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RESEARCH ARTICLE

Implementing HIV pre-exposure prophylaxis (PrEP) among cisgender female sex workers: A worldwide scoping review to guide the future research agenda for HIV prevention

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Abstract

Female sex workers (FSWs) experience a disproportionately high burden of HIV. To inform future research and policy efforts on HIV prevention, this study synthesizes global evidence on HIV pre-exposure prophylaxis (PrEP) among cisgender FSWs worldwide. This scoping review was conducted using six multidisciplinary databases searched up to December 2024. Titles and abstracts, then full texts, were independently screened. Data extraction comprised i) general study characteristics (UNAIDS region, country, study type, outcomes, type of PrEP, and study years), ii) detailed data of each outcome (including PrEP knowledge, a priori acceptability – interest, and effective acceptability – use, retention and adherence). Drivers and barriers to PrEP acceptability were analyzed using an adapted conceptual framework encompassing six domains: patient characteristics, individual knowledge and perceptions, medication-related factors, social processes, structural and health system factors, and sex work characteristics. After selection, 120 eligible studies were identified, mostly conducted in Eastern and Southern Africa. PrEP knowledge was initially low but increased quickly once programs were introduced. PrEP interest was consistently high across regions, driven by perceived HIV risk and desire for self-protection. PrEP uptake, retention and adherence varied widely. Main barriers included sex work realities (i.e., unstable housing, alcohol use), social processes (i.e., stigma), individual characteristics (i.e., mobility), treatment-related characteristics (i.e., side effects), and health system challenges (i.e., clinic access constraints). Drivers included social support and reminder tools. While evidence on long-acting PrEP remained limited,

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interest was consistently high as reducing daily burden. Overall, the findings support a socio-ecological understanding of PrEP engagement among FSWs, including the sex work context as a distinct intermediary layer. They highlight the need for differentiated and structurally responsive PrEP delivery models tailored to the realities of sex work. Expanding long-acting PrEP options and improving service accessibility, community engagement, and stigma reduction strategies will be critical to strengthening HIV prevention among FSWs globally.

Introduction

Female sex workers (FSWs) are among the populations most at risk of HIV infection. In 2022, the relative risk of acquiring HIV was globally nine times higher for sex workers than in the general adult population [1]. While consistent condom use remains a key prevention strategy, the vulnerability of FSWs to HIV is driven by multiple factors [2,3]: it is not always possible for FSWs to negotiate condom use due to client refusal and coercion, including gender-based violence and sexual violence, particularly in the context of alcohol use. This vulnerability is further exacerbated by economic dependency and power imbalances in sexual transactions. Additionally, because FSWs engage in frequent sexual intercourse with multiple partners, they face an increased risk of condom failure or breakage.

To address these challenges, oral daily pre-exposure prophylaxis (PrEP) has been recommended by the World Health Organization (WHO) since 2015 for individuals at substantial risk of HIV acquisition, including FSWs [4]. In recent years, new long-acting PrEP modalities have been developed and recommended by the WHO to expand prevention options: the dapivirine vaginal ring for women in 2021 [5], followed by the injectable Cabotegravir (CAB), which protects for two months, in 2022 [6] and the injectable Lenacapavir, designed to last for six months, in 2025 [7]. Other PrEP formulations are currently being tested in various phases of clinical trials, including islatravir implants, vaginal rings [8], and gel-based PrEP. These new methods could offer FSWs more flexible and discreet prevention options, potentially improving uptake and adherence.

Two previous literature reviews have been conducted on oral PrEP use among female sex workers: one included studies published up to the end of 2018 [9], while the other focused on Africa [10]. No recent comprehensive synthesis of PrEP research among cisgender FSWs worldwide is currently available. To inform future research and policy efforts, this review therefore aims to fill this gap by synthesizing evidence of PrEP implementation among cisgender FSWs worldwide. Specifically, it examines PrEP knowledge, *a priori* and effective PrEP acceptability, socio-behavioral impacts of PrEP use, as well as identifies key drivers and barriers of PrEP implementation in FSWs.

Methods

Search strategy

We have conducted a scoping literature review following the Preferred Reporting Items for Systematic Reviews and Meta-Analysis extension for Scoping Reviews (PRISMA-ScR) guidelines [11] (S1 Table). Six databases covering medical and social

sciences literature were used: Pubmed, Scopus, SocINDEX, APA PsycArticles, APA PsycInfo, Psychology and Behavioral Sciences Collection. The search strategy combined the following terms, searched using database-specific Title and Abstract fields: ("PrEP" OR "preexposure prophylaxis" OR "pre-exposure prophylaxis") AND ("HIV" OR "AIDS") AND "sex-work*" (S1 Fig). The search included records published up to 31 December 2024.

