Sexuality & Culture
https://doi.org/10.1007/s12119-026-10602-w

ORIGINAL ARTICLE

"They Should Lay It All on the Table": Oral PrEP Perceptions Among Men Who Have Sex with Men in Portugal

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Received: 3 February 2026 / Accepted: 4 June 2026
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Abstract

Portugal is among the Western European countries with the highest rates of new HIV diagnoses. Despite pre-exposure prophylaxis (PrEP) efficacy in reducing HIV transmission, adherence rates remain below UNAIDS targets, even among key populations. A qualitative study was conducted with 17 semi-structured interviews with men who have sex with men (MSM) living in Portugal, both PrEP users and non-users. Data were analyzed using content analysis combined with elements of consensual qualitative research, informed by the PrEP care continuum as an organizing framework. Findings showed that interconnected structural, psychosocial, and individual factors across the care continuum shape PrEP engagement. Specifically, community-based services and peer networks are central in facilitating awareness and uptake, although their limited availability outside urban areas creates barriers for individuals living in rural areas. Stigma related to PrEP use emerged as a cross-cutting barrier, particularly among individuals with intersecting marginalized identities, and was associated with concerns about sexual identity and disclosure. Perceived HIV risk influences engagement with PrEP, with higher perceived risk facilitating awareness, uptake, and adherence, whereas lower perceived risk was associated with reduced interest and PrEP discontinuation. The study contributes to understanding PrEP implementation among MSM in Portugal and supports ongoing efforts to integrate PrEP into primary healthcare following models already established for other prophylactic interventions.

Keywords Pre-exposure prophylaxis · MSM · Sexual health · Facilitators · Barriers · Qualitative

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Published online: 23 June 2026

Introduction

In recent years, pre-exposure prophylaxis (PrEP**)** has contributed to a shift in HIV prevention paradigms, not focusing solely on risk reduction and disease prevention, but also enabling greater attention to psychosexual health and well-being (Modrakovic et al., 2025). PrEP effectively reduces the risk of acquiring HIV (Molina et al., 2013; Murchu et al., 2021), achieving up to 99% efficacy when taken as prescribed (Anderson et al., 2012; Donnell et al., 2014; Spinner et al., 2015). Beyond its preventive effects, PrEP can positively impact users' lives by decreasing HIV-related anxiety and enhancing sexual pleasure (Bavinton et al., 2021; Van Dijk et al., 2022). However, its use is often discussed in terms of risk compensation. From this perspective, preventive interventions may foster a heightened sense of safety, which has been associated with changes in protective behaviors, including those related to sexually transmitted infections (STIs; Cao et al., 2020; Grov et al., 2021). This discussion is particularly relevant considering the global burden of bacterial STIs, such as chlamydia and syphilis (Hughes & Sawleshwarkar, 2023; Rosset et al., 2025). The risk compensation argument is not unique to PrEP. Similar concerns have also been raised about other biomedical interventions, including oral contraceptives or the human papillomavirus vaccination (Hansen, 2016; Myers & Sepkowitz, 2013). However, some research suggests that declines in consistent condom use predate the widespread adoption of PrEP, indicating that risk compensation cannot be attributed solely to its use (Shen et al., 2022; Stewart et al., 2021).

HIV prevention is a plural field in which individuals make informed choices among different available strategies (e.g., condoms, PrEP, combined approaches), depending on their needs, risk perceptions, or contexts. Therefore, awareness of the full spectrum of biobehavioral prevention options is important for enabling informed decision-making (Rojas-Castro et al., 2019). Nevertheless, by 2020, the number of individuals on PrEP was estimated at less than 1 million worldwide, even though the UNAIDS target for that year was set at 3 million (Bavinton et al.,, 2021). Hence, there is a gap between individuals who meet the eligibility criteria for PrEP and those who choose to use it (Meireles et al., 2020).

Research has identified several barriers that may help explain the lower number of PrEP users, including the cost of PrEP, limited access to healthcare services and providers, concerns about side effects, and stigma associated with PrEP use (Jin et al., 2023). Understanding these barriers is essential to identifying the factors underlying this gap. To examine these factors, we draw on the PrEP care continuum. Introduced by Nunn et al. (2017), this continuum extends the logic of the HIV care continuum (Gardner et al., 2011) to the domain of prevention. The two models differ fundamentally in their populations, objectives, and stages. The HIV care continuum focuses on engaging individuals living with HIV to achieve and sustain viral suppression. In contrast, the PrEP care continuum focuses on HIV-negative individuals at risk of infection by emphasizing awareness, access, adherence, and dynamic engagement in HIV prevention, and reflecting changes in individuals' HIV risk and the need for ongoing prevention-effective adherence. These conceptual differences underscore the need to adapt frameworks initially designed for HIV treatment and secondary prevention to the context of primary prevention among HIV-negative individuals. This

continuum includes three stages: 1) awareness, 2) uptake, and 3) adherence and retention. Each presents opportunities for individuals to use PrEP or disengage from using it. Awareness refers to individuals' knowledge of PrEP as an HIV prevention option and their appraisal of personal HIV risk, which together shape awareness of PrEP within HIV prevention decision-making. Uptake refers to the initiation of PrEP use following access to healthcare services. Adherence and retention refer to the extent to which individuals consistently take PrEP as prescribed and maintain engagement in PrEP-related care over time. Other theoretical models have been used to explain HIV prevention behaviors, including the Theory of Planned Behavior (Ajzen, 1985, 1991) and the Information–Motivation–Behavioral Skills model (Fisher & Fisher, 1992). These models primarily focus on individual-level determinants of behavior, such as attitudes, motivations, and behavioral skills. Despite their value for understanding predictors of health behaviors, these models are less suited to capture how engagement with PrEP unfolds across stages of care. Accordingly, our study adopted the PrEP care continuum as an organizing framework. Rather than serving as a causal model of behavior, the continuum provides a descriptive structure that allows the analysis to examine engagement with PrEP across sequential stages of care and to identify how facilitators and barriers operate throughout the prevention pathway. In this sense, the continuum complements individual-level behavioral models, rather than replacing them, by situating behavioral processes within broader systems of access, care delivery, and sustained engagement.

