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Women's Views on Communication with Health Care Providers about Pre-Exposure Prophylaxis (PrEP) for HIV Prevention

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Abstract

Since the beginning of the HIV epidemic in the USA, effective interventions to reduce HIV risk among cisgender women have been lacking. Although oral HIV pre-exposure prophylaxis (PrEP) is effective in pharmacologically preventing HIV infection, there is a gap between the recommended use of PrEP and PrEP uptake among eligible women. This study aimed to identify the role of patient-provider communication in PrEP decision-making among women considering PrEP. Semi-structured in-depth interviews were conducted with 41 PrEP-eligible women in Philadelphia and New York City. A thematic analysis of the responses was conducted, and a conceptual model developed and confirmed as analysis continued. Of the women interviewed, 53.6% were African American and 29.3% were Latina. Women noted that having a trusting relationship with their healthcare provider, receiving a tailored recommendation for PrEP based upon their specific needs and using their healthcare provider as support were crucial facilitators of PrEP decision-making. Lack of provider knowledge about PrEP, perceived healthcare provider stigma about their drug use and sexual activity and lack of care continuity were all identified as barriers to effective communication. Study findings can inform future interventions to enhance patient-provider communication about PrEP and increase PrEP uptake among women.

Keywords

pre-exposure prophylaxis; uptake; women's health; health communication; vulnerable populations

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Conflict of interest

The authors declare that they have no conflicts of interest.

Introduction

Although the medical and scientific community has made significant advance in the fight against HIV in the USA, the HIV epidemic among women remains a significant yet often overlooked public health concern. Women constituted 19% of the 37,881 new HIV diagnoses in the USA in 2018, with Black/African American women disproportionately comprising 58% of these diagnoses despite accounting for only 13% of the female population (CDC 2020). The primary modes of transmission among women are reported to be heterosexual contact (85%) and injection drug use (15%) (CDC 2020). A multitude of overlapping social, behavioural and biological factors increase women's vulnerability to HIV infection including lack of mutual monogamy, inconsistent condom use, intimate partner violence, substance abuse, low economic status, and hormonal changes to the vaginal mucosal environment (e.g. Sheth, Rolle and Gandhi 2016; Brawner et al. 2016). Women who use drugs and female sex workers are a particularly vulnerable sub-populations of women, especially when these categories are overlapping (Glick et al. 2019).

Pre-exposure prophylaxis (PrEP) refers to the use of antiretroviral medications by HIV-negative persons to prevent HIV infection. The only formulation currently available in the USA for cisgender women is a daily oral pill (Hodges-Mameletzis et al. 2019). Recent studies have shown daily consistent use of PrEP to be a highly effective, woman-controlled product to reduce the incidence of HIV among PrEP-eligible women (Hodges-Mameletzis et al. 2019). Although PrEP received approval from the Food and Drug Administration (FDA) in 2012, many women remain unaware of its availability or uninformed about its use due to the marketing campaigns mostly targeting men who have sex with men and transgender women (Hodges-Mameletzis et al. 2019). Although women report high interest once aware of PrEP, awareness of PrEP remains extremely low in this population (Glick et al. 2019; Johnson et al. 2020; Hirschhorn et al. 2020). Therefore, PrEP use has been generally low among women in the USA, and there are currently no effective evidence-based interventions in the USA that target uptake among cisgender women (Aaron et al. 2018; Hodges-Mameletzis et al. 2019).

Due to social and structural barriers to PrEP access, it is important to provide women not only with access to PrEP but also support to overcome these barriers. Since research about PrEP use among women is still limited, understanding of the systemic barriers that hinder women from using PrEP remains rudimentary. We do know that lack of health insurance, unavailability of childcare, transport to appointments, and a multitude of other competing priorities can limit access prevention services such as PrEP for vulnerable women (Bradley et al. 2019; Qin et al. 2020). Social factors that predispose women to HIV infection, such as substance use and intimate partner violence, can also function as barriers (Nydegger, Dickson-Gomez and Ko Ko 2020). In social contexts, some women may fear that, in taking PrEP, family and friends will make assumptions about their sexual/drug use behaviour or assume that PrEP is a medication for HIV-positive individuals rather than for prevention (Goparaju et al. 2017). Higher levels of PrEP stigma among women have been associated with lower intention to initiate PrEP (Chittamuru et al. 2020).

