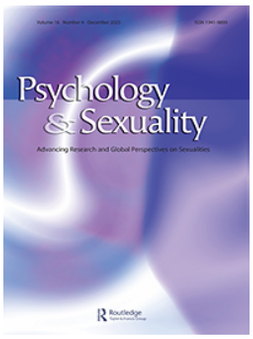

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RESEARCH ARTICLE

PrEP acceptability and self-efficacy in men who have sex with men: the roles of identity, trust and knowledge

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ABSTRACT

This study investigates psychosocial and structural predictors of pre-exposure prophylaxis (PrEP) acceptability and self-efficacy, addressing the need for targeted interventions to improve PrEP uptake in the United Kingdom (UK). A cross-sectional, online survey was conducted among UK-based men who have sex with men not currently using PrEP ($N = 246$). Participants completed validated measures assessing identity resilience, LGBTQ+ connectedness, outness, medical mistrust, perceptions of the NHS, and HIV knowledge. Structural equation modelling (SEM) was used to examine the relationships between these psychosocial factors and PrEP acceptability and self-efficacy, while controlling for age, previous sexually transmitted infection diagnosis, and condomless sex. The SEM demonstrated excellent model fit. PrEP acceptability was positively associated with LGBTQ+ connectedness and negatively associated with medical mistrust. Conversely, PrEP self-efficacy was positively associated with identity resilience, outness, NHS perceptions, and HIV knowledge. Findings show that the predictors of PrEP acceptability and self-efficacy are different, which should help inform interventions for promoting PrEP use . Enhancing LGBTQ+ connectedness and reducing medical mistrust may increase PrEP acceptability, while fostering identity resilience, outness, and positive perceptions of the NHS could strengthen PrEP self-efficacy. This study identifies distinct yet complementary predictors of PrEP acceptability and self-efficacy, emphasising the necessity for tailored interventions.

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HIV; PrEP; self-efficacy; acceptability; MSM

Introduction

Pre-exposure prophylaxis (PrEP) is a highly effective biomedical intervention for preventing human immunodeficiency virus (HIV) (Donnell et al., 2014). Despite excellent clinical efficacy, PrEP uptake is stagnating among key populations at elevated risk of HIV acquisition, including men who have sex with men (MSM) (Estcourt et al., 2023). Additionally, while new HIV infections among MSM in the United Kingdom (UK) have declined, this progress is now plateauing (UKHSA, 2023). Increasing PrEP uptake is

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crucial for achieving the UNAIDS targets of no new HIV infections by 2030 (Stover et al., 2021). Yet, global progress towards these targets is increasingly uncertain. The withdrawal of funding from the President's Emergency Plan for AIDS Relief (PEPFAR) in the United States is projected to reverse gains in HIV prevention worldwide, with an increase in the rate of new infections anticipated (Brink et al., 2025). Although biomedical innovations such as long-acting injectable PrEP offer new promise, their impact will remain limited without sustained attention to barriers to uptake with this issue exacerbated in the global south due to the removal of funding (Koss & Parikh, 2025). These developments illustrate that the global HIV response remains fragile and politicised (Kalichman, 2025), highlighting the importance of continued psychosocial research to strengthen PrEP engagement even in contexts such as the UK.

Research shows that numerous social and psychological barriers impact PrEP uptake in key populations in the UK (e.g., Golub et al., 2019). Two critical but distinct determinants of PrEP engagement, initiation, and adherence are *PrEP acceptability* (i.e., general approval of PrEP) and *PrEP self-efficacy* (i.e., confidence in one's ability to take PrEP consistently as prescribed) (Gifford et al., 2025c). While these constructs are interrelated, they are shaped by different psychological and social factors (Shrestha et al., 2017). Analogous research on other sexual health behaviours, such as HPV vaccine uptake, has demonstrated that both acceptability and self-efficacy must be addressed simultaneously to achieve meaningful behaviour change (Osaghae et al., 2023).

