



Health-seeking behavior of female sex workers: a systematic review

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Abstract

Aim Female sex workers (FSWs) are particularly susceptible to sexual and reproductive health (SRH) problems due to their occupation. Given that their health needs are often ignored, a review was undertaken to identify the nature, factors, and experiences associated with health-seeking behavior of FSWs worldwide.

Subject and methods We searched four electronic databases (EBSCOhost, ProQuest, Pubmed, and Scopus), along with a manual search in Google Scholar and the citations from retrieved articles on health-seeking behavior of female sex workers. Articles that were peer-reviewed, presented in full-text, written in English language, and published between August 2012 and July 2022, were considered for this study. The review was carried out following the Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) guidelines.

Results The database and manual search yielded 334 studies. Seventeen papers that met our inclusion criteria were included in our review. Our qualitative synthesis resulted in five themes: sexual and reproductive health (SRH) issues, lack of access and awareness, social stigma, non-SRH matters, and drugs, violence, and abuse.

Conclusion Findings of this review demonstrated that the FSWs faced challenges seeking both SRH and general health needs. They were often victims of social stigma and violence. A number of socioeconomic and cultural factors shaped their experience with regard to healthcare access. Special attention is needed to promote awareness and access to safe healthcare services for FSWs in the future to improve their situation.

Keywords Female sex workers (FSWs); Health-seeking behavior · Healthcare access · Social stigma · Sexual and reproductive health · Systematic review

Introduction

Female sex workers (FSWs) are a socially marginalized group who survive by selling sex as a commodity. A recent report mentioned that there are about 40 million full-time FSWs across the globe (Sawicki et al. 2019), and this large

number of FSWs are highly vulnerable to preventable diseases (Islam and Smyth 2012). The FSWs are primarily susceptible to HIV/AIDS and other sexually transmitted diseases (STDs) such as gonorrhea, chlamydia, syphilis, etc., due to the nature of their occupation. Moreover, the FSWs have become even more vulnerable currently (Wirawan et al. 2022) as the healthcare issues for FSWs have been compounded by the consequences arising from the COVID-19 pandemic. Although safe and accessible health promotion is essential (Singer et al. 2020), there is evidence to suggest accessing healthcare services has become more difficult for FSWs given that the ongoing COVID-19 pandemic has added a new degree to the problem (Gichuna et al. 2020; Platt et al. 2020).

Discrimination against the FSWs, or women in prostitution (WIP), is a global phenomenon (King et al. 2013; Lyons et al. 2020). Studies from lower and middle-income countries largely report the prevalence of deprivation in this marginalized social group (Sutherland et al. 2011; Gurnani

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et al. 2011). There have been policy interventions to address discrimination and stigma related to FSW, but there is still a big gap to be addressed (Stangl et al. 2013). Different socio-cultural factors such as stigma, marginalization, and social inequality have been found to be associated with the negative experiences of FSWs in accessing health care services (Benoit and Unsworth 2022). These issues are often structurally rooted in suppression and social exclusion (Link and Phelan 2014). Whether structural or individual, these factors affect the overall physical, mental, and social well-being of FSWs. Since accessing healthcare services has now become more difficult due to lockdowns and social distancing, this has most probably affected the health-seeking behavior of this group.

Accessing necessary health services has always been difficult for the FSWs (Sanders 2020). There are different concerns associated with their health-seeking behavior, or in other words, their actions/inactions to prevent health issues and/or monitor existing health problems. While it is evident that there have been behavioral changes in populations in recent times (Usher et al. 2020), the nature, extent, and factors related to these changes are somewhat unknown. There may be a number of socioeconomic, cultural, and physical dimensions associated with this issue. To understand the nature of health-seeking behavior of FSWs, we need to identify these factors associated with the actions related to preventive health care. Although important, no systematic reviews on this topic have been undertaken so far, and given the context, we aim to examine the health-seeking behavior of FSWs through a systematic literature review to address the knowledge gaps in this regard. We investigated the patterns of health-seeking behavior to identify the associated factors and experiences.

