenges for South Africa and other countries with high HIV prevalence. We conducted an exploratory study using qualitative methods to identify types of PrEP-related behavioral adjustments that may occur among adolescents in a large urban township with high HIV prevalence and serodiscordance in Western Cape, South Africa. This research examined both adolescent and service provider perspectives to inform behavioral and health communications strategies that facilitate adolescent understanding of PrEP safety and efficacy and help to optimize the translation of clinical findings into public health practice.

METHODS

We conducted an exploratory study using qualitative methodology in Western Cape, South Africa in 2015–2016. We conducted $k = 5$ focus groups with HIV-positive adolescents (involving 24 participants total) and $k = 5$ focus groups with HIV-negative adolescents (involving 31 participants total). Adolescents living with and without HIV were included in this study to better inform PrEP acceptability among both adolescents who would be eligible for PrEP and their potential partners, given the high rates of serodiscordant partnerships in this context (De Walque, 2007; Eyawo et al., 2010). After these focus groups were completed, follow-up individual interviews aimed at exploring more personal and in-depth issues were conducted among HIV-positive ($n = 10$) and HIV-negative ($n = 25$) adolescents. A subset of 33 adolescents who participated in the focus groups and 2 additional adolescents who missed the focus group sessions completed individual interviews. Lastly, we conducted $n = 25$ interviews with clinical service providers (adolescent HIV researchers, doctors, nurses, counselors, etc.).

HIV-positive adolescents were recruited from adolescent HIV treatment clinics and HIV-negative adolescents were recruited through door-to-door community sampling. HIV-positive adolescents had been perinatally infected and were eligible if they met the following inclusion criteria: (1) 16–17 years old, (2) self-reported HIV-positive status, and (3) for those who self-reported HIV-positive status, the additional criterion of self-reported comfort discussing HIV status in an adolescent group. HIV-negative adolescents were eligible if they met the following inclusion criteria: (1) 16–17 years of age and (2) self-reported HIV-negative status. Focus group participants were separated by HIV status. Trained research staff obtained written parental consent and adolescent assent. Participants who were unable to give informed assent and/or whose parents/caregivers did not provide consent were excluded. Interviews were conducted in isiXhosa or English.

Prior to the start of each focus group and interview, facilitators orally provided adolescents with a description of oral PrEP, including information about efficacy, side effects, HIV testing requirements, and the importance of adherence derived from adult trials. Adolescent participants then completed a brief audio computer-assisted self-interview (ACASI)–administered survey that included questions about lifetime sexual behaviors and condom

use, willingness to use PrEP, willingness to support a partner's use of PrEP, and sociodemographic characteristics. Focus groups and interviews were guided by semistructured protocols that explored predicted behavioral impacts of PrEP, including how PrEP might affect one's: (1) sexual initiation, (2) choice of partners, (3) male and/or female condom use, and (4) negotiation around sexual protective behaviors. Focus group discussions and individual interviews lasted approximately 1–1.5 hours and were digitally audiotaped. Participants received 150 Rand (approximately 10 USD) for completing focus groups and/or individual interviews.

We also conducted in-depth interviews with service providers, which included HIV specialists and non-HIV specialists, who would potentially be involved in prescribing or supporting future adolescent PrEP. Service providers were eligible if they were: (1) 18 years or older and (2) had 3 or more years of experience providing services to adolescents. An initial seed pool of participants was generated in consultation with the study team, and these initial participants referred professional peers to the study. Following written consent, service providers were given a description of oral PrEP, and a brief quantitative survey was administered. Then, one-on-one interviews were conducted in isiXhosa or English. Interviews were guided by semistructured protocols exploring perceptions of risk compensation behavior. Interviews lasted approximately 1–1.5 hours and were digitally audiotaped. Each participant received 300 Rand (approximately 20 USD).