PrEP acceptability and self-efficacy

While PrEP acceptability alone may increase willingness to take the medication, without PrEP self-efficacy, individuals may still struggle with uptake and adherence, for example, within external contexts shaped by stigma, healthcare access, and other social or structural barriers (Sun et al., 2022). Conversely, high self-efficacy without acceptability may not translate into behaviour change (Honarvar et al., 2024). Research suggests that some individuals may possess high self-efficacy for PrEP use, for example, feeling confident about obtaining it free of charge through the National Health Service (NHS) or managing to take an oral medication, yet still report low acceptability due to social attitudes towards HIV prophylaxis (e.g., preferring condoms) or concerns about potential side effects (Gifford et al., 2025b, 2025c). This aligns with health behaviour theories, which emphasise that perceived benefits (acceptability) and confidence in action (self-efficacy) are distinct but complementary drivers of health-related decisions (Hacker et al., 2005). Understanding the distinct and interactive influences of acceptability and self-efficacy is essential, as each may be shaped by different psychological, social, and structural determinants. By identifying the unique factors that predict higher acceptability and self-efficacy, we can develop more targeted and effective interventions to enhance PrEP uptake and adherence (Gifford et al., 2025a).

Medical mistrust, healthcare, and PrEP uptake

Extensive research has demonstrated that HIV knowledge and trust in healthcare systems play pivotal roles in shaping engagement with PrEP. Greater awareness of

HIV transmission and prevention strategies is associated with increased PrEP acceptability and uptake (Bauermeister et al., 2013). Conversely, negative healthcare experiences or medical mistrust – stemming from historical and ongoing inequities in healthcare – can serve as barriers to PrEP uptake (Coukan et al., 2023), particularly in historically marginalised communities, such as MSM (Jolley & Jaspal, 2020). Jaspal (2025) argues that medical mistrust is not merely an institutional issue but is shaped by individual perceptions of healthcare providers, experiences of discrimination, and public narratives concerning health interventions. Examining how these factors influence acceptability and self-efficacy can therefore provide insight into targeted strategies to improve PrEP engagement (Gifford et al., 2025c).

Given the central role of trust in healthcare engagement, perceptions of the NHS may significantly influence PrEP acceptability and self-efficacy. The NHS's delayed rollout of PrEP and the subsequent legal challenges and media scrutiny (Nagington & Sandset, 2020) may have further reinforced negative perceptions of PrEP, particularly among MSM. The stigmatising nature of the court case, which framed PrEP as a treatment for 'high-risk' groups, may have exacerbated concerns about NHS trustworthiness, directly influencing MSM's willingness to access PrEP and their confidence in doing so (Gifford et al., 2025c; Jaspal, 2020).

Psychosocial barriers and PrEP engagement

Beyond structural and health-care related factors, psychological constructs play a crucial role in shaping PrEP engagement (Jaspal, 2018) and must therefore be examined further (Golub, 2014). Theoretical models of health behaviour suggest that marginalised communities, including MSM, are disproportionately affected by stigma, which can negatively influence health-seeking behaviours (Bunting et al., 2022). However, psychological resilience may serve as a protective factor buffering these effects (Dulai & Jaspal, 2024). Within psychological scholarship, resilience is not conceptualised merely as an individual trait but as a dynamic process of identity maintenance and adaptation to threat (Breakwell, 2021; Fletcher & Sarkar, 2013). Similarly, the notion of community extends beyond social belonging to encompass shared meaning-making, mutual support, and collective identity among lesbian, gay, bisexual, trans, queer (LGBTQ+) individuals (Szymanski et al., 2023), each of which can shape attitudes towards population-targeted health interventions. For example, LGBTQ+ connectedness (i.e., the sense of belonging to and identifying with the wider LGBTQ + community) has been shown to buffer against the negative effects of stigma (Jaspal et al., 2023), fostering greater engagement with sexual health services, including PrEP (Gifford et al., 2025c). Similarly, identity resilience (i.e., the ability to maintain a positive self-concept in the face of adversity or change) may strengthen confidence in health-related decision making (Breakwell et al., 2023). Additionally, 'outness' (i.e., the number of people to whom they have disclosed their sexual identity and the extent of disclosure to each person) has been linked to increased healthcare utilisation, as greater visibility and comfort with one's identity may facilitate positive engagement with health services (Lopes & Jaspal, 2024).