Research questions

This paper addresses the following research questions based on existing evidence.

1. What is the health-seeking behavior of FSWs in the past 10 years?
2. Which factors and experiences are associated with the health-seeking behavior of FSWs?

Methods

Protocol and registration

This systematic review was conducted following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines, and a PRISMA checklist is attached to this paper as a supplementary file (See Supplementary file S1). The Cochrane Handbook for the systematic review of interventions and the Joanna Briggs Institute (JBI) reviewer's manual were used for reference to develop the protocol and to conduct the review. The protocol was registered in the International Prospective Registry of Systematic Reviews (PROSPERO) (registration number CRD42022351427).

Eligibility criteria

The empirical, peer-reviewed, full-text research articles focusing on health-seeking behavior of FSWs published in the last 10 years only (August 1, 2012 to July 31, 2022) were considered for this study. All the three types of studies — qualitative, quantitative, and mixed-method studies — were eligible for inclusion. A brief summary of the eligibility criteria is presented in the table below (see Table 1).

Data sources

Studies focusing on health-seeking behavior of female sex workers were searched in four major online databases, i.e., EBSCOhost, ProQuest, and Pubmed, Scopus in consultation with a senior librarian. Although much of the literature on our study topic is covered by these databases, we conducted

Table 1 Inclusion and exclusion criteria

Category	Inclusion criteria	Exclusion criteria
Type of data	Original research papers	Reviews, discursive, editorial, features, opinions, government and non-government reports, unpublished works etc.
Language	Articles written in English language	Articles written in other languages except English
Review and access	Peer-reviewed, full-text articles	Non-peer reviewed, partial articles
Timeframe	Studies published in the last 10 years (between August 1, 2012 and July 31, 2022)	Studies published before August 1, 2012
Concentration	Studies focusing on health-seeking behavior of the female sex workers	Studies on general population, Men who have sex with men (MSM), Heterosexual male sex workers (HMSW), Lesbian, Gay, Bisexual, Transgender, Queer or Questioning+ (LGBTQ+) etc. and not focusing HSB or related issues

an additional manual search in Google Scholar, Google and the university library to cover the missing items for studies that were not available on the aforementioned databases. References from the searched literature were also used as a potential generator to consider further studies.