Eligibility criteria and studies' selection

Inclusion and exclusion criteria are presented in Table 1. All manuscripts on PrEP among cisgender women who identified as FSWs were included worldwide, regardless of the type of PrEP, the study design, or the type of data collection. We focused specifically on cisgender women to maintain a clear and sufficiently homogeneous scope, as the social, structural, and healthcare contexts influencing PrEP engagement may differ from those of transgender women and other gender-diverse populations. More specifically, papers were excluded if: (1) they did not present specific or stratified results on cisgender FSWs; (2) they did not focus on PrEP; (3) they focused exclusively on biological aspects of PrEP; (4) they were not original research or were modeling studies; (5) they were not written in English or French; (6) full text was not available. Data screening was conducted on the online PICO Portal software, by a large team composed of research assistants (EM, CM, RM, HY for studies published until Dec 2022, and SAP for studies published in 2023–2024) and senior researchers (MP, VB, JL). After the removal of duplicate references, each title and abstract was independently screened by three reviewers (two research assistants and one senior researcher). The full texts of selected abstracts were then independently read by two senior researchers for final inclusion. At each of these selection steps, disagreements were resolved through discussion with a third senior researcher.

Table 1. Inclusion and exclusion criteria. Scoping review on PrEP among female sex workers.

	Inclusion Criteria	Exclusion Criteria
1. Population	- Female cisgender sex workers Worldwide	- Men - Transgender - Transactional sex (e.g., sugar daddies) - Staff/ healthcare professionals only
2. Intervention	- All types of PrEP (*oral, implant, injection, vaginal douche, vaginal rings, gel-based*)	- No data on PrEP
3. Outcomes	- Knowledge - A priori acceptability (*willingness/interest*) - Effective acceptability (*uptake/use, retention, adherence*) - Impacts *(social, epidemiological, behavioral*) - Efficacy (*on HIV incidence)*, Cost-efficacy - Costs - PrEP delivery/ Preparation of the intervention	- Biological development
5. Paper types	- Original papers other than modeling studies	- Protocols - Pre-print - Modeling studies - Editorial/opinion papers - Literature reviews - Conference abstracts - Reports that did not clearly present the following sections: Introduction, Methods, Results, Discussion
6. Languages	- French or English	- Other than French or English

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Data extraction

Data extraction was organized in two steps. First, to provide a global cartography of available data on PrEP among FSWs, each included paper was independently reviewed by two research assistants (EM, CM, RM, SAP) to extract the following information using the PICO Portal software: UNAIDS region, country, study type, outcomes, type of PrEP, and study years. Any discrepancies were resolved with one senior researcher (MP, VB or JL). Secondly, a senior researcher (MP) with the help of a junior researcher (SAP) extracted specific results focusing on each of the following outcomes using standardized Word tables: i) PrEP knowledge (S2 Table), ii) a priori PrEP acceptability - willingness or interest (S3 Table), iii) effective PrEP acceptability - use/uptake, retention, or adherence (S4 Table), iv) other outcomes of PrEP use (S5 Table). A coding system was used to classify findings as barriers or drivers (facilitators) and according to whether they were derived from quantitative or qualitative data. Standardized data extraction tools (on PICO Portal software and on Word tables) were jointly developed by the three senior researchers (MP, VB, JL).

Data analysis

A conceptual framework was first developed based on two previous conceptual frameworks on medication use and adherence [12,13]. Our conceptual framework includes five relevant domains derived from these frameworks, related to i) patients' characteristics, ii) individual knowledge and perceptions, iii) medication, iv) social processes, v) structural and health system characteristics. We added a sixth domain related to sex work characteristics. After data extraction, all drivers and barriers to a priori and effective acceptability of PrEP were analyzed and categorized within this conceptual framework.

Results

Study selection

Among the 615 published references identified through the search equation after duplicate removal, 273 were excluded based on the title and abstract, and 222 were excluded after full-text reading (Fig 1). Overall, 120 original papers were included.

Global cartography of PrEP papers on FSWs worldwide

Among the 120 included studies, n = 75 were conducted in Eastern and Southern Africa, n = 15 in Western and Central Africa, n = 2 in the Middle East and North Africa, n = 12 in Western and Central Europe and North America, n = 1 in Eastern Europe and Central Asia, n = 10 in Asia and the Pacific and n = 6 in Latin America and the Caribbean (Fig 2); one study was conducted in both Tanzania and the Dominican Republic [14].