In Portugal, PrEP was approved in 2017 and, since February 2018, has been provided free of charge through HIV referral network hospitals of the Sistema Nacional de Saúde (National Health Service, NHS; Meireles et al., 2020). Currently, the country is transitioning from a model in which PrEP was exclusively available through hospitals, with all associated costs covered by the NHS (Meireles et al., 2020; Simões et al., 2021), to a more diversified system. Under the new system, PrEP can also be accessed outside hospitals, including via primary care prescriptions, community organizations, or consultations in the social or private sector, and is dispensed in community pharmacies with a 69% co-payment (Ordinance No. 402/2023). Portugal is among the Western European countries with the highest HIV diagnosis rates (ECDC, 2025). At the same time, consistent condom use is declining (Rodrigues et al., 2023), a trend also observed in other countries (e.g., Mirandola et al., 2018). In this context, expanding access to PrEP may be a complementary strategy to address some of the observed changes in sexual health behaviors.

Current Study

Although existing research has examined PrEP use patterns among MSM (e.g., Meireles et al., 2021), less attention has been given to how PrEP awareness, uptake, and adherence are negotiated in everyday contexts across both users and non-users, particularly in Portugal, where access to PrEP has recently been expanded. Examining this range of experiences can generate insights to inform evidence-based policies and interventions to improve PrEP access and use. Focusing on both PrEP users and non-users among MSM in Portugal, this study aimed to understand the lived experiences of facilitators and barriers associated with PrEP awareness, uptake, and adher-

ence. Lived experiences are understood here to encompass not only individual use or willingness to use PrEP, but also participants' interactions with and navigation of prevention systems and healthcare structures. These dimensions are directly relevant to the PrEP care continuum, which considers engagement with prevention as a multi-level process shaped by both individual experiences and structural contexts.

Method

Participants

A total of 17 MSM aged 24 to 53 years (M=31.88, SD=6.83) took part in this study. Of the total sample, eight participants were non-users (Mage=28.13, SDage=3.44) and nine were using PrEP (M_{age}=35.22, SD_{age}=7.50). This latter group reported being taken through the hospital. Most participants followed a daily regimen (n=8), with only one using an on-demand regimen. Duration of PrEP use ranged from four to 84 months (M=35.44, SD=31.15). Table 1 summarizes the sociodemographic characteristics of the sample.

Procedure and Measures

The study used a qualitative methodological approach, and data were collected between February and April 2025. The study was approved by the ethical committee of CIS-Iscte (Ref.: 24/033 of January 31, 2025). To participate, individuals had to

Table 1 Sociodemographic data of PrEP users and non-users

		PrEP users (n=9)		PrEP non-users (n=8)		Total (N=17)	
Age	Minimum	28		24		24	
	Maximum	53		34		53	
	M	35.22		28.13		31.88	
	DP	7.50		3.44		6.83	
		n	%	n	%	n	%
Gender	Cis	9	100	7	87.5	16	94.1
	Trans	0	0	1	12.5	1	5.9
Sexual Orientation	Gay	7	77.8	6	75	13	76.5
	Bisexual	2	22.2	2	25	4	23.5
Nationality	Portuguese	5	55.6	7	87.5	12	70.6
	Other nationalities	4	44.4	1	12.5	5	29.4
Education	Upper school	1	11.1	1	12.5	2	11.8
	Bachelor	3	33.3	2	25	5	29.4
	Master	4	44.4	4	50	8	47.1
	PhD	1	11.1	0	0	1	5.9
	Other	–	–	1	12.5	1	5.9
Marital status	Single	7	77.8	7	87.5	14	82.4
	Non-monogamous relationship	2	22.2	0	0	2	11.8
	Monogamous relationship	0	0	1	12.5	1	5.9

be at least 18 years old, be able to provide informed consent, self-identify as MSM, reside in Portugal, and not be living with HIV. MSM living with HIV were excluded for their use of antiretrovirals as treatment, whereas our focus was on the use of antiretrovirals as PrEP.

Prospective participants were recruited through social media posts aimed at reaching individuals from relevant communities. This recruitment strategy was consistent with a non-probability sampling approach, specifically purposive and convenience sampling, aimed at reaching individuals belonging to the target population. Interested participants contacted the research team via the email address provided in the recruitment materials. Informed consent information was sent via email before the interview, including details on the procedures for data collection and analysis. Those who agreed to participate returned the signed informed consent form in advance and were then scheduled for an online or in-person interview, depending on their preference and availability. Email addresses were used solely for recruitment and scheduling purposes and were not stored as part of the research data. All signed consent forms were stored separately from the interview data on institutional servers and computers protected by individual credentials.