Healthcare provider support, and women's perceptions of this support, are key to connecting women to resources that provide initial access, undergird adherence, and maximise PrEP efficacy. In most states, PrEP can only be prescribed by a healthcare provider (physician, nurse practitioner, nurse midwife or physician assistant); therefore, discussion with a healthcare provider is usually the first step to obtaining a prescription (CDC 2018b). However, provider knowledge and comfort in prescribing is an important antecedent to women accessing PrEP in this way. Among primary care and family planning providers, lack of knowledge about PrEP, discomfort discussing PrEP-eligibility factors, and competing clinical priorities are barriers to discussing and prescribing PrEP for patients (Seidman et al. 2016; Wilson, Bleasdale and Przybyla 2020). Despite high interest in PrEP among women, a study conducted in New York City captured low knowledge of PrEP among providers who served minority women (Collier, Colarossi and Sanders 2017). Another study about PrEP decision-making among women in drug treatment noted that underestimating the ability of women who use drugs to adhere to medication may bias providers against prescribing PrEP for this high-eligibility group (Qin et al. 2020).

Despite the need for discussion about PrEP in the primary care setting, women indicated in a qualitative study that providers rarely asked about behaviours such as sexual practices and drug use related to HIV acquisition (Goparaju et al. 2017). Additionally, women felt if they disclosed such behaviours to their providers, they might experience judgment and disparaging treatment. Racial disparities in healthcare may further complicate communication. One study found that Black women had significantly higher levels of mistrust towards healthcare personnel than White women, which decreased their comfort discussing PrEP with a health care provider despite a greater interest in initiating PrEP (Tekeste et al. 2019). The existence of PrEP-related stigma among women is a relatively new phenomenon (Golub 2018; Calabrese et al. 2018); but acknowledgment of PrEP-related stigma between women and their providers remains poorly understood.

Health care providers, particularly those outside HIV specialty care, have a unique opportunity to identify and discuss behaviours which may increase the likelihood of HIV infection. To our knowledge, few studies have described the range of possible interactions between women and providers regarding PrEP, and not many have explored specific facilitators and barriers to effective patient-provider communication about PrEP for women. Much of the current literature about PrEP uptake focuses on providers' knowledge, attitudes and comfort toward PrEP. Because health care providers play such a pivotal role in PrEP decision-making, the purpose of this study was to better understand patient-provider communication from the woman's perspective. This study therefore aimed to 1) identify the role of patient-provider communication for women considering PrEP; 2) identify the barriers and facilitators to this communication; 3) and provide recommendations on how patient-provider communication can be improved. The knowledge gained from this study could then be used to tailor interventions for health care providers to increase PrEP uptake among women with an increased likelihood of HIV risk.

Methods

Women were recruited in-person, via fliers or by participant referral between February and July 2017 in New York City (NYC) and Philadelphia (PHL) from various community locations, such as drug treatment programmes, street outreach, homeless shelters and advertisement on social media. For in-person recruitment, women were approached by a member of the research team who stated they were recruiting for a research study and provided potential participants with a study flyer and brief description of the study.

A total of sixty-one women were interested in the study and, after verbally consenting to screen for eligibility, were assessed for eligibility either by phone or in person by recruitment staff. Eligibility criteria for participants were consistent with CDC and New York State guidelines for PrEP eligibility for women at the time of the study (2017) and included the following: being age 18–55 years, HIV negative, cisgender women who have had sex with men in the past 6 months; reporting condomless vaginal or anal sex with a male partner *or* any injection drug use in the past 6 months; *and* reporting at least one additional sexual behaviour or drug use related risk factor according to CDC and New York State PrEP eligibility guidelines. All eligible women (n=47) were scheduled for a study visit. Six eligible women did not show for their scheduled interview. The remaining 41 eligible women completed a study visit lasting 1–2 hours, which took place in a private office in the community or at the research site.

Research interviewers were all from minority racial/ethnic backgrounds and included a female nurse/research trainee, a male physician/research trainee, and experienced female research interviewers. All research staff who conducted interviews were trained via a one day in-person training session which included role-play and feedback. For quality assurance throughout the study, ongoing feedback was provided to interviewers by the investigators through review of select recordings for each interviewer.