We conducted descriptive analysis of quantitative data using the software package SPSS 24.0 and thematic analysis of qualitative data using NVivo 10. Data were transcribed verbatim and then translated into English. All transcripts were independently coded by two coders and assessed for intercoder reliability. Coder training involved the coders independently reviewing a subset of transcripts to ensure a consistent interpretation of text and application of the coding scheme; this process was supervised by a third member of the research team, who helped to resolve inconsistencies across coders. Analysis was guided by Braun and Clarke's (2006) thematic analysis framework, which is a systematic process for identifying themes and patterns related to our overarching research questions. Data were analyzed using open coding, axial coding, and coding of marginal remarks and comparisons. Common words, phrases, sentences, and ideas were clustered to develop a codebook. These pieces of text were compiled across all interviews under specific codes and subcodes. Meaning from these codes was formulated to produce the clusters of themes presented below. All study procedures were approved by ethical review committees at Brown University (Protocol #1207000666) and University of Cape Town (Protocol #HREC 072/2013).

RESULTS

PARTICIPANT CHARACTERISTICS

Participants were 57 adolescents and 25 service providers (see Table 1). Adolescents were 16–17 years of age, 56% female, and 97% Black African. Most (93%) spoke primarily isiXhosa, and 96% had completed grade seven or higher. Twenty-four of the adolescent participants (42%) identified as living with HIV. The majority (88%) of adolescents identified as heterosexual. More than two-thirds (70%) of adolescents had ever engaged in

vaginal sex and 16% had ever engaged in anal sex. Few (16%) adolescents who had ever engaged in vaginal sex reported having one or more vaginal sex partner of HIV-positive status, and 34% reported one or more vaginal sex partner of HIV-unknown status. Less than half (44%) of adolescents who had ever engaged in anal sex reported one or more anal sex partner of HIV-positive status, and 56% reported one or more anal sex partner of unknown HIV status. Few (7.5%) sexually active participants had never used a condom; inconsistent condom use ranged from 30% to 53% depending on main or casual partner type. When asked about projected sexual behavior, 19% of adolescents planned to have vaginal sex and 3.5% planned to have anal sex in the next 3 months. With regards to interest in PrEP, 84%–90% of adolescents reported they would likely want to use PrEP with an HIV-positive partner or a partner of unknown HIV status. Further, 90% of adolescents reported they would support the use of PrEP by an HIV-negative partner if they themselves was living with HIV.

Service providers ranged in age from 30 to 63 years old (mean age = 41 years) and were primarily female (96%) and Black African (48%). Approximately half (52%) spoke English at home, 40% had a high school or equivalent degree, 12% had a bachelor's degree, and 32% had a master's or doctoral degree. The sample consisted primarily of doctors (40%), counselors (28%), and nurses (16%). All service providers reported that they would likely prescribe PrEP to sexually active adolescents under 18 years of age, and 68% reported that they would prescribe PrEP to sexually inactive adolescents. Over three-quarters (76%) of service providers said they would prescribe PrEP to adolescents who use injection drugs.

THEMATIC FINDINGS

We identified two main thematic categories from our qualitative analysis of PrEP-related behavioral adjustments. First, we observed that participants anticipated an increase in some sexual risk behaviors in the context of PrEP availability for adolescents, though there were varying perspectives on the specific types of potential behavioral risks and the subgroups likely to engage in greater risk. Second, we learned about the potential benefits of PrEP for adolescents in high-prevalence settings related to sexual decision making, disclosure, and pill-taking behavior. These two main themes are elaborated upon here. Table 2 provides additional detailed illustrative quotations from participants, organized into subthemes.

PrEP-Related Sexual Risk Behavior—Both adolescents and service providers predicted that PrEP use may lead to an increase in certain sexual risk behaviors, though they anticipated that PrEP-related behavioral adjustments would be circumscribed within specific subgroups and specific types of behaviors. Adolescents generally did not interpret PrEP as part of a combination prevention strategy that incorporates condom use, and many predicted that PrEP would replace condoms even though PrEP does not prevent pregnancy and other sexually transmitted infections (STIs). For example, one female adolescent participant remarked that:

a person will probably think that she's safe because she's using the PrEP pill. So she won't be thinking about using a condom. Like, to her, she's already safe from falling pregnant or from getting other diseases whereas that's not the case. (HIV-positive adolescent; individual interview)