The semi-structured interview script was developed based on the findings of a recent overview of reviews conducted by the team before the present study (Pinheiro et al., 2025). This synthesis highlighted the need to consider the interplay between individual characteristics, social influences, and structural determinants, which together shape PrEP awareness, willingness to use, and adherence. This ensured that the interview topics were grounded in existing evidence. The guide included open-ended questions on the following topics: advantages/disadvantages of PrEP (e.g., *What do you consider to be the disadvantages of PrEP?*); social perceptions (e.g., *How would you describe the general public's perception in Portugal regarding PrEP?*); and health system (e.g., *Considering your experience with healthcare services in Portugal, in what ways could we promote access to PrEP?*). These topics structured the interviews while allowing participants to freely elaborate on their experiences and perspectives, ensuring both comparability across interviews and flexibility to capture emergent themes. Interview duration ranged from 18 to 49 min ($M = 37.71$, $SD = 12.92$). The shorter interview was retained because its content was relevant to the study objectives, particularly regarding PrEP side effects. Non-Portuguese participants were given the option to use Portuguese or their native language (i.e., Spanish, English) during the interview. Moreover, participants could ask questions regarding PrEP and/or PEP (i.e., Post-exposure prophylaxis). After the interview, the debriefing reiterated the purpose of the study, shared the research team's contact information, and provided information on where to learn more about PrEP and to find psychological support if needed.

Data Analysis

Data was transcribed and uploaded into a qualitative software program (MAXQDA) for management and analysis. Data was subject to content analysis (Bauer, 2000) and incorporated features of consensual qualitative research (Hill, 2012). By doing so, we employed a mixed deductive–inductive analytic approach. Consistent with the

inductive orientation of consensual qualitative research, categories were first generated from the data and subsequently considered in relation to the stages of awareness, uptake, and adherence. Rather than imposing strict categorization, the PrEP care continuum provided a framework to explore how categories related to different points along the PrEP care pathway. Hence, the resulting domains and categories do not necessarily mirror the continuum, as some may overlap multiple stages (e.g., HIV-risk perception, social stigma). To enhance analytic rigor, selected features of consensual qualitative research were incorporated, including independent coding by multiple analysts, consensus-based discussions to agree on domains, categories, and core ideas, and the classification of categories according to their prevalence across cases (i.e., "general" if present in all cases, "typical" if present in at least half of the cases, and "variant" if present in fewer than half of the cases; Hill, 2012). This classification enabled the identification of the relative salience of each category across users and non-users, distinguishing more shared from more individualized experiences.

The integrated approach ensured that the analysis was both systematic and validated through team consensus, providing a comprehensive and trustworthy representation of the qualitative data.

Results

A total of three domains were identified: 1) PrEP awareness, access, and engagement with services; 2) stigma perceptions and experiences; and 3) perceived effects of PrEP use. The first domain included the following categories: 1.1) high community awareness and advocacy; 1.2) access through community-based services; 1.3) promoting PrEP awareness and knowledge; and 1.4) time-consuming and costly process. The second domain encompasses: 2.1) self-negotiating PrEP-related stigma; 2.2) social stigma; and 2.3) healthcare system stigma. The third domain comprises: 3.1) HIV-risk perception; 3.2) decreased anxiety and increased sexual pleasure; and 3.3) side effects and medical follow-up. For the prevalence of each category, see Table 2. For a more detailed explanation of the categories' meaning, see Supplementary Material.

A visual map of how the different domains and categories interrelate is presented in Fig. 1. Additionally, Fig. 2 illustrates how the analytically derived categories, grounded in participants' perspectives, were subsequently reorganized in relation to the stages of the PrEP care continuum. This integrative approach allows for a clearer visualization of how participants' experiences, perceptions, and practices map onto different points of the PrEP care continuum, highlighting both alignments and gaps across stages.

PrEP Awareness, Access, and Engagement with Services

This domain reflects participants' perceptions of PrEP awareness and knowledge within the general population and the LGBTQIA+ community. It also explores how participants value community-based services, how they perceive the process of engaging in PrEP care, and the strategies they consider important for promoting PrEP. It includes four categories: 1.1.) high community awareness and advocacy;

Table 2 Summary of categories and prevalence

Domains	Categories	General		Typical		Variant	
		Non-users	users	Non-users	Users	Non-users	users
PrEP awareness, access, and engagement with services	High community awareness and advocacy	X	X				
	Access through community-based services	X	X				
	Promoting PrEP awareness and knowledge	X	X				
	Time-consuming and costly process		X	X			
Stigma perceptions and experiences	Self-negotiating PrEP-related stigma					X	X
	Social stigma			X	X		
	Healthcare system stigma					X	X
Perceived effects of PrEP use	HIV-risk perception		X	X			
	Decreased anxiety and increased sexual pleasure		X	X			
	Side effects and medical follow-up	X		X			