During the study visit, participants met one-on-one with an interviewer who completed the informed consent process with the participant and facilitated the in-depth, audio-recorded interview using a semi-structured interview guide (see online supplemental appendix). All discussion regarding PrEP in the interview referred to the oral regimen (emtricitabine/tenofovir disoproxil fumarate taken daily), as this was the only PrEP formulation approved for women in 2017. Participants also completed a short health and demographic survey electronically on a tablet, or on paper if Wi-Fi was not available at the study location.

After the study visit, women were compensated with $50 along with a local health and social resources guide. Women were also encouraged to refer up to three other women in their social network; they received an additional $10 for each woman they referred who was eligible and completed a study visit. Audio recordings were transcribed and checked for accuracy, and the surveys and interview transcripts were de-identified. This study received approval from the Institutional Review Boards at the University of Pennsylvania and the New York Blood Center.

Data Analysis

Thematic content analysis was used to focus on patient-provider communication within the semi-structured in-depth interview transcripts (Nowell et al. 2017). Coding was conducted using NVIVO 12 software. Initially, we used grounded theory open coding to annotate each transcript line by line and identify codes related to the patient-provider relationship (Charmaz 2014). Participants' perspectives were conveyed in first person and third person descriptions of actual or anticipated experiences. Selected transcripts were then coded independently by two members of the study team; coding was compared and discrepancies resolved, resulting in the final codebook with 19 codes. No new codes emerged after this codebook. Two additional study team members deductively applied established codes to the remaining 37 transcripts. Noting significance and frequency of codes, memos were created to identify patterns across categories and to theorise about the connections. These themes and concepts were amplified and enriched, reaching sufficient levels of saturation after the analysis of 15 interviews. A conceptual model, based on the data, was developed early in this process and was confirmed as analysis continued (*see* Figure 1).

Results

Sample demographics

Demographic characteristics of the 41 participants (19 in NYC and 22 in PHL) are shown in Table 1. Over half of the participants were Black (53.6%) and 29.3% were Hispanic/Latina. Their mean age was 38.6 years old, with a range from 18 to 54 years old. About one-third had received education beyond high-school and over two-thirds were unemployed. Nearly all (90.2%) had health insurance. Half of the women reported having multiple male partners in the prior 6 months. Two-thirds had a primary male partner. Most (71.8%) reported not using a condom the last time they had vaginal sex, and 68% of those who reporting anal sex (n=25) reported not using a condom the last time they had anal sex. More than half (65.9%) received care from a medical doctor's office while the remaining received care from free health/community clinics (22%) or the emergency department (12.2%). Seven (19.4%) had injected drugs in the past 6 months, and about half of the participants had been enrolled in a drug treatment programme in the past 6 months.

Qualitative findings

The qualitative results of this study are organised in four main themes identifiable across both cities: 1) availability of PrEP information from a provider; 2) relationship with provider; 3) honesty with provider, subthemes: 3a) embarrassment and 3b) judgement; 4) healthcare providers as support. Pseudonyms are used to preserve participant confidentiality.

Availability of PrEP Information from Provider—Many women had not heard of PrEP prior to the interview; those who had heard of PrEP had often learned of it through advertisements or friends rather than from their healthcare provider. When asked where PrEP information should be offered, most believed that obstetrics and gynaecology offices, primary care facilities, sexual health clinics, drug treatment facilities, and other places women frequent for routine medical care should offer it:

> "…I think mainly it should be women who go for their check-ups, you know their physicals, like I think that would be the best way." (Chantel, Age 27, Black)

> " … Putting the information out there to a whole lot of clinics, a whole lot of [drug] treatment facilities, programmes, shelters. Like there's so many places where women are in need of information." (Deborah, Age 53, Black)

> "It would be really cool if they did it at Planned Parenthood… the doctors [there] are easy to talk to. You don't have to see them about other stuff, just that kind of stuff." (Heather, Age 30, White)

One participant believed there was a lack of PrEP knowledge among healthcare providers who are not infectious disease specialists, stating: "Doctors don't recommend PrEP. My doctor didn't know nothing about PrEP. The infection control doctor knows about PrEP because he's [in] an infection clinic. But every doctor don't know about it" (Cherise, Age 32, Black).