Search strategy

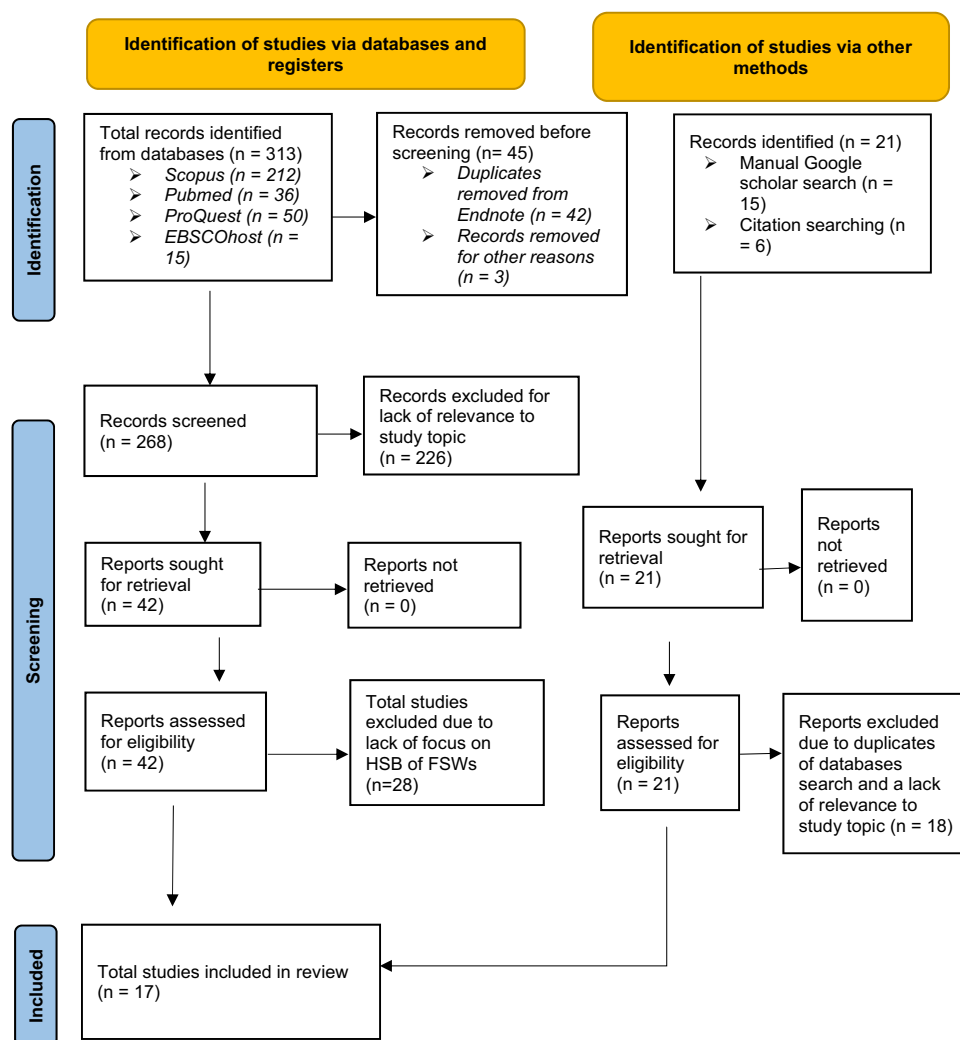
The databases and search terms were initially developed by the first author before consultation occurred with the librarian (University of New England, Australia), and later confirmed by all authors. We used the Population, Phenomenon of Interest, and Context (PICO) framework to identify the search terms where Population was (“*Sex workers*”) OR (“*Women in prostitution*”) OR (“*Prostitutes*”) OR (“*Prostitution*”) OR (“*Sex industry*”), Phenomenon of Interest was (“*Health seeking behavior*”) OR (“*Treatment seeking behavior*”) OR (“*Care seeking behavior*”) OR (“*Help seeking behavior*”), and the Context was global literature in the

past 10 years (stated above). We used both Boolean operators and MeSH terms to maximize the potentially relevant outcomes. Restrictions including date range, language, peer reviews, and type of studies were set to filter the results. No country restrictions were made. In addition, we searched Google and Google Scholar with the same restrictions, using the first ten pages of search results to identify literature items that meet the inclusion criteria for this literature review (See Supplementary file S2).

Selection process and data extraction

The first reviewer conducted the primary search in selected databases as well as searching in Google and Google Scholar using the predetermined search terms. The first author completed the initial screening after which independent cross-checks were undertaken by a second reviewer and confirmed by the research team to ensure no important literature was missed. The selection involved several phases

Fig. 1 Prisma flow diagram



displayed through the PRISMA flow diagram (see Fig. 1). The search results from the selected databases were recorded and imported to Endnote X9 for the convenience of study selection and data management. The titles and abstracts were screened first to identify relevant papers prior to full-text screening. Once identified, the first author went through the full papers to finalize the articles to be included. All authors were involved in the discussion of any inconsistencies identified during the process. The data were extracted from the articles primarily by the first reviewer using a data extraction tool following the Joanna Briggs Institute manual (2014 edition). The extracted information was confirmed by the second reviewer and later confirmed by the research team. The form includes the author name(s), publication year, study title, study objective(s), study design and methods, and study outcome(s) (see Table 1).