PrEP knowledge (n=34 studies, S2 Table)

Quantitative data showed that before PrEP became widely available, few FSWs reported having heard of PrEP [15–27]. However, once PrEP was integrated into demonstration projects or national programs, PrEP knowledge increased rapidly, as especially shown in Eastern and Southern Africa [28–33]. Four qualitative studies conducted in Eastern and Southern Africa [34–36] and in Eastern Europe and Central Asia [37] highlighted some misconceptions about PrEP among FSWs, such as the confusion between PrEP and post-exposure prophylaxis or between PrEP and ARV treatment. A study conducted in South Africa emphasized the time needed for FSWs to become confident in using PrEP, given that for decades, HIV prevention messages had stressed that condoms were the only way to prevent HIV transmission [34]. Another study conducted in the USA reported that other priorities of FSWs, such as substance use or housing, could be barriers to PrEP education [38].

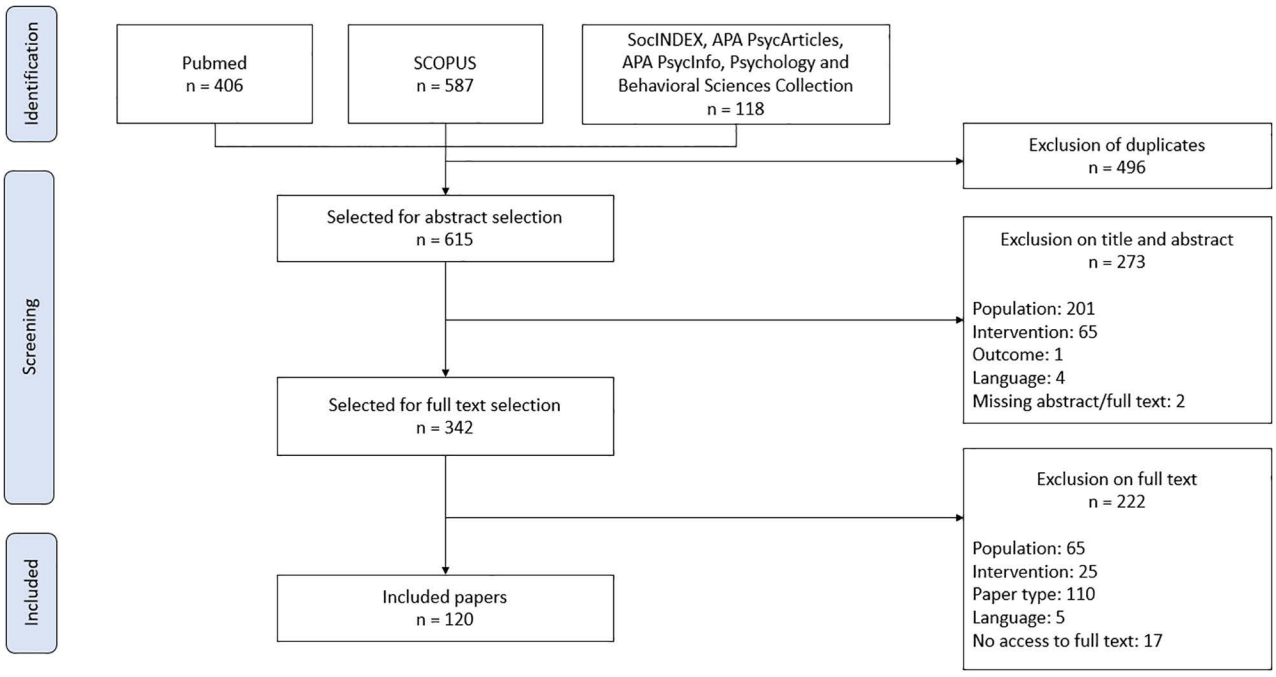


Fig 1. Flowchart of the scoping review on PrEP among female sex workers.