Another barrier mentioned to starting PrEP was not understanding what it is or why it is useful if one is not already infected with HIV:

> "Here's this pill, it prevents HIV. Take it every day. Okay. Why do I need prevention if I don't have it? Give me some information on it. Something. You know, everybody don't get information on it. I talked to my primary care about it because you're the one prescribing it to me. Some primary care [providers] may say, 'oh, the pharmacist will let you know any information. Ask the pharmacist about…' No, you prescribed it. You tell me… You don't want to ask a question about a medicine for HIV to a pharmacist because you're out in public." (Cherise, Age 32, Black)

Simply giving someone a pamphlet of information was not enough. Cherise wanted an explanation from a prescribing provider because she believed they had the responsibility to confidentially explain PrEP information without delegating the task to others.

Relationship with Provider—When asked to describe how their relationship with their health provider could affect PrEP access, many women discussed the challenges and frustrations that result from a lack in consistency of providers, even within the same clinic:

> "And it's hard when you don't get the same provider. It is hard, when you have a different person every time you go there… you don't build a bond to talk to them about these things. Even if you have a health problem, you know you have it, but you're nervous to tell them, because you don't know how they'll take it or act towards you because they're a new person. You need to build a bond with them in the first place." (Ana, Age 31, White)

Women highlighted how the longevity (or lack thereof) of their relationship with their health care provider could affect their comfort in disclosing personal health information, specifically regarding drug use or sexual risk behaviours:

> "I felt a little uncomfortable about her asking me like what did you do, why did you feel like you had to? I didn't understand like, you know maybe that's just standard I

> don’t know. That was my first time actually seeing her, too. But you know, I didn’t go back. I had a follow-up appointment, but I never went.” (Crystal, Age 44, White)

While most informants cited the importance of an established relationship with their providers, one stated that she would rather talk to a provider she did not know to prescribe her PrEP, noting that the anonymity with a new provider made her feel more secure disclosing sensitive information:

> “I don’t want to talk to my doctor…about, you know [PrEP eligibility factors]… I don’t know it’s the trust…or I would rather do somebody that, you know, behind closed doors that don’t know me like that.” (Tracy, Age 48, Black)

Women who reported positive relationships with their providers, which could facilitate conversations about sensitive topics like eligibility for PrEP, primarily cited the personality and the respect shown to them as the reason for their comfort and trust in their provider:

> “I love her, she’s great. She’s down to earth, and she talks to you like a person.” (Sheila, Age 43, White)

> “I trust [my provider]… Because when I first went there, I was scared. And she made me feel very comfortable because she started talking to me and let me know that she was there for me and I could talk to her about anything. She will not know what’s wrong with me unless I let her know. That’s what she likes to do, take care of people, she says.” (Moriah, Age 47, Black)

Other women mentioned that the gender of their provider influenced their comfort in the relationship when discussing PrEP eligibility. Some preferred talking with a female provider due to female relatability, while others noted past trauma that elicited discomfort when seeing a male provider:

> “I think it would be easier with a female doctor for sure… when I have a problem and a hot male doctor comes in. Like, I don’t want to talk to you about this.” (Heather, Age 30, White)

> “Ya’ know, [my provider] is a female so I feel a little more comfortable with her.” (Tracy, Age 48, Black)

> “I could say I’d feel uncomfortable sitting there with a man… I wouldn’t be uncomfortable with a man if he came in every time, if that was my doctor every time, but when it’s not… They’re touching on you. You don’t know if they’re doing it to please themselves or doing it to help you. And especially with the lifestyle I’ve lived for a long time. The experiences I’ve had on the streets with men aren’t pretty and I don’t like that.” (Ana, Age 31, White)

Honesty with Provider—When asked about honesty and disclosing risk behaviours, a few women were honest with their providers if disclosure meant an expedited diagnosis or access to vital health resources:

> “I’m almost always honest. You have to let the doctor know what’s going on with you if you want to be treated properly. Because they’ll never get to the root of your illness if you’re not telling them the whole problem.” (Phylicia, Age 46, Black)

> "You know they're gonna tell you that you wasn't supposed to do that… You still have to tell them the truth 'cause at the end of the day whether you tell them yes or no, they have the test results… they're the one that will be able to help you." (Shawna, Age 37, Black)