Risk of bias/quality assessment

The quality of all included studies were assessed by the first reviewer using the Mixed Method Appraisal Tool (MMAT version 2018), and checked by rest of the team. This tool is widely used to assess the quality or the risk of bias of included studies in systematic reviews in public health research. It assesses five types of empirical data-based studies including qualitative studies, randomized control trials, non-randomized research, descriptive quantitative studies, and mixed-method research. MMAT includes two common screening questions for all the types of studies mentioned as well as five questions for each individual type. There are three response options —yes, no, and can't tell — along with an option to add comments for each question (Hong et al. 2018). A positive response (yes) gets one point, and a study can obtain a score of seven points for all the responses, including the two common screening questions. Based on these response outcomes, the quality of the included studies was classified into three categories, i.e., high quality (HQ) (6–7 points), medium quality (MQ) (4–5 points), and low quality (LQ) (1–3 points) (Fatema et al. 2021). The detailed appraisal outcome was added as a supplementary file with the systematic review paper.

Data synthesis and analysis

The data were thematically synthesized for this study (Thomas and Harden 2008). This method allows researchers to produce efficient descriptive results that can be effectively used in practice and policy. We coded the data first by going through the included articles line-by-line. This helped with conceptualizing the data through reviewing and digging deeper into the findings. The descriptive schemes derived from the included studies were identified primarily for further analysis of the nature, factors, and experiences

associated with the health-seeking behaviour of FSWs to address the objectives of this research. Five themes — i.e., sexual and reproductive health issues, lack of access and awareness, social stigma, non-SRH matters, and drugs, violence, and abuse — were finalized through this process upon the consensus of all the team members.

Results

Description of the included studies

A total of 334 studies were identified through the database search ($n = 313$) and the manual search ($n = 21$). After removing 45 duplicates and annexes, leaving 289 articles for screening, 17 articles were eligible for inclusion. Most of the studies included in this review focused on sexual and reproductive health (SRH) issues ($n = 9$) followed by lack of access and awareness ($n = 6$), social stigma ($n = 5$), non-SRH problems ($n = 4$), and drugs, violence, and abuse ($n = 3$) as key features of health-seeking behaviors of FSWs. However, many of the issues overlapped in a number of the included studies. The majority of the studies were conducted in Africa [Uganda, Kenya, Ethiopia, Mozambique, South Africa; ($n = 7$)] followed by Asia [China, India, Bangladesh, and Myanmar; ($n = 6$)]. The rest were carried out in Europe [UK and Switzerland; ($n = 2$)], USA ($n = 2$), and Brazil ($n = 1$). Most of the studies used quantitative design ($n = 7$), (qualitative design $n = 6$; mixed method designs $n = 4$). All included studies had FSWs as key participants ($n = 17$) while MSM ($n = 1$), heterosexual male sex workers ($n = 1$), male queer and transgender ($n = 1$), and healthcare providers ($n = 1$) were additional participants in four ($n = 4$) studies. The characteristics of all the included studies are presented in Table 2.

Quality of the included studies

Following the Mixed Method Appraisal Tool (MMAT), all the studies were assessed and rated as high quality (HQ) except the mixed-method study by Htut et al. (2018), which was considered as medium quality for lack of effective integration of the study components and adherence to the quality criteria of each method involved (data collection, tools and techniques, analysis, etc.). The summary of the MMAT appraisal of the included studies is available as a supplementary file (S3).

Themes identified

We identified five themes after reviewing all the included studies. These are sexual and reproductive health issues, lack of access and awareness, social stigma, non-SRH matters,