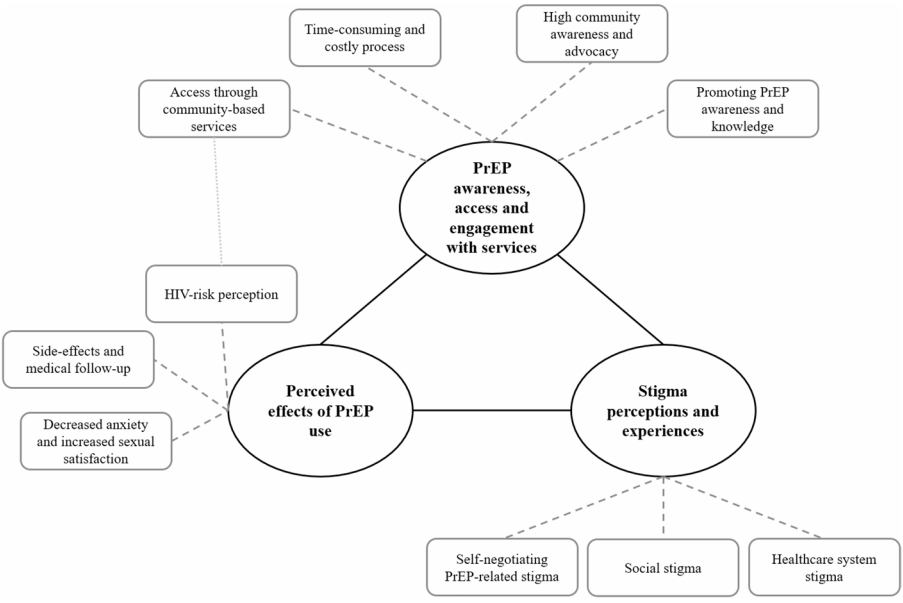


Fig. 1 Domains and categories visual map

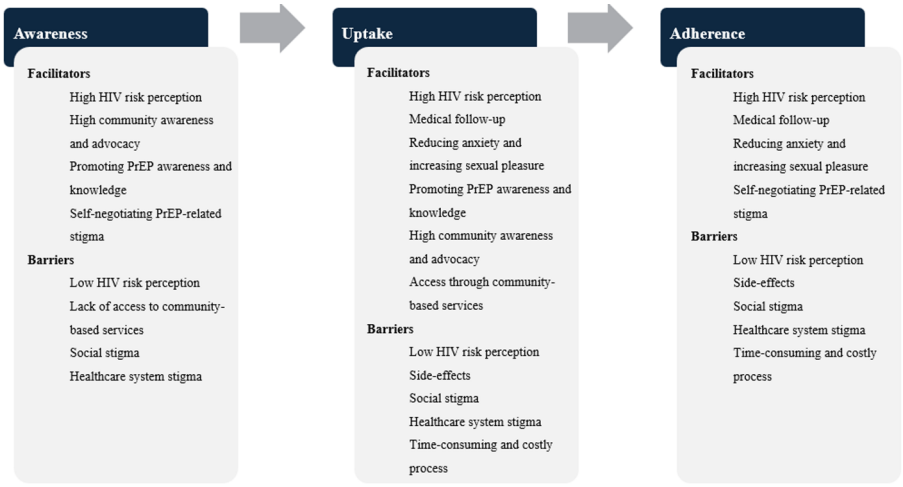


Fig. 2 Organization of categories informed by the PrEP care continuum and grounded in participants' perspectives

1.2.) access through community-based services; 1.3.) promoting PrEP awareness and knowledge; and 1.4.) time-consuming and costly process. The first three categories facilitated PrEP awareness and uptake, whereas the fourth category was a barrier to PrEP uptake and adherence.

High Community Awareness and Advocacy

Participants reported that the LGBTQIA+ community was more aware and had better knowledge of PrEP, in comparison to the general society. Both participants, users and non-users, added that it was through the LGBTQIA+community that they became aware of PrEP, either through community-based services, friends, or partners. The following accounts illustrate this: "… I was told about PrEP at the community-based service while waiting for my testing results" (Participant 8, PrEP non-user) or "Then I started going to the community-based service, and there they talked to me about it and explained in detail what it was, in a very neutral and non-judgmental way!" (Participant 17, PrEP user). Once aware of PrEP, participants stated they began assuming advocacy roles within their own social networks, especially when they perceived their networks as open and supportive.

> … [my father] said he was super happy to hear that because all his idols had died of AIDS. (…) And he said, you know, he was really glad that we [the present generation] now have this way to avoid an infection that in the past brought death, and that today is no longer a death sentence! And I was also happy, first because I got to share this with him, and second because it gave me a little warm, cozy feeling.
>
> Participant 15, PrEP user

In contrast, the lack of a supportive network was reported to be a barrier to discussing PrEP with others, including partners, and to accessing it, even when a first appointment in the NHS was already scheduled.

> I wish I had done that at the time! I wish I had stood my ground – not in the sense of rebellion, but in the sense of being firm in the decision I wanted to make… to talk about the reasons for the other person's discomfort, and not about my own decision, because it did not mean that our relationship was in danger or that I did not trust him.
>
> Participant 8, PrEP non-user

Access Through Community-Based Services

Both users and non-users identified community-based services as the main channel for accessing PrEP, with all PrEP users in our sample reporting access through these services. As accounted in the following quote: "I made the request for my first appointment through the community-based service" (Participant 14, PrEP user).

Participants reported that community-based services play a crucial role for the LGBTQIA+ community and noted that lack of access to these services was a barrier for those who may want to engage in PrEP care, whether due to geographical constraints in rural areas or limited access opportunities. This type of experience is illustrated by: "One of the reasons I think it would be easier in Lisbon isn't just because it's the capital and there are more open-minded people, but also because there are community-based services for LGBT individuals" (Participant 2, PrEP non-user).

Promoting PrEP Awareness

Participants, users, and non-users indicated that PrEP-promoting campaigns often target cis-MSM, leaving behind other groups to whom PrEP can also be an option (e.g., trans individuals, women). Participants emphasized that, unlike other health conditions, information about PrEP is not shared in healthcare settings, reinforcing their perception that only individuals already aware of PrEP can access it.

> …I don't remember ever going to a healthcare center or hospital where there was information about PrEP, like there is about cancer, flu, or COVID, for example. I think opening this world to individuals in terms of information would help reduce that lack of knowledge.
>
> Participant 15, PrEP user

> …when you go to a nursing appointment, maybe to get vaccines or something, they always give you a lot of information about what you have, what you don't have, and what you could potentially get. Not necessarily an STIs, but they talk

> about all kinds of things that could happen – and I don't really see them talking about PrEP.
>
> Participant 1, PrEP non-user

In fact, users reported instances in which they had to explain PrEP to healthcare providers during primary care visits.

> Once, I went to a routine check-up, and as part of the usual questions, the doctor asked what medications I was taking or what I used daily, something like that… so I mentioned PrEP, and the doctor didn't know what it was. I was really, really shocked! How can a doctor not know what PrEP is?
>
> Participant 12, PrEP user

Participants described the importance of promoting PrEP across diverse populations and settings, including schools (e.g., integration into school-based sexuality education), healthcare services (e.g., discussion during routine primary care appointments), and national visibility campaigns. Regarding the inclusion of PrEP in sexuality education, one participant noted: "…now that I'm an adult, I think it's one of those things that should be included in sex education classes, for example…" (Participant 3, PrEP non-user).