> "If it was something, I think would really extremely hurt me in the long run, I don't think I'd withhold it, no matter who the person was. I don't care what they say… I would still probably bring it up." (Ana, Age 31, White)

Some women described limiting disclosure, stating that they were not honest with their provider unless they felt it necessary to treat the issue for which they were seeking care:

> "…if they ask you, do I use drugs? Or do you smoke weed? You don't need to know all that. I mean now if you find it in my blood then hey. Just don't ever tell me anything about it cause I don't wanna feel the embarrassment. But you know… on the low. So I don't have to tell you, you're a doctor so you figure it out. Unless there's something really, really, really wrong with me like then I'm gonna tell the doctor everything because that's also how they make their assumptions 'cause they don't just test and always find something. Sometimes they have to assume what you have beforehand. Based off of your symptoms and all these different key points that they put in. So if something's really, really wrong I would suggest telling the doctor everything. Like yes, I smoke like twenty-thousand cigarettes a day, I'm just being truthful. But if it's something like a cold, do you really need to know how many cigarettes I smoke?" (Isa, Age 26, White/Black – Hispanic/Latina)

> "I talk to her about anything [regarding drugs]…She knows that I was clean for a little while. She knows everything that's going on in my house. And she knows that I had a relapse, too. She was just like take it day by day… and if I need help then she's there. [But regarding sex] I don't talk about that. Some things you can't talk 'cause it ain't anybody's business." (Diana, Age 49, Black)

One woman described the barrier to honesty presented by addiction, likening drug use to an unhealthy relationship that discourages disclosure:

> "Maybe your drug use [could prevent honesty with a provider]… that drug tells you 'don't say nothing, she might say something'… It seems like the drug always tells you, '[as if the drug were speaking to her] No. You don't got no friends but me. I'm your friend, your one and only friend'." (Ashley, Age 34, Black)

Women who had established consistent relationships with their providers were more likely to be open with providers about drug use, sexual behaviour and other risk factors. One woman stated that she wished health care providers asked more questions about sensitive topics such as drug use, stating, "They don't really emphasise [drug use] too much…it doesn't come up much. And it should" (Marie, Age 38, Hispanic/Latina). Marie stated that routine questions from providers about risk factors and "open communication with your doctor" about these issues were essential because it could facilitate connection to drug treatment programmes and PrEP. Another woman stated that she was willing to exaggerate her drug use to convince her provider of her need for a resource like PrEP:

> "I would purposely like over-exaggerate [my behaviour] to make them more likely to prescribe it to me. Like, for example, I have worked as an escort in the past. I do every now and then, and I currently use IV drug use. But if I wasn't then, I would say that I still was…I wouldn't want them to be like, well, if you're not using drugs and if you're only having sex with your husband, then why do you want this?" (Heather, Age 30, White)

Embarrassment.: A majority of women cited shame and embarrassment discussing personal sexual behaviours or drug use with their providers, particularly if the provider was new to them or one whom they saw infrequently:

> "Just the whole conversation. I'd have to be like, I'm in risky behaviour. I'm doing this and that. I need this. It would be good but it's terribly uncomfortable. Complete embarrassment really." (Leigh Ann, Age 52, White)

> "…That would be a major [barrier to starting PrEP] for me—if it would embarrass me. That's always been a major downfall. Me being embarrassed of something and not doing it. But not embarrassing towards my family or my friends, embarrassment between me and the doctor." (Sheila, Age 43, White)

> "I know myself when I was getting high. I'm not going to come to a doctor's office and be like, oh, I'm about doing this, that, and a third. It's just embarrassing. People aren't going to talk about it." (Skylar, Age 26, White)

Judgement.: Although few women had spoken with health care providers about PrEP at the time of interview, many anticipated judgement from providers when asked about initiating a conversation in the future regarding PrEP and associated eligibility. This was informed by past experiences of judgement by providers and the belief that their provider would think less of them and/or not be able to personally relate to their situation:

> "To relate to someone, that takes a lot… That's one of the biggest ways that you could get people to take this kind of medication, is if you have someone that can relate to them… and like me from being on methadone and things like that, being around a lot of girls that have been doing tricks their entire life, that when they come into places like clinics and things like that, they don't want to talk to people because they don't understand. It's like … a pre-judging like thing, too." (Skylar, Age 26, White)