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PrEP a priori acceptability (willingness/interest) (n=55 studies, S3 Table)

Oral PrEP: FSWs were generally very interested in taking oral PrEP [16,22,23,25,31,39–49]. Qualitative studies showed that willingness to use PrEP was mostly related to the importance of self-care and self-love [15–53]. Oral PrEP was indeed perceived as an added protection during sex work in case of condomless sex because of client-perpetrated sexual violence [14,15,19,35,46,54,55], condom break [15,46,51,54,56], alcohol or drug consumption [35,57,58] or during sexual intercourse with regular partners with whom FSWs do not always use condoms [46,54,56,59,60]. PrEP knowledge was also found as a key determinant of PrEP interest in both quantitative and qualitative studies [21–23,29,42,58,61–63]. Other factors positively associated with high oral PrEP interest in quantitative studies included having an STI history [15,22,23,58] or HIV-risks, including recent unprotected intercourse [42,64]. Some FSWs also reported that oral PrEP could be a way to earn more money [15,35,55,65]. However, one of the main barriers to *a priori* oral PrEP acceptability included concerns regarding adherence to a daily pill, especially considering that FSWs can have unpredictable lives, which can make it difficult to maintain a regular medication routine, or in the context of alcohol use, which can affect the ability to remember daily pill-taking [14,15,26,37,40,46,51–55,57,60,62,66,67]. Other important barriers regarding PrEP willingness included fear of stigma, as PrEP can be confused with ARVs used for HIV treatment or inadvertently reveal sex work engagement [14,23,29,40,45,46,52,53,55,63,66,68,69] as well as concerns about potential side-effects [14,23,29,37,46,50–52,54,55,57,60,61,65]. In some studies, FSWs reported competing responsibilities (e.g., chores, work, rest, or children), and thus low priority regarding healthcare with no time to spend in clinics to receive PrEP [16,53,68], especially when these healthcare facilities were opened at limited times [63]. The cost of PrEP was also found as a potential perceived obstacle to PrEP [22,24,42,57,60,63].

Other forms of PrEP: Nineteen studies were conducted on long-acting PrEP a priori acceptability, including injections [14,15,26,38,43,47,56,64,65,67,70–73], implants [39,47,66,67], vaginal rings [15,19,43,47,56,64,71–73] or microarray patches [74,75]. Interest in other forms of PrEP, such as gels [43,47,65,73,76], was also investigated. As for oral PrEP, long-acting

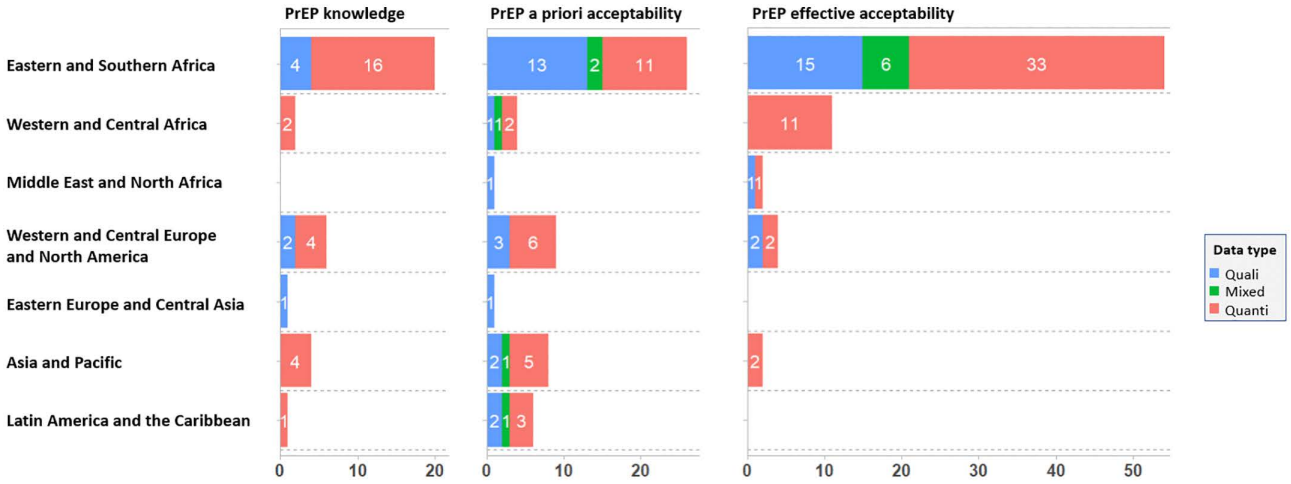


Fig 2. Cartography of original papers published on PrEP among female sex workers until the end of 2024, stratified by UNAIDS region and data type. Note: one paper can cover several outcomes with the same or different data types.