Service providers expressed similar concerns related to increases in condomless sex and thus STI and pregnancy rates due to perceived reductions in risk with PrEP and difficulty understanding efficacy messages. Therefore, service providers stressed the importance of creating age and developmentally appropriate messaging to explain the partial efficacy of PrEP to adolescents. Reflecting on this potential risk, one service provider commented:

Well, I think one thing that we maybe would have to be very clear about how we phrase it, that's it's not a license to have sex without condoms as well ... When we talk about family planning, we talk about being double safe, and it might be that we could encourage girls to be on weekly injectables or on contraceptive implants as well as using condoms. It might be that we could just translate that over into PREP as well. (Service provider)

Further, adolescents predicted that riskier behavioral adjustments will be less likely among those who understand the implications of partial efficacy. For example, one HIV-positive adolescent stated, "If they know that PrEP is 90%, I think that they may also use condom" (HIV-positive adolescent; individual interview).

Some participants predicted that condom use would continue among those with multiple partners and those who practiced consistent condom use behaviors prior to PrEP. Specifically, one adolescent noted that:

I think the ones who normally use condom can combine them, but the ones who in actual fact did not like it, it could be an easy way for them to realize that "No, I was not liking a condom anyway." (HIV-negative adolescent; individual interview)

Service providers further suggested that:

I think the use of [PrEP] will decrease the use of condom[s] [in] people who know that they don't have multiple partners. But in people who know they have multiple partners, they will stick to condom while they are using PrEP. (Service provider)

Adolescents predicted gender differences in the behavioral implications of PrEP, suggesting that boys would be more likely to instigate risky sexual behaviors with PrEP. One adolescent noted that:

It could be the boys mostly [who would want to stop using condoms]. It's the boys that I see that they don't like a condom, it could be a boy who tells a girl, and says, "Let's stop the condom, here is PrEP, we are using [PrEP], so we will not get infected." (HIV-negative adolescent; individual interview)

There were variable predictions from service providers and adolescents that PrEP would change timing of sexual debut or number of partners. For example, one adolescent explained:

Yes, they are going to start earlier because what they were scared of will be preventable, so there is nothing hindering her not to start having sex because she prevents pregnancy, and also HIV. The STIs are treatable, so there is nothing else to stop her. (HIV-negative adolescent; individual interview)

Others noted that adolescents would not alter their behavior and that PrEP may even encourage mindfulness surrounding sexual decision making. For example, one service provider noted that:

Actually, I think maybe even paradoxically, if teens are taking PrEP in preparation or in advance, or before or after sexually risky behavior, it might make them more mindful and conscious that they're engaging in those kind of practices. (Service provider)

Lastly, adolescents also spoke to predicted behavioral adjustments related to partner type, suggesting that the availability of PrEP might allow female adolescents the security to engage with older partners, despite perceiving them to be a riskier sexual contact. For example, one adolescent highlighted the benefits of PrEP to females with older serodiscordant partners:

Some, those who love money, they might [sleep with people who are older than them] ... Now she can just do things without caring. She can get involved with an older person, even he's married, because she knows that she's safe even if that older person has HIV. (HIV-negative adolescent; individual interview)

PrEP Critical for Adolescent Health in Settings Where Serodiscordant Partnerships Are Common—Adolescents and service providers agreed that PrEP is critical for adolescent health in generalized HIV epidemic settings where serodiscordant partnerships are common. Adolescents suggested that, if PrEP was available, HIV-negative adolescents could safely navigate partnerships with adolescents who are living with HIV knowing they are protected. Further, service providers thought PrEP might allow adolescents to have healthier sexual relationships and offers both sexes the opportunity to safely negotiate sex. For example, one service provider explained:

I think if it's more widely available as just part of the whole conversation around sexual initiation, and preparing yourself, and protecting yourself, I think it just makes it broader in a way. There's such resistance to condom use that I think there being an alternative, albeit flawed and offered in a different way, which gives more fair control to the different sexes will open the conversation. (Service provider)