> "People that are married find it so easy to cheat and I never in a million years would believe it but it's the truth. And it's embarrassing to go into a doctor's office and they know you're married and 90 to 1 doctors are married and you look at them they're happy married. It's just embarrassing." (Monesha, Age 51, Black)

> "…. yeah not having protected sex, you know. They don't wanna have people judging them, you know, putting them down. Nobody's gonna admit that you're being loose and sleeping with everybody. You know what I mean 'cause then people are gonna think that you're a whore." (Crystal, Age 44, White)

> "Somebody who just didn't—I guess just didn't act all like react-y or judge-y. A lot of them have this lofty, like yeah, we're not even human." (Heather, Age 30, White)

Regarding discussion of PrEP specifically, a few women mentioned how stigma surrounding PrEP, due to its association with HIV, made it more difficult to initiate conversation with their provider on this specific topic:

> "Going to the regular doctor is one thing but going to a doctor to ask for PrEP seems to be different… Stigma attached to it. I always feel more comfortable when there's someone with me." (Melanie, Age 50, White)

Support from providers—Despite expressing concern over disclosing risk factors to providers, women emphasised the important influence that support and tailored guidance from their provider had on their health decisions. If their provider recommended PrEP specifically for them, they would be more likely to take it because their provider was familiar with their particular needs:

> "Having my doctor telling me, giving me good advice. You know, getting some more reassurance from him saying, 'You're going to be all right. I think it's great that you want to…' You know, getting somebody to say it's going to improve you." (Deborah, Age 53, Black)

> "My doctor feels I'm doing fine. He knows what's going on. So, if my doctor doesn't recommend it, I'm going by my doctors, versus if my doctor said, 'Listen, I need you to take this medicine'… I'm taking it regardless of what the side effects is." (Cherise, Age 32, Black)

This theme linked to the other themes of information, relationship and honesty with providers. Women stated that they would feel overall more comfortable taking PrEP if their provider (with whom they had a trusting relationship and honest communication) offered reassurance, answered their questions and followed up about their decision to take PrEP.

Discussion

This study explored communication about PrEP between urban, PrEP-eligible, cisgender women and their health care providers from the women's perspective. Findings identify factors that may impede or facilitate effective patient-provider communication and lead to missed or prime opportunities to educate and empower women to protect themselves against HIV. The findings support current literature while signalling nuances about the availability of PrEP information from providers, support from providers, and judgement by providers, that have not been previously cited in the literature. We depict relationships between these aspects of patient-provider communication in Figure 1.

Our findings are consistent with previous literature that most women had not heard about PrEP from their healthcare providers; however, most viewed their provider as a preferred source of PrEP information and the best person to deliver PrEP to women (Auerbach et al. 2015). Also consistent with the literature, women viewed PrEP as an important HIV prevention option but would be more likely to consider PrEP uptake if PrEP was discussed and prescribed by trusted health care providers at trusted venues for routine health services,

such as sexual health clinics and primary care facilities (Auerbach et al. 2015; Sales et al. 2019). Most women preferred PrEP to be offered in conjunction with other general health services or integrated into drug treatment programmes rather than having to seek out a specialist to prescribe it, a finding also emphasised by Qin et al. (2020).

As noted elsewhere in the literature (Turner et al. 2018), women in this study remarked that providers who are not familiar with treating HIV or infectious diseases were not as knowledgeable about PrEP and were either generally unaware of the medication as a method of HIV prevention or simply not suggesting it to them. Women also expressed dislike towards providers who delegated education about PrEP to other individuals, such as pharmacists. Women discussed how this type of interaction could lead to lack of privacy, especially because pharmacies are often crowded areas where personal information can often be overheard. This is particularly important considering the role pharmacists play in PrEP delivery and recent legislative efforts in the USA to allow initial PrEP dispensing from pharmacies without a prescription (Zraick and Garcia 2019; Farmer et al. 2019).