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PrEP was described as an effective way to protect against HIV [64,73]. FSWs expressed a preference for long-acting PrEP as it can alleviate the burden of daily oral PrEP [14,15,38,55,56,65–67,71,72,74,75], even if adherence challenges were perceived with the 2-month injectable PrEP requiring regular follow-up [38,56]. In studies comparing several long-acting PrEP, injections were more often preferred [43,70,73]. Injections and microarray patches were liked as they facilitate discreet use [15,56,71,75] while implants were perceived as more difficult to hide [67]. In some studies, FSWs also feared that a vaginal ring might be invasive and be felt or displaced, especially during sexual intercourse [15,56,71,72]. Other studies also highlighted some concerns regarding potential long-acting PrEP irreversible side-effects [14,15,26,67,71,75].

PrEP effective acceptability (uptake/use, retention, adherence) (n = 73 studies, S4 Table)

In all the UNAIDS regions, uptake of oral PrEP ranged from relatively low levels (<30%) [17,27,31,33,39,41,58,77–87] to over 80% [88–95]. Retention at 1 month also showed wide variability, often about or below 50% [53,83,88,96–101] to >75% [48,80,92,94,102–106]. Only a few studies showed retention >75% at 6 months [48,92,94,103,107] and 1 year >75% [48,94,95,108].

Oral PrEP adherence, most often measured as self-declared, also varied, with several studies showing rates below 50% [33,79,82,87,89,109] to >70% [84,88,94,95,110,111]. Three studies showed different PrEP adherence numbers according to how it is measured: higher if self-reported while lower in TDF concentration in blood and in pill count [84,95,106].

Regarding socio-demographic characteristics, most of the studies showed that younger individuals were more likely to initiate PrEP [28,83,108,112] while, once on PrEP, they were less likely to stay on PrEP [27,82,83,87,92,97,111,113]. PrEP use was also higher in FSWs with a higher education level [28,77,84] or who had or wanted children [49,102,114].

Perceived benefits for HIV prevention, especially in the case of condom breakage or condomless sex, was one of the most cited motivators to initiate PrEP [30,34,38,53,72,85,114–123], while using condoms was associated with high PrEP adherence [82,89,102]. Alongside, in the quantitative studies, oral PrEP uptake, retention and adherence were associated with STI history [17,58,111], longer duration of sex work [33,77,82], high number of clients [30,33,100,111] and already experienced physical violence from a client or from authorities [84,124]. In this context, a study suggested that FSWs who were on PrEP for more than one year were less worried about HIV [125].

The burden of daily PrEP was cited by FSWs as a major barrier to oral PrEP initiation [30,33,41,83,85,104,121,122], retention and adherence [56,59,92,109,110,115,122,123,126], especially in the context of alcohol use, which can interfere with remembering

to take the pills daily [59,72,82,118,122,126], or lack of housing, which can make it difficult to store medication safely [38]. Fear of stigma, especially because of the confusion between PrEP and antiretroviral treatment, either in sex work sites or when FSWs went back home, was also an important reason for FSWs to not start oral PrEP [17,30,33,34,36,41,72,117,118,121] or to stop it [30,33,56,83,109,110,115,117,122,123]. In this context, high mobility of FSWs was an obstacle to oral PrEP retention and adherence [99,104,110,113,117,118]. Fear of side effects could also prevent PrEP initiation [17,30,38,41,104,117,121,122,127], while experiencing side effects (e.g., headaches, gastrointestinal symptoms such as stomach pain, nausea, vomiting, bloating and diarrhoea, nightmares, back pain, menstrual changes, swelling, sweating, loss of appetite, weight loss and fatigue) was found as a barrier to PrEP continuation [30,33,49,53,56,59,72,83,95,99,104,109,110,115,117,118,121–123,126,128].

Challenges in PrEP use were also related to difficulties in accessing health facilities where PrEP was delivered, because of distance and transportation costs [17,33,72,115,123], high number of appointments required before PrEP initiation, and time for clinic follow-up visits, with sometimes clinic hours conflicting with work schedules [83,121,127] or being unfamiliar with the clinic delivery schedule [115,117].

Encouragement and support from others (family, friends, colleagues) were facilitators for FSWs to initiate and stay on PrEP [30,34,84,89,104,114,118,121]. In addition, several remembered strategies to take pills, such as phone alarms, placing the pill bottle in a routine location, or taking PrEP alongside oral contraception, were identified as helping FSWs to adhere to oral PrEP [34,104,118,123]. The use of SMS support or mHealth applications also increased retention in PrEP programs [96,98]. Yet, communication issues, including phone number changes, intermittent phone access [117,128], or housing instability [128] could limit PrEP retention strategies through phones or peer navigators (i.e., trained peers with shared community experience who support FSWs in accessing PrEP).