The current study

Despite the well-documented barriers to PrEP uptake, limited research has explored how multiple psychosocial factors jointly shape PrEP acceptability and self-efficacy. A key contribution of this study is its focus upon variables operating at multiple levels, for example, the intrapsychic (e.g., identity resilience), interpersonal (e.g., outness, LGBTQ+ connectedness), and institutional (e.g., healthcare perceptions) and their effects for PrEP acceptability and self-efficacy. Understanding how these factors interact is imperative for developing effective, targeted healthcare interventions for promoting PrEP uptake and engagement (Estcourt et al., 2023).

This study examines the psychosocial predictors of PrEP acceptability and self-efficacy in a sample of UK-based MSM who are not currently using PrEP. Using structural equation modelling, we assess the relative contributions of identity resilience, outness, LGBTQ+ connectedness, HIV knowledge medical mistrust, and perceptions of the NHS to predicting PrEP acceptability and self-efficacy, respectively. Given that prior condomless sex, recent STI diagnosis, and age have been found to influence PrEP use (LeVasseur et al., 2018), their effects are controlled for in the model. In summary, it is hypothesised that:

H1. Stronger LGBTQ+ connectedness and higher identity resilience will be associated with higher PrEP acceptability.

H2. Lower medical mistrust and greater HIV knowledge will be associated with higher PrEP acceptability.

H3. Higher identity resilience and greater outness will be associated with higher PrEP self-efficacy.

H4. More positive perceptions of the NHS and greater HIV knowledge will be associated with higher PrEP self-efficacy.

H5. Though distinct psychological constructs, PrEP acceptability and PrEP self-efficacy will be positively correlated.

Method

Participants and design

UK-based MSM were recruited using convenience sampling, via social media, to participate in a cross-sectional, online study between June and August 2024. Participants who were aged 18 or over, assigned male at birth, reported having more than one current sexual partner, seronegative for HIV but not currently taking PrEP were asked to participate in a 10-minute, self-report survey hosted on the online platform Gorilla (Anwyl-Irvine et al., 2020).

A favourable ethical opinion was granted by the Schools of Business, Law, and Social Sciences Research Ethics Committee of Nottingham Trent University. Participants provided informed consent before commencing the study and could withdraw at any point

during the study or up to four weeks after completion. There were no participant withdrawals.

Due to pharmacokinetic differences in PrEP usage across gendered physiology (Yager & Anderson, 2020), this study included only individuals assigned male at birth. This approach was informed by two key considerations: first, the limited research on potential interactions between PrEP and gender-affirming treatments, which may influence perceptions of PrEP use; and second, the need to differentiate between the experiences of cisgender and transgender individuals to ensure that the distinct barriers each group faces in accessing PrEP are not conflated (Sevelius et al., 2016). Furthermore, only individuals who were HIV-negative and therefore eligible for PrEP were eligible to participate.

Measures

Demographics

Participants were asked their age, sexuality (gay, bisexual, other), ethnicity (White, mixed, Asian/British Asian, Black, other), relationship status (single, open/polyamorous, other), degree of sexuality disclosure (i.e., 'outness'; out to everyone, out to some people, not out to anyone). Participants were also asked whether they had engaged in condomless sexual intercourse in the last 6 months and whether they had received a STI diagnosis in the last 6 months (with two possible responses: yes or no).

LGTBQ+ connectedness

We used a modified version of the 8-item Connectedness to the LGBT Community Scale (Frost & Meyer, 2012) measured on a 4-point Likert scale (1 = strongly disagree to 4 = strongly agree). An example item is 'You are proud of the LGBTQ+ community'. A higher mean score indicated higher LGBTQ+ connectedness. The scale had excellent internal validity when developed ($\alpha = .81$).

Medical mistrust

We used the 10-item Health Care System Distrust Scale (Rose et al., 2004), measured on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). An example item is 'Some medicines have things in them that they don't tell you about'. Three items are reversed scored (e.g. 'My medical records are kept private'). A higher mean score indicated higher medical mistrust. The scale had acceptable internal validity in other research ($\alpha = .79$) (Turhan et al., 2022).

Identity resilience

We used the 16-item Identity Resilience Index (Breakwell et al., 2022) measured on a 5-point scale (1 = strongly disagree to 5 = strongly agree). Example items include 'I feel unique' (distinctiveness) and 'Thanks to my resourcefulness, I know how to handle unforeseen situations' (self-efficacy). Higher scores indicated a higher level of identity resilience. This scale had excellent internal reliability in related research ($\alpha = .83$) (Breakwell et al., 2023).