Service providers in particular felt that PrEP may encourage status disclosure among HIV-positive adolescents to their partners. PrEP offers a solution with which adolescents living with HIV can disclose their status and may mitigate the fear of partner loss. One service provider explained:

That's where I see the most powerful place because if somebody can come to you and say, "Look, I have a partner. They're negative. I'm positive. I want to protect them," you've already got their buy-in and the motivation and the interest, and I think that would be a powerful way to use it. I think it also makes it easier for HIV-positive adolescents to disclose because for now the only thing that happens when you disclose is you might lose your relationship, be exposed to stigma, whereas if you disclose with a solution, I think that might encourage disclosure. (Service provider)

Further, adolescents suggested that the availability of PrEP may facilitate discussion surrounding HIV status because testing would be required to receive PrEP. One adolescent suggested:

I can tell [my partner] that, “You know, brother, if you take PrEP you must know your status You must know that you are negative, you must first go and test.” (HIV-negative adolescent; individual interview)

Lastly, both adolescents and service providers predicted that the use of ARV medication by those who are HIV negative for prevention may reduce the stigma associated with taking ARVs for treatment, which may have important implications for adherence to both PrEP and ARV treatment. Service providers asserted, “You can destigmatize it. ... You’re taking a pill. It doesn’t matter what the pill is because all these pills, they all look the same” (Service provider).

Further, adolescents predicted that PrEP might help to normalize pill-taking in the community, allowing adolescents to take their medication in public without fear of stigma. One adolescent proposed:

So, like, everybody in the neighborhood, the [HIV]-positive ones and the [HIV]-negative ones could feel free, like, to take treatment in front of the other without the other one asking, “What are you taking?” You’ll feel taking the treatment because, “It’s mine. The time has arrived Let’s ‘eat’ [take the pill].” (HIV-negative adolescent; focus group)

DISCUSSION

A number of ongoing and planned PrEP implementation studies focusing on adolescents in South Africa will provide evidence on the drug’s acceptability and effectiveness to inform PrEP policies for this key population. In this research, adolescents and service providers suggested that PrEP availability may lead to increases in sexual risk behavior among some adolescents, which is consistent with the theoretical concept of risk compensation that has been raised previously. Anticipated behavioral adjustments described in this research, however, do not depict a uniformly negative perspective about behavioral disinhibition in the wake of PrEP rollout. Instead, they provide a more nuanced view that can inform comprehensive PrEP education and implementation strategies for adolescents in South Africa.

Some of the factors contributing to potential risk compensation are identified. Adolescents and service providers expressed concerns that increased risky sex might occur among some adolescents due to their beliefs in the highly protective effects of PrEP against HIV transmission. Adolescents described how PrEP might be perceived as a replacement for condoms, especially among adolescent boys who might be generally disinclined to use condoms. Further, adolescents suggested that girls may view PrEP as a viable option for HIV protection with older sexual partners, with whom their sexual decision making might be limited due to age and power differences. Importantly, risk compensation was not viewed as inevitable. Many adolescents may continue to use condoms while taking PrEP due to concerns about the drug’s partial efficacy. Careful age, gender, and developmentally

appropriate messaging will be needed to ensure adolescents understand partial efficacy and view PrEP as a component of combination prevention in order to minimize the likelihood for greater sexual risk behavior in the context of PrEP availability.

In light of these noted behavioral adjustments, providers prescribing PrEP to adolescents would benefit from skills training on effective methods for assessing adolescent patients' sexual risk and explaining in developmentally appropriate language the nature of PrEP's partial efficacy for HIV prevention and the continued need for condom use due to the ongoing risk for HIV transmission. Provider discussions about PrEP with adolescent females must also include developmentally appropriate and nonjudgmental communication about pregnancy and reproductive health, as well as risk for other STIs with older male partners. As noted in other studies, providers' discussions about PrEP must also emphasize medication adherence and continued engagement in preventive care to monitor their sexual health.