Table 2 Characteristics of the selected studies

Reference	Location	Aim of the study	Study population	Sample size	Study design/method	Quality
Alam et al. (2021)	Bangladesh	To investigate the pattern of condom use, STI symptoms, and care-seeking of FSWs	Female sex workers	Quantitative: 1228, qualitative: 50	Cross-sectional/ Mixed method	HQ
Ameyan et al. (2015)	Ethiopia	To identify the barriers to utilising HIV testing and counselling facilities by FSWs	Female sex workers	31	Qualitative	HQ
Dourado et al. (2019)	Brazil	To investigate how non-disclosure due to stigma affects the health-care utilization by FSWs	Female sex workers	4245	Cross-sectional/ quantitative	HQ
Gichuna et al. (2020)	Kenya	To investigate the situation of healthcare access for FSWs during the COVID-19 pandemic	Female sex workers, healthcare providers	132	Qualitative	HQ
Hong et al. (2013)	China	To analyse the HPV and cervical cancer related awareness, knowledge, and behavior of FSWs	Female sex workers	360	Quantitative	HQ
Htut et al. (2018)	Myanmar	To identify the health-seeking behavior of young key populations regarding HIV/STI and reproductive health	Female sex workers, men who have sex with men	Quantitative: 242, qualitative: 22	Cross-sectional/ mixed method study	MQ
Lafort et al. (2016)	India, Kenya, Mozambique, and South Africa	To identify the factors associated with reproductive healthcare related HSB of the FSWs	Female sex workers	1566	Quantitative	HQ
Mastrocola et al. (2015)	UK	To explore the situation of access to health care for their street-based FSWs with long-term conditions	Street-based female sex workers	16	Qualitative	HQ
Muhindo et al. (2020)	Uganda	To know the HIV and syphilis screening practices of the heterosexual MSWs and MSWs	Heterosexual male and female sex workers	340	Quantitative	HQ
Muhindo et al. (2021)	Uganda	To identify the barriers and facilitators of screening HIV and syphilis	Female sex workers	48	Qualitative	HQ
Parmley et al. (2019)	South Africa	To identify the barriers to ANC services for FSWs	Female sex workers	Quantitative: 410, qualitative: 30	Mixed method	HQ
Prakash et al. (2016)	India	To analyse the physical violence induced STI and HSB of the FSWs	Female sex workers	2785	Quantitative	HQ
Singer et al. (2021)	USA	To inform the community empowerment interventions for FSWs	Sex workers including female, male queer, transgender	21	Qualitative	HQ

Table 2 (continued)

Reference	Location	Aim of the study	Study population	Sample size	Study design/method	Quality
Varga and Surratt (2014)	USA	To predicting the healthcare utilization pattern of black, street-based FSWs	Black, street-based female sex workers	546	Quantitative	HQ
Wahed et al. (2017)	Bangladesh	To identify the barriers to access RHS services for FSWs	Female sex workers	Quantitative: 731, qualitative: 23	Mixed method	HQ
Wanyenze et al. (2017)	Uganda	To identify the barriers and opportunities to HIV service access for FSWs	Female sex workers	190	Qualitative	HQ
Zehnder et al. (2019)	Switzerland	To identify whether social stigma deters access to mental healthcare services for FSWs	Female sex workers	60	Quantitative	HQ

and drugs, violence, and abuse. Results from the themes are described below.

Sexual and reproductive health issues

Most of the studies included in our systematic review on the health-seeking behavior of FSWs involved sexual and reproductive health (SRH) issues, particularly HIV/STI-related problems. These studies largely focused on HIV/AIDS and STI treatment/screening, and the associated barriers. Challenges accessing healthcare services (Htut et al. 2018; Muhindo et al. 2021) and delay in seeking treatment as a result (Parmley et al. 2019) were reported by two papers. A study from Ethiopia reported low use of healthcare services by the FSWs (Ameyan et al. 2015) while another study from China reported poor use of SRH screening by the FSWs (Hong et al. 2013). The latter indicated that only 17% had ever tested for HIV, of whom only 15.3% of the 360 participants ever reported having a pap smear test. A recent mixed-method study from Bangladesh however reported frequent health care-seeking behavior despite the poor knowledge with regard to STIs among the FSWs (Alam et al. 2021). The study noted that 91.8% of FSWs with STI symptoms frequently visited the healthcare drop-in centers. Three other recent studies included in this review reported frequent use of healthcare services by FSWs (Muhindo et al. 2021; Dourado et al. 2019; Lafort et al. 2016). Muhindo et al. (2021) also indicated that HIV/STI screening behavior of the FSWs is associated with education, willingness, normative perceptions, and self-efficacy, while choice of care providers was found to be related to proximity to healthcare center, common practice, and cost of care by another study (Lafort et al. 2016). Dourado et al. (2019) in their study from Brazil also reported that FSWs visited public healthcare services routinely.