NHS perceptions

We used the 3-item 'Typical experiences of the NHS' sub-scale of the NHS experiences questionnaire (Freeman et al., 2022) measured on three-point Likert scale (1 = No, 2 = Maybe, 3 = Yes). An example item is 'Your community is looked after well by the NHS'. A higher score indicated more positive perceptions of the NHS. As the measure is used for the first time, previous reliability scores are not available.

HIV knowledge

We used the 12-item HIV Knowledge Awareness Tool (Guimarães et al., 2019), which consists of 12 statements about the transmission/prevention of HIV. Response options were either 'true', 'false', or 'I don't know'. An example statement is 'A healthy-looking person may be HIV+'. Correct answers were scored as 1, and incorrect or 'I don't know' responses were scored as 0. A higher total score indicated greater knowledge of HIV. The 12-item HIV Knowledge Awareness Tool had an acceptable internal reliability score in wider literature (α = .64) (Ferreira et al., 2022) consistent with the reliability observed in the present study.

PrEP acceptability

We used the 14-item Attitudes Towards PrEP Scale (Jaspal et al., 2019) measured on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). An example item includes 'PrEP is an exciting breakthrough in medical science'. A higher mean score indicated higher PrEP acceptability. This scale had excellent internal reliability in related research (α = .80) (Gifford et al., 2025a).

PrEP self-efficacy

We used the 8-item Perceptions of PrEP Self-Efficacy Behaviour subscale (Walsh, 2019) measured on a 4-point Likert scale (1 = very hard to do to 4 = very easy to do). An example item includes 'How difficult would it be for you to take a medicine like PrEP every day?'. A higher mean score indicated greater PrEP self-efficacy. This scale has shown good internal reliability in other studies (α = .74) (Gifford et al., 2025a).

Data analysis

Descriptive and bivariate analyses were conducted using SPSS Version 26. The structural equation modelling was conducted using the R package 'lavaan'. SEM was chosen as it allows for the simultaneous estimation of multiple interrelated dependent variables (PrEP acceptability and PrEP self-efficacy) and the inclusion of latent constructs measured by multiple indicators (e.g. identity resilience, medical mistrust, LGBTQ+ connectedness) (Hoyle, 2012). This approach provides a more comprehensive understanding of the relationships between psychosocial predictors and PrEP-related outcomes while accounting for shared variance between constructs. Model fit was assessed using multiple indices, including the Chi-square statistic (χ^2), Comparative Fit Index (CFI), Tucker – Lewis Index (TLI), and Standardized Root Mean Square Residual (SRMR), following conventional guidelines for good model fit (CFI and TLI ≥.90; SRMR ≤.08; e.g (Rigdon, 1996; Shrestha et al., 2017; Taasoobshirazi & Wang, 2016).

Results

Overall, N = 253 participants enrolled in the study. Seven cases were removed due to ineligibility (e.g., not being assigned male at birth). Therefore, 246 participants' data were used for the analysis. Participants were aged 18–72 ($M = 31.60$, $SD = .65$). The majority of the participants were gay (61.4%), White (82.9%) and single (93.1%). Further sociodemographic characteristics are presented in Table 1.

Descriptive statistics and bivariate correlation coefficients for the constructs in the theoretical model are presented in Tables 2 and 3 respectively.

A structural equation model was conducted using Maximum Likelihood estimation to examine the effects of LGBTQ+ connectedness, medical mistrust, outness, identity resilience, NHS perceptions, and HIV knowledge upon PrEP acceptance and PrEP self-efficacy, while controlling for age, STI history, and condomless sex. The model demonstrated excellent fit based on multiple fit indices: χ^2 (7, 246) = 4.974, $p = .663$, indicating no significant discrepancy between the observed and model-implied covariance matrices. Additional fit indices further confirmed strong model fit, including a Comparative Fit Index (CFI) of 1.000, a Tucker-Lewis Index (TLI) of 1.047, and a Standardised Root Mean Square Residual (SRMR) of 0.013. The regression paths for each of the variables are presented in Figure 1. Significant beta coefficients are represented with solid arrows.