Positive impacts of PrEP noted in this study include potential increases in sexual health promotion practices among adolescents, especially among those who have serodiscordant partners. As another option for HIV prevention in addition to condoms, PrEP availability may facilitate conversations among adolescents about their HIV risk reduction and sexual health choices and reduce tensions surrounding disclosure of HIV status. Lastly, PrEP availability has the potential to facilitate a positive outcome for adolescents living with HIV, due to a possible reduction in stigma and normalization of HIV medication in the community, for purposes of both treatment and prevention.

There are important limitations to this research. No adolescent participants were currently using PrEP, and thus their comments were based on perceptions and speculations about the normative influences of PrEP in their peer groups. Due to the qualitative nature of the study, our sample size was small and our findings might not generalize to other populations. Further, these findings are generalizable only to adolescents who received consent from a parent or caregiver to participate. By including only adolescents who were willing and able to obtain parental consent in this study, there is the potential for selection bias. Lastly, because the study took place prior to the release of any demonstration or efficacy data on PrEP with adolescents in South Africa, the findings might be temporally bound and are likely to change once PrEP becomes available and is more widely recognized among South African adolescents.

CONCLUSIONS

In conclusion, a range of behavioral adjustments are likely to occur in the context of PrEP availability to South African adolescents based on normative perceptions about lower levels of HIV transmission. However, anticipated behavioral adjustments noted in this study are not uniformly negative. Future PrEP intervention evaluation, dissemination, and implementation research must consider the behavioral and interpersonal sequelae of PrEP among adolescents in order to fully gauge the individual and community impacts of this biomedical intervention in South Africa and other high-prevalence settings.

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TABLE 1.

Participant sociodemographic characteristics

	Adolescents (<i>n</i> = 57)	<i>n</i> (%) or Mean (range)
Age (years)	16	32 (56.0%)
	17	25 (44.0%)
Sex	Female	32 (56.0%)
	Male	24 (42.0%)
	Transsexual or intersex	1 (2.0%)
HIV status	HIV negative	33 (58.0%)
	HIV positive	24 (42.0%)
Race	Black African	55 (96.5%)
	White	2 (3.5%)
Primary language	IsiXhosa	53 (93.0%)
	English	3 (5.0%)
	Afrikaans	1 (2.0%)
Education	Grade 0	1 (2.0%)
	Grade 6	1 (2.0%)
	Grade 7	2 (3.5%)
	Grade 8	16 (28.0%)
	Grade 9	23 (40.0%)
	Grade 10	11 (19.0%)
	Grade 11	2 (3.5%)
	Grade 12	1 (2.0%)
Sexual orientation	Heterosexual	50 (88.0%)
	Bisexual	3 (5.0%)
	Gay or lesbian	2 (3.5%)
	Other	2 (3.5%)
	Service Providers (<i>n</i> = 25)	<i>n</i> (%) or Mean (range)
Age (years)		41 (30–63)
Sex	Female	24 (96%)
	Male	1 (4%)
Race	Black African	12 (48%)
	White	10 (40%)
	Other	3 (12%)
Primary language	IsiXhosa	9 (36%)
	English	13 (52%)
	Afrikaans	1 (4%)
	Other	2 (8%)
Education	< Grade 12	2 (8%)
	Grade 12	7 (28%)
	Certificate/diploma	3 (12%)

	Adolescents (<i>n</i> = 57)	<i>n</i> (%) or Mean (range)
Profession	Bachelor's/honors degree	3 (12%)
	Master's degree	5 (20%)
	Doctoral degree	3 (12%)
	Other	2 (8%)
	Doctor	10 (40%)
	Counselor	7 (28%)
	Nurse	4 (16%)
	Other	4 (16%)

TABLE 2.

