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Healthcare providers and community perspectives on expedited partner therapy (EPT) for use with gay, bisexual, and other men who have sex with men

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Abstract

Objectives: Expedited partner therapy (EPT) is an effective strategy to reduce rates of chlamydia and gonorrhea infection and ensure sexual partners are treated. Currently EPT is provided to heterosexual patients; however, EPT is not routinely recommended for use with gay, bisexual, and other men who have sex with men (GBMSM) because of concerns about HIV co-infection. The objective of the qualitative study was to understand provider and community views on the use of EPT with GBMSM.

Methods: Using convenience sampling methods, we recruited a sample of 18 healthcare providers and 21 GBMSM to participate in in-depth, semi-structured interviews. Interviews were conducted over the phone and included questions about knowledge, experiences, and potential barriers and facilitators to the use of EPT with GBMSM.

Results: Most providers wanted to provide EPT to GBMSM and believed that the potential barriers and concerns to EPT use were not unique to a patient's sexual orientation. Several providers noted that they were currently providing EPT to GBMSM as part of HIV prevention services. Community members were generally unaware of EPT as a service and most indicated that they would only use EPT if they were in a committed relationship. Barriers included partner allergies and resistance, pharmacy protocols, structural concerns (e.g., insurance coverage, pharmacists onsite, transportation), and potential disclosure issues. Facilitators included cultural humility and telemedicine with patients' partners' to overcome these barriers.

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CONTRIBUTIONS: K.E. Gamarel conceptualized the project, led all analyses and wrote the first draft of the manuscript. R. Mouzoon and A. Rivas conducted interviews, coded all transcripts and assisted with analyses and interpretation of study findings. R. Stephenson and O. Mmeje reviewed manuscript drafts and provided feedback. All authors contributed to and have approved the final manuscript.

Conclusions: Acceptability of EPT use for both chlamydia and gonorrhea was high among providers and community members. Barriers to EPT use, including concerns about patients' partners allergies and resistance, disclosure concerns, and linkage to HIV prevention services can be overcome through cultural humility trainings and telemedicine. Changing EPT recommendations at the national level to be inclusive of GBMSM is critical to curtail the rising STI and HIV epidemic.

INTRODUCTION

Expedited Partner Therapy (EPT) is a promising sexually transmitted infection (STI) intervention for heterosexual populations.¹⁻³ EPT is designed to decrease new and/or recurrent chlamydia and/or gonorrhea infection by ensuring that sexual partner(s) are treated.¹ Compared to partner notification services, EPT is the provision of medications or prescriptions to the index partner of their sexual partner(s) by a provider. Currently, the Centers for Disease Control and Prevention (CDC) has recommended the provision of EPT as a method of STI treatment when the provider cannot be assured that the recent sexual partner(s), or those in the 60 days prior to the diagnosis, will readily seek or have access to care.¹ In the United States, including Michigan, healthcare clinics routinely provide EPT to heterosexual populations with high levels of success in reducing repeat STI infections and lowering community prevalence.^{3,4}

Gay, bisexual, and other men who have sex with men (GBMSM) are disproportionately affected by HIV and other STIs.^{5,6} Despite high rates of STIs,^{5,6} EPT is not recommended by the CDC nor routinely being implemented in health clinics for GBMSM. This is due to many states needing to follow the CDC guidelines that do not explicitly permit use in GBMSM because of the high risk for coexisting HIV infection in their partners.¹ However, the CDC explicates that there is a need for research to understand the barriers and facilitators to EPT use in GBMSM populations.¹ To our knowledge, only one study has examined EPT use with GBMSM in Peru.⁷ To our knowledge there are no studies examining provider and community perspectives regarding EPT use with GBMSM in the United States. As such, the purpose of this study was to (1) understand provider and community members' views and opinions regarding EPT use with GBMSM; and (2) identify strategies to overcome potential barriers to EPT use with GBMSM.