Table 1. Sample characteristics of UK MSM ($N = 246$).

Demographic	Number	Percentage
Sexuality		
Gay	$n = 151$	61.4%
Bisexual	$n = 92$	37.4%
Other	$n = 3$	1.2%
Ethnicity		
White	$n = 204$	82.9%
Mixed	$n = 9$	3.7%
British Asian/Asian	$n = 20$	8.1%
Black	$n = 7$	2.8%
Other	$n = 6$	2.4%
Relationship Status		
Single	$n = 229$	93.1%
Open/Polyamorous Relationship	$n = 15$	6.1%
Other	$n = 2$	0.8%
Engaged in condomless sex in the last 6 months		
Yes	$n = 84$	34.1%
No	$n = 162$	65.9%
Had a STI diagnosis in the last 6 months		
Yes	$n = 7$	2.8%
No	$n = 239$	97.2%

Table 2. Descriptive statistics for all the constructs.

Variable ($N = 246$)	Mean	SD	Cronbach's Alpha ($\alpha =$)	95% Confidence Boundaries
Identity Resilience	3.41	0.60	0.87	[0.86 to 0.88]
LGBTQ+ Connectedness	2.71	0.66	0.92	[0.91 to 0.93]
Outness	2.51	0.65	N/A	N/A
Medical Mistrust	2.62	0.66	0.84	[0.83 to 0.85]
NHS Perceptions	2.31	0.60	0.82	[0.78 to 0.84]
HIV Knowledge	8.39	1.98	0.65	[0.63 to 0.84]
PrEP Acceptability	3.83	0.45	0.79	[0.78 to 0.80]
PrEP Self-Efficacy	3.04	0.52	0.77	[0.76 to 0.79]

Table 3. Bivariate correlation matrix.

Variable	1	2	3	4	5	6	7
1Identity Resilience							
2 LGBTQ+ Connectedness	.272**						
3 Outness	.262**	.389*					
4 Medical Mistrust	−.196**	−.141**	−.145*				
5 NHS Perceptions	−.160*	−.233**	−.080	−224**			
6 HIV Knowledge	.106	.245**	.276**	−.201**	−.091		
7 PrEP Acceptability	.176**	.257**	.133*	−.351**	−.046	.135*	
8 PrEP Self efficacy	.391**	.136*	.325**	−.213**	.191**	.198**	.212**

*Correlation is significant at the ($p < 0.05$) level (2-tailed); **Correlation is significant at the ($p < 0.01$) level (2-tailed).