Participants also argued that PrEP should be addressed more routinely, in ways comparable to other health topics and prevention methods. As one participant stated: "PrEP should be something that is mentioned and explained, brought to the table just like other topics, questions, and prevention methods." (Participant 10, PrEP user).

Time-Consuming and Costly Process

Users and non-users differed in their perceptions of the process of accessing PrEP care and remaining engaged in it. Non-users often described PrEP as a time-consuming prophylactic method, particularly compared to condom use.

> I think there's more resistance when it comes to starting PrEP compared to having sex with a condom. It's not that easy to get started! (…) Especially because it's not just the time spent in appointments, it's also for the medical exams, the back-and-forth hospital trips – especially since the hospital isn't very close to me – it's all of that.
>
> Participant 2, PrEP non-user

In contrast, users tended to emphasize the benefits of the process despite the procedural challenges involved, as illustrated by the quote: "The main difficulty is the waiting time [for the first appointment]. After that, I think everything is very simple." (Participant 15, PrEP user). For these participants, challenges were mainly related to monthly hospital visits, particularly to retrieve PrEP from the hospital pharmacy,

which operates only during business hours. Participants described this as especially burdensome for individuals with lower socioeconomic resources and expressed concerns about its impact on sustained use.

> …I have friends from lower-income backgrounds, and for many of them, either because of the distance or because they cannot miss work, getting to the hospital pharmacy is difficult. Sometimes it's even closed on weekends, which is when they actually have the time. This doesn't necessarily make them give up, but it does mean they might not take it correctly or consistently. (…) When I was working in a restaurant, I didn't have time to go and pick it up myself…
>
> Participant 11, PrEP user

> When people are called into the doctor's office, you already know what they're there for! So, what I see [when going to PrEP appointments] is mostly older people and, how can I put it… middle class! So, it's not reaching the more disadvantaged groups.
>
> Participant 17, PrEP user

Some users at a major hospital in the capital described access to an automated dispensing system that allowed them to collect PrEP outside regular business hours. They said that "The robot is working well, I've used it twice already and everything went fine. So, I think it's an alternative for this situation [of collecting PrEP at the hospital pharmacy], but it still happens" (Participant 14, PrEP user). However, participants noted that similar options were not available in all hospitals.

Both users and non-users perceived that changes introduced by the new legislation could help overcome the challenges associated with monthly visits to the hospital pharmacy, especially for those living in rural areas. However, some doubts remained about its application: "I didn't really understand how that works! (…) …if it works like that, it's great, but so far, I don't know anything about it!" (Participant 11, PrEP user).

Some participants expressed concerns about three additional points: a) Some individuals may not have a designated family doctor which can be a challenge to access PrEP through the primary healthcare services: "I didn't have a family doctor for many years. I only got one last year, but I never actually used them and only found out about it by chance" (Participant 12, PrEP user); b) PrEP can now be either fully free or only partially subsidized and as reported "What could be improved, in this case [of the new legislation], is for PrEP also to be fully subsidized through primary healthcare services" (Participant 12, PrEP user); and c) The delivery of PrEP through primary healthcare could be reinforcing structural problems of underinvestment in HIV-related services as stated by: "… it has the advantage of making PrEP more accessible. On the other hand, it maintains an existing structural problem of underinvestment" (Participant 8, PrEP non-user).

Stigma Perceptions and Experiences

This domain explores how participants negotiate PrEP-related stigma, considering their perceptions and experiences of stigma, both socially and within the healthcare system. It comprises the following categories: 2.1) self-negotiating PrEP-related stigma; 2.2) social stigma; and 2.3) healthcare system stigma. The first category facilitated PrEP uptake and adherence, whereas the other two categories were barriers to PrEP awareness, uptake, and adherence.

Self-negotiating PrEP-Related Stigma

Among users, narratives often reflected counter-discourses that challenged dominant stigmatizing framings of PrEP. Users described PrEP as a political statement, and as both a right and a privilege not available to previous generations. This perspective was expressed through statements such as "*my body, my rules*" highlighting PrEP to exercise personal agency and navigate HIV-related stigma.

> I like to see PrEP as a political act, because it's about preventing the impact HIV has had on the community of men who have sex with men. I think it's also tied to the stigma around HIV… (…) I also see it as political in another way, because ultimately you're saying, '*This is my body, and I do what I want with it!*'. So, for me, it's a statement that this [your body] is your territory and you can relate to others from that level of communication.
>
> Participant 14, PrEP user

In contrast, non-users acknowledged PrEP as a tool to reduce HIV-related stigma, albeit framing it less politically and more pragmatically. Some of them emphasized that PrEP offers protection against HIV and mitigates HIV-related discrimination.

> … I would also like to add that people are now more aware that you can live with HIV without treating it, as they say, like a seven-headed monster. It's no longer what it used to be. People are informed, and thanks to PrEP, they don't have to be afraid of being in a relationship with someone living with HIV.
>
> Participant 6, PrEP non-user

Social Stigma

Both subgroups reported that PrEP is strongly associated with perceptions of promiscuity, a stigma they noted is not typically attached to condoms.

> I think that even within the LGBTQIA+ community, some people might perceive taking PrEP as a sign of promiscuity – and on top of that, they might also view those who take it as irresponsible.

Participant 8, PrEP non-user

> If I say I use condoms, I could be having sex with way more people than someone on PrEP, and it's still seen as okay because it's a conventional method. I don't even think of condoms as something that marks someone as having many partners or anything like that.