METHODS

The Strategies for Expedited Partner Therapy (STEPS) Project was a qualitative study designed to conduct formative research on opinions, barriers, and potential strategies for EPT use with GBMSM. Between May and October 2018, providers and community members completed an in-depth interview and brief survey. Convenience sampling methods were used, such as flyers in community venues and clinic-based recruitment at healthcare settings in Michigan. Prospective participants called or emailed to learn more about the study and were screened over the phone for eligibility. Those who were eligible and interested were scheduled for a phone interview. Providers were eligible to participate if they were at least 18 years of age; identified as currently being employed to treat STIs and HIV with GBMSM patients and/or were currently prescribing EPT in their practice. Community

members were eligible to participate if they were at least 18 years of age; had a male sex assigned at birth, regardless of their gender identity; and had been tested for any STI in their lifetime. Phone interviews and brief surveys were conducted with 18 providers and 21 community members. Interviews lasted approximately 45 minutes.

During the interview, the first or second author consented participants into the study. All interviews were digitally recorded and transcribed verbatim. The interview guide covered knowledge and experience with EPT and potential barriers and facilitators to using EPT with GBMSM. Participants were then sent a survey to gather demographic data. Participants were compensated with a \$40 gift card. Procedures were approved by the Institutional Review Board (IRB) at the University of Michigan (approval number HUM00141041).

Data Analysis

We used template analysis for coding all interview transcripts.⁸ Codes were discussed and developed by the first three authors using the interview guide domains. Each overarching theme then had sub-themes that came emerged from our analyses, discussions, and synthesis of the transcripts by the study team. The second and third author applied the finalized codes to all transcripts using NVivo software (version 12). Table 2 presents the key themes.

RESULTS

As shown in Table 1, providers ranged in age from 33 to 63 ($M = 47.4$, $SD = 10.0$). Providers included medical doctors (33%), nurse practitioners (33%), registered nurses (29%) and a pharmacist (5%). Two-thirds of the providers were cisgender women (67%), the majority identified as non-Hispanic white (72%), and a little less than half identified as a sexual minority.

Community members were all cisgender men (assigned male sex at birth and currently identified with a male gender) who ranged in age from 18 to 40 ($M = 27.2$, $SD = 6.6$). Approximately half of the men identified as non-Hispanic white, identified as gay, and reported an HIV-negative status.

Knowledge and experience with EPT

Overall, the majority of providers interviewed were knowledgeable about EPT. Of those providers, many ($n = 13$) were currently prescribing EPT in their practice, including three who provided EPT to their GBMSM patients.

Several providers were aware of the restrictive protocols for EPT use with GBMSM patients. One provider relayed a story of an uncomfortable encounter where she had to turn away a patient because of his sexual orientation.

We had to tell him that it was not within our protocol to treat his partners. And it made him feel really bad. He says, why are you singling us out? And, of course, we have no input, nothing to do with the decision-making processes. I follow the protocols by the letter for how they're written and he doesn't fall within my

protocol. And that's kind of how I had to explain it. But it was an uncomfortable conversation to have.

(Registered Nurse, White Bisexual Woman, Age 57)

In contrast, community members were almost universally not aware of EPT prior to the study with one exception. This community member related a story of being refused EPT by his provider. The other partners in the relationship were provided EPT but he was refused because the provider was uncomfortable giving him EPT.

Well, when she said that she has another partner, the first thing that the doctor said was, uh, does your husband know? Uh, yeah, they're both in the lobby right now, can I get one for him too? And he said, well we're really not comfortable doing that, you'll need to have him come in and see us

(Community Member, White Bisexual Man, Age 30).

Some providers noted frustrations with restrictive protocols, which prohibited EPT use with GBMSM. One provider recognized the importance of ensuring that GBMSM receive HIV testing; however, she also noted that the CDC's expressed mission to increase HIV testing and treatment by excluding a key population for the provision of effective STI services was not helpful in reaching this goal.