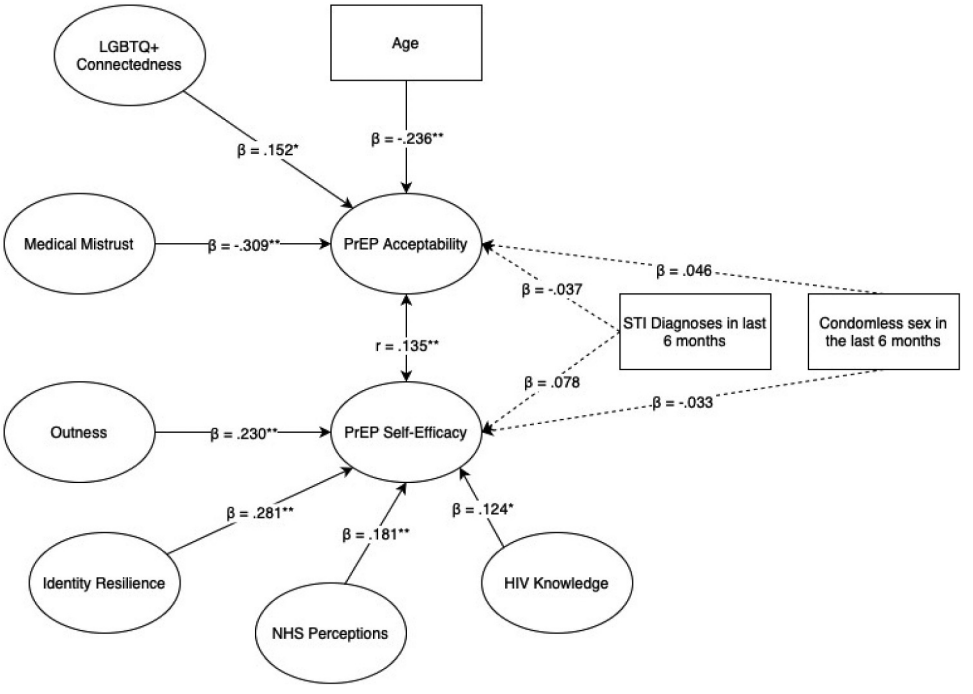

Figure 1. Standardised path coefficients for the structural equation model predicting PrEP acceptability and PrEP self-efficacy. Ellipses denote latent variables; dashed lines indicate non-significant paths. *$p < 0.05$; **$p < .001$.

The results indicate that LGBTQ+ connectedness and medical mistrust predict PrEP acceptability. Individuals with stronger connections to the LGBTQ+ community reported higher PrEP acceptability, whereas higher medical mistrust was associated with lower PrEP acceptability. Age also negatively predicted PrEP acceptability, indicating that older individuals exhibited lower PrEP acceptability.

Results indicated that identity resilience, outness, NHS perceptions, and HIV knowledge were all significant positive predictors of PrEP self-efficacy. Individuals with greater identity resilience, higher outness, more positive perceptions of the NHS, and greater HIV-related knowledge reported higher PrEP self-efficacy. Neither STI diagnosis nor condomless sex in the last 6 months was statistically significantly associated with PrEP acceptability or self-efficacy.

PrEP acceptability and self-efficacy were significantly, albeit weakly, positively correlated, indicating that these conceptually distinct constructs are related. Overall, the model accounted for 24.4% of the variance in PrEP acceptability ($R^2 = .244$) and 24.8% of the variance in PrEP self-efficacy ($R^2 = .248$), indicating moderate explanatory power.

Discussion

This study examines the contribution of psychological, structural, and situational constructs on both PrEP acceptability and PrEP self-efficacy among UK-based MSM not currently using PrEP. While LGBTQ+ connectedness significantly predicted PrEP acceptability, identity resilience did not, indicating that hypothesis 1 was only partially supported. Similarly, while lower medical mistrust was associated with higher PrEP acceptability, HIV knowledge was not a significant predictor. Therefore, hypothesis 2 was also partially met. In contrast, both identity resilience and outness significantly predicted PrEP self-efficacy, fully supporting hypothesis 3. Likewise, positive NHS perceptions and HIV knowledge were significant predictors of PrEP self-efficacy, supporting hypothesis 4. As hypothesised, PrEP acceptability and self-efficacy were positively correlated, albeit weakly, supporting hypothesis 5. Additionally, while neither condomless sex nor STI diagnosis in the last 6 months predicted either PrEP acceptability or self-efficacy, age was negatively associated with PrEP acceptability, with older individuals exhibiting lower PrEP acceptability.

This study contributes to the growing body of literature emphasising the significant role of psychosocial factors in shaping health-related decision making, particularly among marginalised groups such as MSM (e.g., Marcus et al., 2019). The findings align with previous research demonstrating that factors beyond biomedical efficacy, such as social connectedness, identity resilience, and trust in healthcare systems, are key determinants of engaging with protective health behaviours (Dulai & Jaspal, 2024; Lopes & Jaspal, 2024; Turhan et al., 2022). This study uniquely identifies separate but complementary psychosocial predictors of PrEP acceptability and PrEP self-efficacy, demonstrating that these constructs are shaped by distinct psychological pathways. The novelty of this study lies in its simultaneous analysis of acceptability and self-efficacy, two conceptually distinct constructs that are typically examined in isolation within existing research. For example, while prior research has consistently identified community connectedness and medical mistrust as key influences on PrEP attitudes and uptake, the current study extends this literature by examining these factors alongside other psychosocial and structural variables within a single model (e.g., Bauermeister et al., 2013; Golub et al., 2019; Jolley & Jaspal, 2020; Soares et al., 2023). Theoretically, it advances understanding of the psychosocial determinants of PrEP engagement by demonstrating that even seemingly related constructs, operate through distinct pathways to influence PrEP acceptability and self-efficacy. Practically, this distinction allows for more targeted intervention design by identifying which psychosocial factors are most salient for improving PrEP engagement.