Most women in this study trusted their providers and placed high value on their advice regarding their health. Several women stated that having their providers strongly recommend PrEP for them would encourage them to initiate PrEP; they would look to their provider for reassurance that PrEP would be uniquely beneficial for their current health needs. Women indicated that lack of continuity in providers, even among women with access to health insurance and follow-up at the same clinic, made it difficult for them to build trusting relationships. Honesty about sexual health history and drug use was often described as transactional in the healthcare setting; women were more willing to discuss risk behaviours if they knew this openness would lead to resources and help, like drug treatment or PrEP. Although a positive relationship with their providers did not appear to guarantee women would be forthcoming about risk behaviours, a patient-provider relationship characterised by consistency and respect did strongly undergird their willingness to disclose and discuss risk behaviours with their provider.

Women in this study confirmed that social stigma surrounding HIV risk behaviours, PrEP, and HIV itself further hindered their openness with their provider (Chittamuru et al. 2020; Darlington and Hutson 2017; Golub 2018). Past experiences of judgement and the desire to avoid associated embarrassment and shame discouraged women from having candid discussions with their provider. Awareness of the stigma attached to risk behaviours, PrEP, and HIV can help healthcare providers more conscientiously and skilfully introduce respectful discussions of risk and HIV prevention measures with women. Despite the stigma and associated feelings of judgment/embarrassment, one participant verbalised that women desired providers to more intentionally initiate discussions about PrEP-relevant risk behaviours rather than leaving the burden of initiating this discussion on the woman. This may, in part, explain why providers who more often initiate discussions of PrEP with their patients are more likely to also prescribe PrEP to women (Adams et al. 2018).

Limitations

This study is not without its limitations. We did not account for different specialties of the providers mentioned in the interviews. Interactions would likely vary depending if the

provider was an infectious disease specialist, primary care, women's health, or various other specialties provider. Also, findings from our study may not be generalisable to other geographical locations due to it taking place in two urban settings in the Northeastern USA. Moreover, these two cities have a higher prevalence of HIV among women than many other locations across the USA. Despite our inclusion criteria specifying eligible participants were ages 18 to 54 years-old, the average age of participants was about 38 years old. Our findings may be limited in their representativeness especially among younger women who may experience different interactions with providers.