Participant 16, PrEP user

From participants' perspectives, this association was reported both within and outside of the LGBTQIA+ community, and participants described tangible consequences for their social and romantic lives. Users reported experiences in which disclosing PrEP use led partners to suggest condomless sex. Other experiences included potential partners declining to pursue a relationship or interpreting PrEP use as a marker of promiscuity or an inability to commit.

> …even on my Grindr profile, I don't usually put that I use PrEP. Why? Because people have asked me if I want to have bareback sex. So, to avoid those kinds of questions and interactions, I just don't put it.

Participant 13, PrEP user

> …some people, the moment they hear someone takes PrEP, automatically assume they're promiscuous and might not want to engage or explore a possible relationship. That doesn't happen with condoms! I think that's why, in a dating context, especially when looking for a committed relationship, saying you use PrEP can make someone decide not to pursue a relationship with you.

Participant 16, PrEP user

In addition, both users and non-users emphasized the social perception that PrEP is designed exclusively for gay men, reinforcing its characterization as "… a 'niche drug.'" (Participant 11, PrEP user). Plus, they noted that this perception could discourage PrEP promotion and uptake among other groups. This perception was captured in the following participant account: "So, if someone considers themselves straight, they won't seek PrEP because it's associated with gay men. That will definitely discourage other people [outside MSM individuals] from looking into PrEP, even if they have risky behaviors." (Participant 12, PrEP user). This "niche" identity led some individuals to report that, outside gay male communities, PrEP may not be perceived as a viable option, or that they might avoid it to prevent being labelled as gay, sexually promiscuous, or engaging in same-sex sexual activity, regardless of their actual behavior.

Healthcare System Stigma

Users and non-users expressed concerns about stigma and reported experiences of stigmatization within the healthcare system, particularly outside major cities. Such concerns extended beyond healthcare providers and included other medical staff, such as nurses and administrative personnel.

> A few months ago, I went to get STI testing in the northern district where I'm from. I was there, so I decided to get tested. I was chatting with the nurse – so we wouldn't just sit in silence – and I happened to mention PrEP… And she, at first, gave me this sideways look! A nurse! Someone who works in this field! Then she went on to highlight everything bad about it and didn't mention any of the benefits. (...) It's not only stated disadvantages, but they [healthcare providers] should lay it all on the table!
>
> Participant 1, PrEP non-user

Participants described the recent legislation as an important step to expand access to PrEP through primary healthcare services, while noting that additional challenges remain. These included stigma-related concerns that discourage engagement with care, particularly among individuals in rural areas or with intersecting stigmatized identities (e.g., migrant MSM). Some participants described seeking PrEP-related care outside their area of residence, which they associated with concerns about the perception of stigma in their local context. As one participant explained:

> Sometimes I feel a bit uneasy… I'm a foreigner who's been living here [in Portugal] for about ten years. I wouldn't say I've faced racism, but there have been a few situations where I didn't feel comfortable with how people looked at me or talked to me about sexuality. So, the thought of moving the process to a new place in a more conservative city does not really appeal to me.
>
> Participant 13, PrEP user

Perceived Effects of PrEP Use

This domain includes participants' perceptions of HIV risk, their concerns about side effects and the importance of medical follow-up, and how they perceive PrEP as a method to reduce HIV-related anxiety and, subsequently, increase sexual pleasure. It comprises the following categories: 3.1) HIV risk perception; 3.2) reducing anxiety and increasing sexual pleasure; and 3.3) side effects and medical follow-up. The first category was a facilitator of PrEP awareness, uptake, and adherence when participants' perceived risk was high, and a barrier for those with low-risk perception. The second category was a facilitator for uptake and adherence. The third category represented a barrier to uptake and adherence due to side effects, whereas medical follow-up mitigated them.

HIV-Risk Perception

Non-users reported a low perception of risk connected with having a limited number of sexual partners, being in a monogamous relationship, consistent condom use, or trust in their regular sex partner(s).

> I know HIV can be transmitted in other ways, so that's not the issue! But I don't feel the need to take PrEP, because I'm not very sexually active. I am sexually active, just not enough to feel it's necessary.
>
> Participant 3, PrEP non-user

This low perception of HIV risk was linked to participants reporting that they might consider PrEP if specific situations changed.

> But let's say I meet someone I really like who lives with HIV. In that case, I wouldn't have any problem having a relationship with that person just because they live with HIV. However, for my own protection, I would take PrEP.
>
> Participant 6, PrEP non-user

> At the moment, I'm in a monogamous relationship, and we have agreed to be exclusive, so I didn't think it was worth taking PrEP. I decided it wasn't necessary for now, but if things change, I'll start again.
>
> Participant 4, PrEP non-user

In contrast, and despite using condoms, users described a heightened risk perception, often linked to having multiple sexual partners, the notion that every sex practice has risks, or due to a broader concern with safeguarding their overall health.

Furthermore, some PrEP users reported that heightened risk perception led to more frequent STI testing, including between scheduled hospital appointments, often through community-based services that complemented formal healthcare provision: "…because I get checked every six months at the hospital, and every three months there [at the community-based service] since I'm constantly at risk." (Participant 11, user).

Decreased Anxiety and Increased Sexual Pleasure

Participants perceived PrEP as a method that reduced HIV-related anxiety, regardless of using condoms, which contributed to more positive perceptions of sexual experiences and greater sexual pleasure.

> I feel it has made me feel at ease. I end up enjoying more because I no longer have that constant worry in the back of my mind saying, '*What if something*

happens?' Now, if something does happen, I know I'm more protected in that regard.

(Participant 9, PrEP user)

Condoms are among the safest methods, but they are not completely reliable and can break. Numerous things can still happen, even when using them. PrEP gives you an extra layer of protection that helps you feel safer and more relaxed during sex. Everything goes much better because you're not constantly worrying about it!