PrEP acceptability and self-efficacy were predicted by distinct, yet thematically linked, psychosocial factors. Acceptability was associated with age, LGBTQ+ connectedness, and medical mistrust – constructs that reflect attitudes shaped by lived experience, social affiliation, and trust in healthcare systems. Though operating at different levels (individual, interpersonal, and structural), these predictors converge on themes of belonging

and institutional trust, both of which shape perceived value and social perceptions of PrEP.

In contrast, PrEP self-efficacy was predicted by degree of outness, identity resilience, NHS perceptions, and HIV knowledge – factors that span interpersonal, intrapersonal, structural, and cognitive domains. Despite this diversity, they collectively support an individual's confidence and perceived control in accessing and adhering to PrEP. The overall observed divergence in predictors suggests that PrEP acceptability is shaped more by social positioning and trust, while self-efficacy is driven by internal agency, the ability to cope with change (i.e.., identity resilience), and informational empowerment.

PrEP acceptability

PrEP acceptability was significantly predicted by LGBTQ+ connectedness, suggesting that social affiliation with the LGBTQ+ community fosters approval of PrEP. Positive group membership not only offers a sense of identity and belonging but also plays a powerful role in shaping the uptake of shared social norms (Jaspal, 2020). In the context of the LGBTQ+ community, where sexual health and HIV prevention are prominent collective concerns, being embedded within the community can increase exposure to health-promoting norms (e.g.,'I take PrEP to protect myself and others') and this can be seen as responsible and commendable. This dynamic reinforces PrEP as a normative and desirable health intervention within the group, thereby enhancing its overall acceptability and uptake (Jaspal et al., 2020). Conversely, limited engagement with the LGBTQ+ community may reduce exposure to supportive social representations of PrEP diminishing willingness to use it (Jaspal, 2018).

Higher mistrust in medicine was associated with lower PrEP acceptability, reinforcing existing barriers to engagement with HIV prevention (El-Krab et al., 2023). This is particularly relevant for gay and bisexual MSM, who have historically been underserved, and at times actively harmed, by medical institutions (Pachankis et al., 2015). Such histories can foster deep-rooted scepticism towards healthcare systems and the innovations they promote (Chan et al., 2021). As Breakwell (2020) argues, mistrust in an institution leads to heightened uncertainty and disengagement from the health behaviours it endorses. In this context, medical mistrust operates as a systemic form of scepticism, shaping overall attitudes towards healthcare provision and, in turn, reducing the perceived legitimacy and acceptability of interventions like PrEP.

PrEP self-efficacy

PrEP self-efficacy was predicted by identity resilience, which in part assesses general self-efficacy (i.e., belief in one's ability to perform a behaviour) and thus these data suggests that general self-efficacy influences domain specific self-efficacy (i.e., taking PrEP) (Breakwell, 2021). Outness may enhance self-efficacy by reducing concealment stress, as individuals who are more open about their sexuality are more likely to seek healthcare support without fear of stigma (Watson et al., 2020).

Positive perceptions of the NHS were significantly associated with higher PrEP self-efficacy (Haggipavlou & Hamshaw, 2023). The NHS perceptions scale aimed to measure beliefs about how well one's community is treated by the NHS, for example, whether

participants felt their community is served well or, conversely, neglected. Individuals who believe their community is respected and cared for by the NHS may feel more empowered to access services like PrEP, ask questions, and adhere to clinical guidance (Breakwell, 2023). As such, positive NHS perceptions may reduce anticipated stigma or discrimination, strengthening individuals' belief that they can successfully engage with PrEP-related care (Collins, 2022).

Finally, greater HIV knowledge enhances self-efficacy by improving understanding of PrEP efficacy and adherence requirements, reducing uncertainty and supporting confidence in its use (Sun et al., 2022).

Implications and limitations

These distinctions indicate that, while each construct plays a vital role, an integrative approach that targets both acceptability and self-efficacy could have a stronger impact on improving overall PrEP engagement. These findings also challenge existing assumptions about PrEP engagement by showing that variables commonly associated with each other, (e.g., LGBTQ+ community connectedness and outness; medical mistrust with NHS perceptions) exert independent effects when modelled simultaneously.