I get frustrated, I mean I get it. Like what you just said. The CDC's worried about missing HIV cases and I get that and we all want to diagnose as many cases as we can and to spread the word but I don't know that it's really that helpful to limit these services under the guise of, well we don't wanna miss anything else.

(Medical Doctor, White Gay Man, Age 48)

Concerns of EPT use with GBMSM

Acceptability of EPT for both gonorrhea and chlamydia with GBMSM was generally high among providers and community members. The majority of providers did not perceive concerns regarding EPT to be unique to GBMSM. However, two providers expressed concerns about the provision of EPT with GBMSM because of their beliefs that this group had a high number of sexual partners and the number of prescriptions would be high.

One of the challenges is my MSM population, the amount of partners that they have is quite extensive. So how am I going to treat all those people, I don't have the confidence I guess to, that this index patient is going to get around to all of those people to distribute the information and the prescriptions.

(Registered Nurse, White Bisexual Woman, Age 57)

Many community members said that they would be willing to use EPT only in committed relationships but not for one-night stands. For casual partners, many of the men felt more comfortable using partner notification services.

Barriers to EPT use in general

Providers had concerns with EPT in general; however, these barriers existed regardless of their patient's sexual orientation. Providers noted that EPT was not the best practice for

treating gonorrhea. However, concerns about source of gonorrhea infection did not differ in their treatment protocols and should not be based on a patient's sexual orientation.

So in the case where my client has oral or rectal gonorrhea, my assumption is that they've received that from the genital area of their partner, right? Because that's the way it's passed most easily. So my assumption is that the person I'm giving to EPT to has genitourinary system gonorrhea and therefore I feel more comfortable sending home the oral pills, the cefixime and azithromycin because the likelihood is that's in the genitourinary system and that's the site that's going to be most easily treated with that regimen

(Medical Doctor, White Queer Woman, Age 34)

Several providers noted that a real barrier to EPT in general was not having any contact with the partner to be able to assess for allergies and ensuring that they do not develop resistance to the medication.

Just not knowing the partner's allergy history, there's a very large proportion of the population that has penicillin allergies. And so not feeling totally comfortable giving antibiotics to individuals who we don't know is also a little bit concerning.

(Nurse Practitioner, Black Straight Woman, Age 33)

Two providers described how confidentiality was a barrier to providing EPT. One provider who was currently prescribing EPT described a patient's disclosure concerns. This patient's partner was sitting next to her when she received the phone call and she was concerned about having a difficult conversation with her partner.

I'm recalling a conversation I had with a young lady who -was receiving her call about her positive chlamydia with her male partner right next to her. Like she's on the phone, he's standing right there from the way she described things and she says to me, so how did I get this? And so I explain to her how she got it and all of a sudden her entire tone changed cuz it occurred to her that her partner had to have been with somebody else. And so it meant that they were gonna have to have a conversation and her entire mood changed

[Registered Nurse, Multiracial Straight Man, Age 39).

The most commonly cited barriers to EPT were structural barriers. Structural barriers included not having onsite pharmacists or pharmacists being educated on EPT, insurance coverage, and transportation/scheduling issues.

One provider noted how pharmacists may not be educated about EPT and could potentially give "push back" to the patient if the clinic did not have an onsite pharmacy or the pharmacist did not have proper training.

The only barrier that I could see but not directly related to my clinic is that if someone takes it to a pharmacy and the pharmacy isn't up on it, you know, then patients probably having some push back with that

(Nurse Practitioner, Black Straight Woman, Age 33)

Three providers directly mentioned insurance concerns. One provider questioned who would cover EPT and whether it would fall on the provider to assist them in applying for insurance programs.

The number one barrier is always insurance. So that, that's always a barrier for any, any medication is, once a prescription is given, can they pick it up? Do we have to —do we have to assist them in applying for X program, Medicaid, so those are always I would say are the biggest challenge

(Registered Nurse, White Queer Woman, Age 41)

Both providers and community members noted that transportation and scheduling was a barrier to STI, as well as HIV testing and treatment.