Conclusion

PrEP is the first highly effective HIV prevention method available to women in the USA that can be controlled by women themselves. Unfortunately, multiple barriers prevent women from initiating and adhering to this medication. Health care providers have a unique opportunity to mitigate these barriers through clear communication about ways to decrease HIV risk, including a strong recommendation for PrEP use when indicated. However, providers often lack specific knowledge about PrEP and adequate training to have these vital yet difficult conversations. Developing tools to address barriers to patient-provider communication about PrEP with women is necessary to assist health care providers in more effectively caring for their PrEP-eligible patients and reducing HIV disparities among women. Our research on the importance of these conversations and previous research on the lack of education among providers emphasises the need for systemically endorsed health provider training about how best to communicate with women about PrEP.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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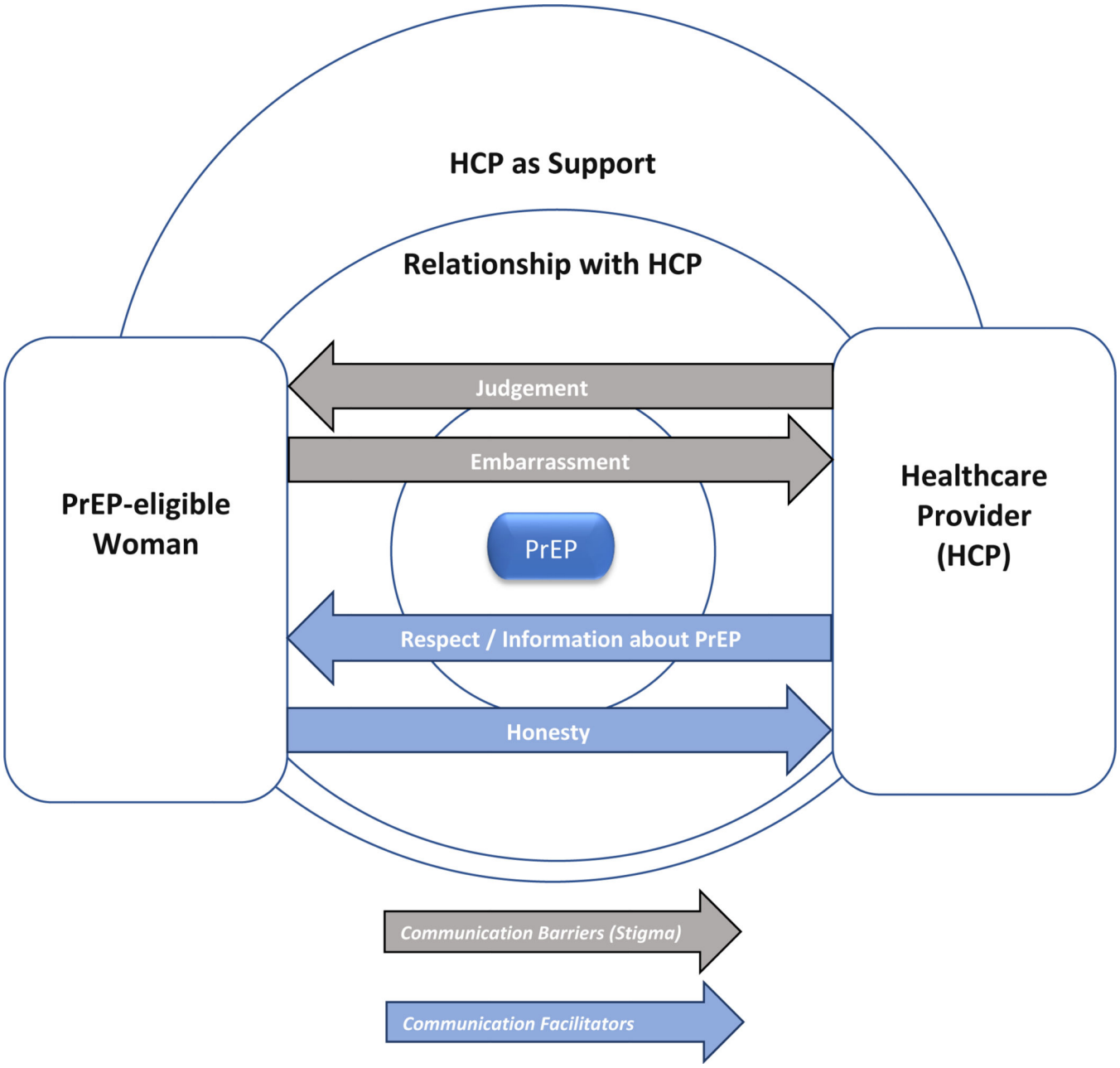

Figure 1.
Concept Map

Table 1.

Demographic characteristics of women (N = 41)

Characteristic	***Mean***	***SD***
Age (years) (18–54)	**38.6**	**10.5**
	n	***%***
Race		
Black	22	53.6
White	12	29.3
Other	7	17.1
Hispanic/Latina	12	29.3
Education		
<12th grade	11	26.8
12th grade- no diploma	4	9.8
High school - diploma or GED	13	31.7
Some college, technical training, or higher education	13	31.7
Employment status		
Full-time/Part-time/Working off-book	6	14.6
Not working/Temporarily laid off	27	65.8
Student	2	4.9
Other	6	14.6
Place receiving medical care		
Community/Free clinic	9	22.0
Medical doctor's office	27	65.9
Emergency room	5	12.2
Has health insurance (n = 40)	37	90.2
Using a method of birth control	7	17.1
Ever used emergency contraception	14	34.1
Ever had an STI (n = 40)	22	53.7
Sexual partners in past 6 months (n = 38)		
0	4	10.5
1	15	39.5
≥2	19	50.0
Has primary male partner (n = 40)	27	67.5
Used condom with last vaginal sex (n = 39)	11	28.2
Used condom with last anal sex (n = 38)		
Yes	7	18.4
No	17	44.7
Never had anal sex	14	36.8
Used drugs/alcohol to get high/drunk before sex in last 6 months		
Never	12	29.3
Sometimes	12	29.3

Characteristic	***Mean***	***SD***
Age (years) (18–54)	**38.6**	**10.5**
	n	***%***
Often	9	22.0
Almost every time / Every time	8	19.5
Injected drugs in past 6 months (n = 36)	7	19.4
Been in drug treatment program (suboxone, buprenorphine, methadone) in past 6 months (n = 36)	18	50.0