(Participant 1, PrEP non-user)

Side Effects and Medical Follow-Up

Both users and non-users reported concerns about potential short- and long-term side effects of PrEP, as illustrated by the following quotes: "…this [PrEP use] is still relatively new and hasn't been studied much yet, particularly regarding its long-term effects…" (Participant 10, PrEP user) or "The side effects, that is, adverse reactions. (…) In the long term, we still don't know how the medication will behave when used by a large number of people. To me, this seems to be the main disadvantage." (Participant 5, PrEP non-user).

However, both users and non-users acknowledged that side effects are also common with other medications. A participant reported: "In other words, every medication comes with side effects that people need to be able to manage!" (Participant 6, PrEP non-user).

Moreover, some participants who use PrEP said that "…among people I know, I'm aware of two or three who tried taking it but stopped because of the side effects…" (Participant 10, PrEP user). Some also reported having experienced side effects themselves and adopted strategies to deal with them. These did not negatively affect their uptake, adherence, or retention in PrEP care, or their weighing of the risks and benefits of using PrEP.

At first, I had to take it with a meal so my stomach wouldn't suffer too much. I have some stomach problems, and since they said it could be a strong medication initially, that was the main issue when getting used to it. (…) But now it doesn't affect me. I just had a snack with it, and that's it! I've even forgotten about them [the side effects]. It only happened for about a week, so overall it doesn't really affect my experience.

Participant 9, PrEP user.

In addition, medical follow-up (including support from hospital pharmacists) was highly valued by participants, particularly among users, not only to manage potential side effects but also to undergo regular STI testing and improve overall health lit-

eracy. Participants often framed this ongoing follow-up in relation to managing their perceived risk and maintaining control over their sexual health, rather than as an issue of accessing services.

> …but also all the education that comes with it. Every time I go to the pharmacy, they ask questions… And this should really be pointed out: in Portugal, pharmacists genuinely care. They ask, they guide, and most of the advice, support, and information we get about PrEP comes from pharmacists rather than doctors.
>
> Participant 11, PrEP user

PrEP follow-up was perceived as an additional layer of healthcare monitoring, complementing the care already ongoing in other specialties, as illustrated by a trans participant whom an endocrinologist concurrently followed as part of their gender-affirming care.

> I think it would have a positive impact – the tests I'd be doing would be different, so they would complement each other! (…) In that sense, it gives you a more complete picture than just testing for STIs or just hormones. That way, you can be almost 100% sure that you're healthy!
>
> Participant 7, PrEP non-user

Discussion

The present study aimed to identify the lived experiences of facilitators and barriers to PrEP awareness, uptake, and adherence among MSM living in Portugal. We discussed our findings and reflected on their implications for policy and practice, drawing on a top-down approach informed by the PrEP care continuum and a bottom-up approach grounded in participants' perspectives.

Participants acknowledged PrEP as an important method for HIV prevention. They emphasized the need for improved, equitable access, particularly through community-based services, as well as the importance of increasing awareness and knowledge of PrEP both within and beyond the LGBTQIA+ community. However, users placed greater trust in its efficacy and valued the medical follow-up they received after starting PrEP. In contrast, non-users had more doubts about its effectiveness due to concerns about side effects. These participants also perceived PrEP as time-consuming, whereas users focused more on its advantages. These differences between users and non-users, combined with the low HIV risk perception observed among non-users, suggest that promoting PrEP awareness and PrEP uptake are essential. Moreover, PrEP users tended to overcome many of the challenges reported by non-users, including concerns about potential side effects. This finding aligns with previous studies showing low uptake of PrEP and other interventions, but high adherence

among individuals who initiate care and remain engaged (Brebach et al., 2016; Koss et al., 2020).

The stigma of being perceived as gay or promiscuous – independently of individuals' actual sexual practices – also contributed as a barrier discouraging non-users from adhering to this prevention strategy. This can extend to other prospective users, as literature has been showing that PrEP stigma is a barrier for PrEP uptake and adherence (Lee et al., 2023) and permeates various aspects of MSM's lives with negative effects on their relationships, health behaviors, decision to disclose PrEP use, and mental well-being (Howell et al., 2024).

From an implementation perspective, stigma can therefore be understood as a mechanism that disrupts progression along the continuum by shaping both willingness to seek information about PrEP and subsequent engagement with PrEP care. In this context, service delivery models play a key role in either mitigating or amplifying these barriers, particularly at the points where individuals first encounter PrEP-related information and care pathways. Community-based services were not only the primary channels through which participants became aware of PrEP, albeit facilitating PrEP uptake by linking users to NHS hospitals for their first PrEP appointment and to maintain regular STI testing. This pattern suggests a close connection between community-based services and access to PrEP-related care, as participants described relying on these services not only to maintain regular STI testing but also to bridge gaps between formal healthcare appointments, thereby contributing to sustained engagement in PrEP care. These findings should be interpreted in light of HIV prevention as a plural field in which individuals are expected to make informed choices among multiple available strategies (Rojas-Castro et al., 2019). However, our results suggest that the conditions required for such informed decision-making (e.g., adequate knowledge about PrEP, equitable access to healthcare) are not yet fully met. Limited PrEP literacy among both the general population and healthcare professionals (Simões et al., 2021), alongside persistent stigma across healthcare and social contexts, continues to shape individuals' engagement with prevention options. In parallel, uneven availability of community-based and specialized healthcare services further constrains access to PrEP-related care, reflecting broader structural inequities in healthcare provision.

Evidence from related domains suggests that such disparities in service availability and quality are closely linked to geographic and organizational factors that shape healthcare access and utilization patterns (Costa et al., 2020; de Sousa Pinto et al., 2025; Simões de Almeida et al., 2023). Taken together, these intersecting barriers may limit individuals' ability to effectively navigate prevention options, initiate PrEP, and sustain engagement in care.