Only one study explored facilitators and barriers to injectable CAB use [126]: even if some FSWs complained about some pain, they mostly tolerated it and found it more convenient than a daily oral regimen as it fits better into women's lifestyles, especially when traveling or having unpredictable work. FSWs also appreciated the long-lasting protective effect of the injectable CAB and found it more discreet, allowing them to maintain privacy with their sexual clients or friends and family.

Other outcomes of PrEP use (n=7 studies, S5 Table)

Seven studies have explored the impact of PrEP use on sexual risks. None of these studies found evidence of increased sexual risk-taking attributable to PrEP use, based on either self-reported behaviors or biological measurements [94,95,129–131], nor an increase in sexually transmitted infections [95,130]. However, one paper underlined that PrEP-related stigma was relatively high among FSWs on PrEP [132].

Discussion

This scoping review provides a comprehensive global synthesis of PrEP research among cisgender FSWs, spanning all UNAIDS regions. Compared to the extensive literature on PrEP among men who have sex with men (with 2,700 references identified on Pubmed by the end of 2024), the overall literature on PrEP among FSWs is relatively scarce. Most of the studies were conducted in Eastern and Southern Africa, while the literature remains scarce in the other UNAIDS regions, particularly in the Middle East and North Africa and Eastern Europe and Central Asia. In these regions, where sex work can be highly criminalized or severely punished, leading to FSWs being at greater risk of HIV [133–135], research access and funding may be limited.

Once knowledge was established, *a priori* acceptability of PrEP (interest and willingness) was consistently high across settings, yet effective engagement (uptake, retention and adherence) remained suboptimal. The determinants of oral PrEP engagement were numerous and occurred at various levels (Fig 3). Taken together, these findings support a socio-ecological understanding of PrEP engagement among FSWs that is adapted to the context. While socio-ecological models typically distinguish between the individual, interpersonal, and structural levels, our findings highlight the importance of also considering the sex work context as a distinct intermediary layer.