In some areas transportation is a big issue. So having the ability to alleviate that number one barrier could definitely be good.

[Community member, White Gay Man, Age 20].

Facilitators to EPT

Providers and community members offered several strategies that would be helpful to overcome barriers to the delivery of EPT in general, as well as to the CDC's specific concerns about EPT with GBMSM. Recommendations included ensuring that EPT was offered with pre-exposure prophylaxis (PrEP). Specifically, one provider described how when she offered PrEP to her patients who were diagnosed with an STI that she also provided them with the option of EPT for their sexual partners.

I work at a clinic that is 90% gay or bisexual men and so we always offer PrEP if that were to happen - if they're not already on PrEP. The last thing I'll say after they kinda preface all of that is to say, you know, we have medication that we can give to you to give to your partner and I'll just learn a little bit more about whether or not they're gonna see their partner again.

[Registered Nurse, White Queer Woman, Age 41]

Providers and community members highlighted the importance of cultural humility when working with GBMSM. "Trusting relationships" was important for many of the participants. Providers who worked with GBMSM patients explained how even subtle identity affirming strategies could help facilitate retention in STI services.

Most commonly mobile technologies were described as viable options to overcome barriers. A phone call or text message was described as a way that they overcame their concerns about the partner having allergies and developing resistance.

But saying, hey I want to touch base with your partner, make sure they know how to take this medicine, make sure I verify they don't have any allergies to the medicine I'm about to send home. And usually people are pretty open to it. If not letting me actually speak to them, they're pretty open to having a text conversation with me in the room with that person

[Medical Doctor, White Queer Woman, Age 34]

Several providers suggested the use of telemedicine with partners to help address potential structural barriers and ensure linkage with HIV and other STI services. Community members echoed these sentiments around mobile technologies to facilitate EPT use. One community member described how scheduling appointments can be difficult and suggested self-testing kits with a series of videos or chats with a provider.

Something as simple as, you know, once you receive an at-home kit just including a link to even a video series and a chat. So it doesn't have to be a full-fledged doctor's appointment in my book. That would've been nice.

[Community Member, White Gay Man, Age 21]

DISCUSSION

To our knowledge, this is the first study to examine provider and community perspectives of EPT use with GBMSM in the United States.⁵ In this qualitative study, we found that the majority of providers and community members felt EPT would be beneficial for GBMSM and could serve as a strategy to engage sexual partner(s) into HIV and other STI services. All of the providers that we interviewed were aware of EPT. Some were currently prescribing EPT for gonorrhea to their GBMSM patients despite Michigan legislation that follows the current CDC's guidelines that restrict EPT with GBMSM. In contrast, few community members knew of EPT with the exception of one man who had been denied this service. Many providers described potential barriers to EPT use; however, concerns were not unique to GBMSM. Providers and community members described strategies to overcome concerns about the potential for ensuring engagement and linkage to HIV and other STI services of sexual partner(s).

Concerns regarding the provision of EPT to GBMSM have been grounded in the notion that there may be a high prevalence of undiagnosed HIV, syphilis, and drug-resistant gonorrhea within the sexual networks of GBMSM.¹ Providers did express concerns about drug-resistant gonorrhea and potential allergies; however, these apprehensions also existed for their heterosexual patients. Providers and community members described the utility of telemedicine as a means to overcome these concerns. Providers described how speaking over the phone or texts with partner(s) alleviated anxieties regarding allergies and resistance of partner(s). Given the increasing interest in and utility of telemedicine⁹ and emerging use of self-testing approaches to HIV and other STIs,¹⁰ community members discussed how self-testing along with mobile platforms, such as a website with a chat-feature to a provider, would be helpful to ensure that both the patient and partner(s) understood the diagnosis and treatment. Thus, the provision of HIV self-testing could be offered to partners with an EPT prescription or treatment to offset the concerns about co-infection.¹¹

Providers who work with GBMSM patients described the importance of identity affirming healthcare settings (e.g., images on the wall, magazines) and cultural humility as a means of ensuring linkage and retention in HIV and other STI services. Cultural humility has been described as a process "in which individuals continually engage in self-reflection and self-critique" (pg. 118).¹² Training programs for physicians and nurses on EPT with GBMSM

patients must include cultural humility education to help ensure timely linkage and engagement in care for index patients and their partner(s).