Improving PrEP awareness, uptake, and adherence requires coordinated efforts that address both individual-level understanding and the structural conditions that shape access. Comprehensive sexuality education introduced at earlier stages may play a key role in strengthening individuals' capacity for informed choice across multiple prevention strategies. Such programs support decision-making grounded in scientific knowledge and age- and culturally appropriate skills (Shibuya et al., 2023) and are associated with safer sexual behaviors and improved communication among young people (Scull et al., 2025).

Our findings also underscore the importance of integrating both prevention and promotion discourses, thereby supporting a more holistic approach to sexual health and well-being (Gamson & Hertz, 2023; Rodrigues et al., 2022). Nonetheless, structural challenges remain, particularly regarding religious and cultural norms that may hinder the implementation of such programs, as observed both globally (Shibuya et al., 2023) and in the Portuguese context (Vieira, 2024).

Similarly, at the level of healthcare systems and clinical interactions, healthcare professionals and providers play a central role in enabling informed choice within HIV prevention. However, they need greater awareness of and knowledge about PrEP, especially in light of the changes introduced by the new legislation. Otherwise, they may be unable to initiate conversations about PrEP or may be unlikely to prescribe it to their patients, thereby compromising patients' awareness of this prophylaxis method (Calabrese et al., 2022; Remy & Enriquez, 2019). For example, a recent study found that professionals with limited HIV-related training and lower levels of HIV knowledge were more likely to exhibit higher levels of HIV stigma (Cota Medeiros et al., 2025).

These findings illustrate how interactions with healthcare providers can either enable or constrain individuals' capacity to make informed decisions about prevention strategies, influencing PrEP awareness, uptake, and adherence. This underscores the need for strong, trust-based patient–provider relationships to promote equitable access and sustained engagement in PrEP care (Laborde et al., 2020).

Extending these considerations to service delivery, access to PrEP in broader settings – such as primary healthcare centers – has been identified as a key strategy to increase uptake (Calabrese, 2020). However, our findings suggest that expanding access alone is insufficient to support informed decision-making if not accompanied by efforts to address stigma both within and beyond the healthcare system, as well as persistent gaps in awareness and knowledge about PrEP.

As such, strengthening PrEP implementation requires coordinated efforts that address barriers across the continuum of care, from awareness to sustained engagement. These insights may inform ongoing and future efforts to expand PrEP delivery through primary healthcare services, both in Portugal and in other settings undergoing similar transitions or aiming to strengthen PrEP implementation.

Limitations and Future Studies

The present study contributes to a deeper understanding of the facilitators and barriers to PrEP awareness, uptake, and adherence among MSM living in Portugal, considering the perspectives of both PrEP users and non-users. We sought to capture a broad range of experiences by including individuals with diverse characteristics (e.g., younger and older individuals, participants of different nationalities and migrant statuses, individuals living in both rural and urban areas). Despite efforts to ensure inclusive recruitment across the MSM population, the use of the term MSM may have limited participation from individuals whose identities do not align with this terminology, contributing to the low representation of trans men. Future research should examine the perspectives of underrepresented groups, including trans women and non-binary individuals, to better understand their specific experiences and needs, as well as those of key stakeholders such as healthcare providers.

Additionally, future research using quantitative approaches with larger and more representative samples could further enhance understanding of the topic.

Author's conclusion

This study highlights that strengthening PrEP implementation in Portugal requires approaches that move beyond individual-level determinants to address the interplay of structural, social, and experiential factors shaping engagement across the PrEP care continuum. Community-based services play a key role in raising awareness, providing tailored support, and facilitating entry into PrEP-related care. However, their concentration in urban areas contributes to persistent geographic inequities, particularly for individuals in rural settings and those with intersecting vulnerabilities.

The recent expansion of PrEP provision to primary healthcare represents an important opportunity to improve accessibility. However, expanding availability alone is unlikely to be sufficient. Effective implementation will depend on sustained investment in healthcare system capacity, including training for healthcare professionals, efforts to reduce stigma within care settings, and the development of interventions that are responsive to diverse needs and contexts.

In this context, improving PrEP engagement is not solely a matter of increasing uptake but of ensuring that individuals can access, understand, and choose among prevention options without structural or informational barriers.

While our findings are consistent with international research on multi-level determinants of PrEP engagement, they also highlight the importance of context-specific evidence. In Portugal, sociocultural factors and the organization of the healthcare system shape how individuals experience and navigate PrEP-related care.

As PrEP becomes increasingly integrated into primary healthcare, ongoing research will be essential to monitor implementation, examine how different populations engage with services, and identify strategies to promote equitable access. These insights may also inform implementation efforts in other settings undergoing similar transitions.

Supplementary Information The online version contains supplementary material available at https://doi.org/10.1007/s12119-026-10602-w.

Author Contributions All authors contributed to the study conception and design. Guilherme G. Pinheiro, Carla Moleriro, and David L. Rodrigues performed material preparation, data collection, and analysis. Guilherme G. Pinheiro wrote every draft of the manuscript, and all authors commented on all versions of the manuscript. All authors read and approved the final manuscript.

Funding Open access funding provided by FCT|FCCN (b-on). This study was supported by the Merit Scholarship for PhD students at the School of Social Sciences and Humanities of Iscte – Instituto Universitario de Lisboa.

Declarations

Conflict of interest The authors have no relevant financial or non-financial interests to disclose.

Ethical Approval This study was performed in line with the principles of the Declaration of Helsinki. The study was approved by the ethical committee of CIS-Iscte (Ref.: 24/033 of January 31, 2025). Informed

consent was obtained from all individual participants included in the study. The authors affirm that participants provided informed consent for publication.

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