The distinct predictors of these constructs, ranging from structural and interpersonal to psychological factors, suggest that interventions must be multidimensional and tailored to address these different layers of influence. Tailored interventions that address social barriers to PrEP acceptability while simultaneously enhancing PrEP self-efficacy through education and identity-based support mechanisms may be particularly effective in increasing PrEP uptake (Jaspal, 2020). For example, to enhance acceptability, efforts should focus on reducing medical mistrust through community-driven healthcare initiatives, increasing visibility of PrEP within LGBTQ+ spaces (Phillips et al., 2020), and addressing concerns about NHS resource allocation. Simultaneously, strategies to improve self-efficacy should target individual psychological factors, such as promoting identity resilience through peer support programmes, increasing PrEP literacy, and fostering open discussions about sexual health to normalise PrEP use (Rousseau et al., 2021).

While the present findings relate specifically to oral PrEP, recent evidence in related research suggests that medical trust and HIV knowledge remain key predictors of PrEP acceptability and self-efficacy with the introduction of other modalities such as long-acting injectable PrEP (Ogunbajo et al., 2025; Shangani et al., 2025). However, psychosocial processes such as outness may operate differently with injectable formulations, as the need to store or transport medication, potential sources of concealment anxiety for some MSM, are reduced – allowing for increased discretion (Paudel et al., 2023). Consequently, while structural and cognitive determinants, such as trust and knowledge, are likely to remain central, the salience of interpersonal and identity-related factors will evolve. Continued research should therefore build upon these findings to examine how long-acting injectable PrEP reshapes the psychological and social dynamics of PrEP engagement across diverse MSM communities as it becomes increasingly available (Wise, 2025).

Several limitations of this research must also be considered. First, the cross-sectional design limits causal interpretations of the relationships between psychosocial factors and PrEP-related outcomes. Longitudinal research with the use of intervention is needed to determine whether changes in factors such as medical mistrust, LGBTQ+ connectedness, or NHS perceptions

predict shifts in PrEP attitudes and self-efficacy over time. Qualitative research could also explore the causes of medical mistrust and NHS perceptions in current non-PrEP users.

Second, the opportunistic sampling method resulted in a participant group that was predominantly White, limiting our ability to analyse PrEP acceptability and self-efficacy across global majority populations and diverse cultural experiences. This demographic skew likely underrepresents the experiences of ethnic minority men, among whom historical and ongoing medical marginalisation may further shape trust and engagement with PrEP (Raiford et al., 2025). Similarly, bisexual and other men who have sex with men are often less visible in both PrEP research and LGBTQ+ community spaces, and potentially experience lower connectedness and different patterns of medical mistrust (Kampler, 2023; Zapata et al., 2022). Future work should therefore aim to include more ethnically and sexually diverse samples to better capture how intersecting identities influence PrEP acceptability and self-efficacy.

Finally, this study focused exclusively on MSM in the UK. Further research should compare these findings to other populations, in the UK and globally, who are also at elevated risk of HIV acquisitions (e.g., trans and gender diverse populations) to identify differences in facilitators and barriers to uptake. The present hypotheses may not hold for all groups that experience intersecting experiences of exclusion, stigma, and medical mistrust. Alternative explanations beyond the current model, such as perceived stigma, socioeconomic barriers, or broader sexual health literacy, may further account for variations in PrEP engagement. Examining these factors across diverse populations will help clarify the generalisability of the present findings and refine our understanding of the social and psychological mechanisms underlying PrEP uptake.

Conclusions

This study highlights the importance of both psychological and structural factors in shaping PrEP engagement among MSM in the UK. By identifying distinct predictors of PrEP acceptability (namely LGBTQ+ connectedness, medical mistrust, and age) and self-efficacy (namely outness, identity resilience, HIV knowledge, and NHS perceptions), these findings suggest that a comprehensive approach targeting both domains may be valuable for increasing PrEP uptake. The inclusion of non-PrEP users provides valuable insights into the barriers faced by those who could benefit from PrEP but are not currently using it, allowing for the development of more inclusive and effective interventions. Future research should continue exploring these relationships over time and across diverse MSM populations to further refine strategies for improving PrEP accessibility and adherence.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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Data availability statement

The data that support the findings of this study are available from the corresponding author, AG, upon reasonable request.

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