This research has several limitations. First, findings may not be generalizable to providers and community members in other regions. Providers who self-selected for this study may have more favorable views of EPT with GBMSM than those who did not respond to our recruitment attempts. This study used self-report interviews, which is subject to social desirability bias. However, precautions were taken to ensure confidentiality and interviewers were trained to maintain a neutral stance. We made efforts to recruit a diverse sample of community members; however, given the small sample size we were unable to examine racial or age differences in EPT acceptability and barriers. Future research with a larger sample of GBMSM is warranted to assess the acceptability and preferences for EPT.

This study demonstrates the potential acceptability of EPT with GBMSM among both providers and community members in the United States. Although there are logistical and structural barriers to EPT,^{13–15} these concerns are not unique to GBMSM. Our study illustrated that providers and community members perceived EPT could be a viable strategy for GBMSM. Notably, one of the community members who was in a relationship with a man and a woman was denied EPT because he was classified as “MSM” in his health care setting. This man’s experience highlights the need to reconsider terminology and its utility when developing and implementing EPT guidelines. For example, there is no specific guidance on GBMSM who are partnered with cisgender women or gender minority people. A recent modeling study illustrated that EPT could substantially reduce STI incidence among GBMSM.¹⁶ Therefore, demonstration-implementation projects are needed to determine whether EPT has the potential to serve as a mechanism to link and engage sexual partner(s) into HIV and other STI services.

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Key Points:

- Expedited partner therapy is a promising strategy for reducing sexually transmitted infections.
- There was high level of acceptability for EPT use with gay, bisexual, and other men who have sex with men.
- Findings illustrate the importance of continued research to include gay, bisexual, and other men who have sex with men in the provision of EPT.

Table 1.

Demographic Characteristics of Study Participants

	Community Members (N = 21)	Provider (N = 18)
<i>Age, M (SD)</i>	27.2 (6.6)	47.4 (10.0)
<i>Race, N (%)</i>		
White	14 (67)	13 (72)
Black	5 (24)	4 (22)
Asian	1 (5)	0
Multiracial	1 (5)	1 (6)
<i>Latinx</i>	5 (24)	0
<i>Assigned Sex at Birth</i>		
Male	21 (100)	6 (33)
Female	0	12 (67)
<i>Gender Identity</i>		
Man	21 (100)	6 (33)
Woman	0	12 (67)
<i>Sexual Identity</i>		
Gay or Lesbian	17 (81)	4 (22)
Bisexual	2 (9)	2 (11)
Straight	0	10 (56)
Queer	1 (5)	2 (11)
Pansexual	1 (5)	0
<i>HIV-status</i>		
HIV-negative	15 (71)	--
HIV-positive	4 (19)	--
Unknown	2 (10)	--
<i>Profession</i>		
Medical Doctor	--	6 (33)
Nurse Practitioner	--	6 (33)
Registered Nurse	--	5 (29)
Pharmacist	--	1 (5)

Table 2.**Barriers and facilitators to EPT use with GBMSM**

Barriers

High number of sexual partners of GBMSM and potential prescriptions
Treatment for gonorrhea for partners
Allergies to treatment of partners
Resistance to medications of partners
Disclosure and confidentiality for index patient
Lack of pharmacist education
Insurance coverage
Transportation and scheduling

Facilitators

Provision of PrEP with EPT prescription or treatment
Cultural humility training for working with GBMSM
Mobile technologies, such as telemedicine
HIV self-testing with EPT prescriptions or treatment