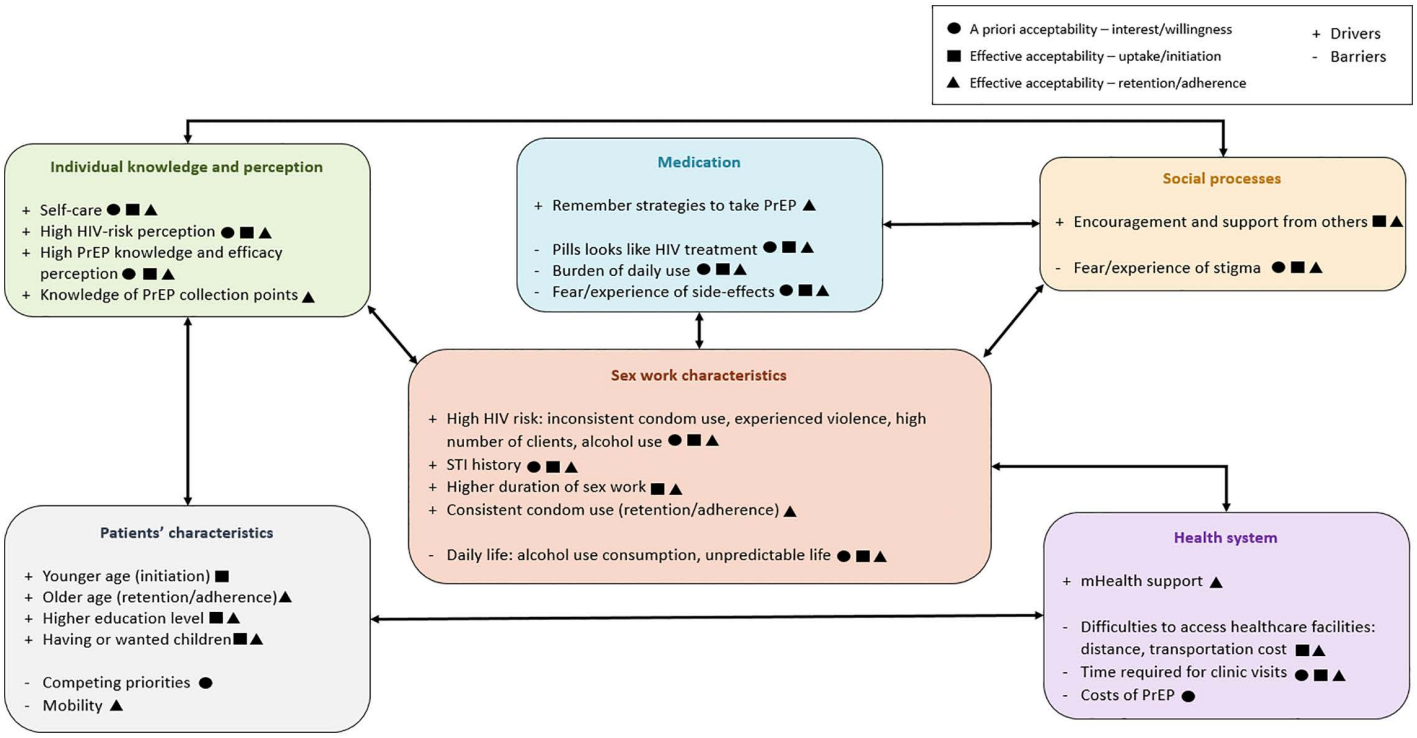


Fig 3. Drivers and barriers to oral PrEP engagement among female sex workers.

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Perceived HIV risk due to the realities of sex work – particularly in the context of a high number of clients, condom breakage, client-perpetrated violence, and substance use – was one of the main motivators for PrEP *a priori* and effective acceptability. In this context, narratives of self-care and self-love were particularly salient in qualitative studies, presenting PrEP as an empowering prevention strategy. Individual knowledge and perception of PrEP, especially with regard to its efficacy, increased willingness to use PrEP. Similarly, PrEP acceptability was greater among FSWs with a higher level of education. These results highlight the need to reinforce PrEP awareness among FSWs [14,136–138]. It would be important to include information on how to manage side effects [136], as these could also strongly influence PrEP engagement and retention, as shown in studies included in this scoping review.

However, these individual motivations could be outweighed by social determinants. Stigma could decrease PrEP acceptability, from initial willingness to long-term adherence. In the included studies, FSWs may fear being perceived as HIV-positive if there is confusion between PrEP and HIV treatment, or they may be concerned that taking PrEP could lead to disclosure of their sex work activity. Conversely, encouragement and support from others could facilitate PrEP engagement. These results highlight the need for community-level education strategies and individualized support to destigmatize PrEP [14,136,137]. Several studies also underlined that PrEP implementation should rely on friendly services, with trusted providers who understand their needs and remain non-judgmental [35,37,50,54,56,62,68,121,138], while also ensuring privacy and confidentiality [50,71].

Several structural determinants related to both sex work and health system characteristics also posed challenges to PrEP use and retention. Several studies included in the scoping review reported that FSWs experienced constraints in accessing clinics, such as clinic opening hours conflicting with work schedules or other competing priorities, transportation costs, and the need to attend multiple pre-initiation visits. In this context, improving accessibility and flexibility of services,

including differentiated service delivery models that adapt where, when, and how PrEP is delivered to the needs and preferences of FSWs, may help address these barriers. This could include outreach or easily accessible services, short waiting times, and convenient opening hours [16,35,54,68,71,121,138]. In addition, integrating PrEP into existing services, delivered alongside sexual and reproductive health services (e.g., family planning, HIV testing, STI care, and cervical cancer screening) or within one-stop-shop models, could increase FSWs' motivation to access care [16,35,68,138].

FSWs also faced the burden of the daily oral PrEP regimen, which does not align with the realities of sex work and their unpredictable schedules. This was particularly challenging in contexts involving alcohol use, unstable housing, or frequent travel outside of sex work sites. Digital adherence tools and reminder strategies have shown promise [139], but may be limited in contexts of housing instability or disrupted phone access. In this context, although research on long-acting PrEP remains limited among FSWs, the available studies suggest a strong interest in these methods, particularly injectable PrEP [140]. Such HIV prevention methods are perceived as reducing the daily pill burden, enhancing discretion, and potentially being better suited to unpredictable schedules and mobility. These potential advantages could be further enhanced when long-acting PrEP is delivered through differentiated service delivery models adapted to FSWs' needs, for example through outreach or community-based services that reduce the need for frequent clinic visits. However, although these new forms of PrEP have only recently been recommended [5–7], evidence remains scarce regarding their uptake, retention, and real-world implementation among FSWs.