Illustrative quotations from participants by subtheme

	Adolescent	Service Provider
PrEP-related sexual risk behavior		
Suggestions that PrEP would change the implementation of protective behaviors, such as condom use	“Perhaps the [fact] that, yes, PrEP is available, it means now I have the time to do anything that I want to do. I can go to parties and have sex without a condom—everywhere—I can do it. So, I am now able to do sex without being cautious.” (HIV-negative; individual interview)	“Well, I’ve mentioned my just worry about condom use. I think so that how to have sex would be—yeah, I would have a concern that they would feel that now that the condoms are no longer necessary.”
Variable predictions that PrEP would change timing of sexual debut	“You know, it’s not 100% [effective], it’s 90%. She will forget this thing—perhaps you won’t even ‘eat’ it on time. Because she’s always busy, busy, busy. ... So, it’s better for her to stick to her decisions. She’s already decided that a certain time will be good for her. Then at that time she will realize—an idea will come to mind that, now that this time has arrived, the only way for me to be safe is for me to do this.” (HIV-negative; individual interview)	“I think, if people were going to have an earlier sexual debut, it’s not going to—it’s not going to be earlier because they have PrEP. They’ve got a specific trajectory. They’ve got specific peer pressures. They’ve got other stressors and other things that are going to make them do or not do whatever it is that they’re doing. It’s now a matter of are you making it safer for them in that context.”
Variable predictions that PrEP would encourage sexual promiscuity	“[The availability of PrEP] can change a person’s nature because she’s gonna tell herself that she’s safe from HIV. So, she can do whatever she wants to do. She can do it at the time she wants to do and wherever she wants to do it. Whatever she thinks. But she would feel comfortable that now ‘the coast is clear, isn’t it?’” (HIV-negative; individual interview)	“I think some are always scared, like with sex education, that it’s gonna make everybody run out and have more sex, but we know that that doesn’t happen. I would imagine with PrEP it would be the same. I would hope—and I don’t know if this is naïve—but that it would, as they say, increase the safety or awareness around sexual contacts.”
PrEP critical for adolescent health in settings where serodiscordant partnerships are common		
Suggestions that PrEP would improve sexual health in serodiscordant partnerships	“[I’m] HIV negative ... He’s HIV positive, so there is nothing to make us part ... I will take PrEP, you will take ARVs. It’s the same. Yours reduces [HIV], mine is meant for protection. ... So, like, it’s gonna be happy kind of relationship [laughs] because we’re both taking it. It’s not that we’re proud of it because we’re taking pills in our relationship. But it is just so that we can be fine.... There shouldn’t be one of us refusing to take the pill because he has HIV and then he can infect me. It boils down to communication.” (HIV-negative; focus group)	“I think when they’re at that age, they understand the implications, and I think there’s a lot of guilt and shame and fear. ‘My boyfriend demands sex, but I don’t wanna tell him I’m positive, so I have sex with him anyway. I know I’m putting him at risk, and I don’t know what to do about that.’ ... I don’t think they’re gonna run out and have sex with 10 more people. Not that kind of behavior change, but more, as I said, there’s something empowering in being able to have a healthy sex life as opposed to one that becomes this vicious cycle of shame and guilt and fear.”
Predictions that PrEP would encourage disclosure among serodiscordant partners	“[PrEP’s availability] could encourage people to talk about their status. Because, you’re gonna tell him that, ‘Here is a pill for preventing—being safe from me—because I am [HIV] positive and you are [HIV] negative. So, drink this pill if you don’t want to get infected.’” (HIV-positive; focus group)	“I’m just thinking of a few teens that I’m working with who—the fear, the barriers for them around disclosing their HIV to their partners, this is overwhelming. ... I think if they know of PrEP, I think they might think, sure, this could turn out differently. If I disclose to my partner, we talk about it. There’s still a way to navigate this relationship where my partner can be safe and they can know of PrEP and take it.”
Predictions that PrEP may relieve stigma associated with taking ARV medication	“[The community] may accept [adolescents taking PrEP], that the HIV people taking the ARV treatment, plus we are also taking the treatment of being negative, so we may live in peace, we may live free, everyone is taking treatment So the HIV-positive people may end up being free in the spirit, because we are all taking the treatment.” (HIV-negative; individual interview)	“What would happen is the prejudice against HIV would be much lessened because—HIV-positive—because there would be much less risk, so they could—they would feel much safer. That is the prejudice, and that is the feeling of shame that the HIV positives have that they don’t want to disclose because they are these ‘death machines.’”