Importantly, the review found no evidence of an increase in sexual risk-taking or STI acquisition associated with PrEP use. These findings are consistent with those of other studies conducted among different populations [141] and contribute to the ongoing debate about behavioral disinhibition. However, the available evidence remains insufficient to exclude risk compensation in all contexts or to draw conclusions about broader population-level trends in bacterial STI incidence.

All these findings are broadly consistent with those reported among other key populations, as shown in a recent narrative review [142] identifying facilitators and barriers to oral PrEP uptake at the individual level (e.g., awareness, HIV risk perception, and competing priorities), interpersonal and community levels (e.g., stigma, provider-client interactions, and peer and community support), health system and institutional levels (e.g., opening hours), structural and policy levels (e.g., poverty and economic hardship, gender inequality, and criminalization). However, our findings also highlight barriers that may be particularly relevant to FSWs, including the unpredictability and mobility associated with sex work, concerns about disclosure of sex work, and the need for services adapted to their working conditions. These findings underscore the importance of developing PrEP delivery approaches that are responsive to the specific social and structural contexts of each key population.

This review has several strengths. First, the use of multiple multidisciplinary bibliographic databases enabled broad coverage of relevant studies across various disciplines. Additionally, the independent screening process minimized bias in study selection. Second, it integrates both quantitative and qualitative evidence to allow for a nuanced understanding of the determinants of PrEP acceptability. Third, the resulting conceptual framework reflects a comprehensive synthesis of the available evidence on PrEP among cisgender FSWs worldwide through December 2024. However, subsequent research has been published since the search was conducted and may have further enriched or modified these findings, highlighting the need for continued monitoring of the evolving evidence on PrEP among sex workers.

This review has other limitations. As a scoping review, we did not formally assess the methodological quality or risk of bias of the included studies. This may affect the robustness and reliability of some findings and make it more difficult to assess the strength of the available evidence. Furthermore, while the screening process was conducted independently, a single senior reviewer extracted specific results focusing on each outcome, which may have introduced subjectivity. Heterogeneity in adherence measurement and program contexts limited comparability. Lastly, publication bias remains a potential concern, as the results of some PrEP implementation projects, particularly those conducted in programs or non-research settings, may not have been published. The geographical concentration of the evidence in Eastern and Southern Africa may also limit the transferability of our findings to other settings. The organization and working conditions

of sex work, healthcare systems, access to HIV prevention services, and the availability and implementation of PrEP may differ substantially across regions. Consequently, determinants of PrEP engagement and the feasibility or acceptability of specific service delivery models identified in the included studies may not be directly applicable to FSWs in other contexts.

In conclusion, this scoping review revealed that, although there is significant interest in PrEP, sustained engagement with oral PrEP is influenced by various constraints related to sex work, social processes, and the healthcare system. This scoping review also highlights several research priorities. First, research should expand beyond the geographical concentration of existing evidence in Eastern and Southern Africa, particularly towards regions where evidence remains scarce, including the Middle East and North Africa and Eastern Europe and Central Asia. Second, as biomedical HIV prevention research continues to advance, efforts should focus on addressing the specific challenges that FSWs face in preventing HIV and identifying the most effective, suitable, and equitable HIV prevention strategies, including long-acting and other non-daily PrEP options. Research should determine whether these approaches can overcome barriers associated with daily pill-taking, mobility, unstable housing, unpredictable schedules, and concerns about privacy, and identify which prevention options are preferred by different groups of FSWs. Finally, future research should include more longitudinal and implementation studies to improve sustained PrEP engagement under real-world conditions. Such studies should evaluate differentiated service delivery models and assess how PrEP delivery can be better aligned with the lived realities of sex work, including mobility, stigma, and constraints to service access. Together, these priorities can help translate the high interest in PrEP among FSWs into sustained HIV prevention impact.

Supporting information

S1 Fig. Research equations. Scoping review on PrEP among female sex workers.
(PNG)

S1 Table. PRISMA-ScR checklist. [Scoping review on PrEP among female sex workers - until end 2024].
(DOCX)

S2 Table. PrEP knowledge. [Scoping review on PrEP among female sex workers - until end 2024].
(DOCX)

S3 Table. PrEP a priori acceptability [Scoping review on PrEP among female sex workers - until end 2024].
(DOCX)

S4 Table. PrEP effective acceptability [Scoping review on PrEP among female sex workers - until end 2024].
(DOCX)

S5 Table. Other outcomes of PrEP use [Scoping review on PrEP among female sex workers - until end 2024].
(DOCX)

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