Lack of access and awareness

Ten of the 18 studies reported findings around lack of access and awareness. The articles of Alam et al. (2021), Wahed et al. (2017), Mastrocola et al. (2015), Wanyenze et al. (2017) reported that lack of access to healthcare services for FSWs was a common phenomenon. Findings of a study from Bangladesh revealed that half of the participants involved in the study reported facing barriers when seeking healthcare services (Wahed et al. 2017). Economic difficulties (72%), guilt (52.3%), unwillingness (39.9%) and unfriendly behavior of the care provider (24.4%), and proximity to healthcare center (16.9%) were identified as key barriers. Furthermore, Gichuna et al.'s (2020) study indicated that accessing healthcare services for the FSWs had become more difficult amidst the COVID-19 pandemic. This happened due to the different

restrictions imposed by governments as a strategy to reduce the spread of COVID-19.

Access to healthcare services was affected by individual, social, structural, and policy-related barriers (Wanyenze et al. 2017). This study summarized that while individual factors included lack of awareness, fear and misconceptions, structural and policy barriers involved convenient timing, condom distribution and supply, lubricants access, HIV pre- and post-exposure prophylaxis, and violence support for the FSWs. Discrimination (Ameyan et al. 2015), self-management practices (Singer et al. 2021), previous experience (Parmley et al. 2019), individual and social stigma, perceived severity, and misconceptions concerning paucity of facilities (Muhindo et al. 2021) were all found to be linked to healthcare access for FSWs. Although some FSWs mentioned a lack of access to information (Wanyenze et al. 2017), a reluctance in asking health-related queries was also reported (Htut et al. 2018).

Social stigma

Eight of the 18 studies report findings for stigmatization. Singer et al. (2021), Alam et al. (2021), Muhindo et al. (2020), Zehnder et al. (2019) noted FSWs experienced stigmatization as one of the significant factors affecting health service use. As there is a common public perception about the link between sex work and HIV/STDs, both interpersonal and individual stigma affected the healthcare choices for many FSWs (Muhindo et al. 2021). A study conducted in four countries (India, Kenya, Mozambique, and South Africa) concluded that social stigma deterred the FSWs from accessing necessary healthcare services (Lafort et al. 2016). Zehnder et al.'s (2019) study also indicated a similar finding, reporting that stigma resulted in negative mental health consequences for FSWs.

Dourado et al. (2019) from Brazil noted that around one-fifth of the participants reported having faced discrimination in health services due to stigma, and only one-fourth disclosed their professional status to healthcare workers out of the 4245 FSWs who participated. Results of multivariate logistic analysis from this study showed that apart from stigma, age, education, affiliation with a non-governmental organization (NGO), and type of healthcare accessed were associated with the health-seeking behavior of FSWs. Stigma and stereotyping also affected the healthcare choice for many (Zehnder et al. 2019) as FSWs shared their experience of frequent maltreatment from healthcare service providers (Parmley et al. 2019). As a result, FSWs were often hesitant to access healthcare because of the fear of social stigma (Wanyenze et al. 2017).

Non-SRH matters

Seven of the 18 studies reported findings on non-SRH matters. The FSWs faced difficulty in accessing healthcare for

different health problems (Gichuna et al. 2020; Zehnder et al. 2019; Mastrocola et al. 2015; Varga and Surratt 2014). A Chinese study reported that only 9% of its total participants ($n = 360$) would go for regular health check-ups (Hong et al. 2013), while another study from Myanmar showed that less than half (40%) of its total FSW participants ($n = 123$) had visited drop-in-centers in the previous 6 months (Htut et al. 2018). Age and the type of sex work was associated with their medical check-up behavior in the latter report (Htut et al. 2018). In another study, Mastrocola et al. (2015) observed that multiple health problems were common for the street-based FSWs in the United Kingdom; accessing healthcare services was difficult, and FSWs were mostly unhappy with the support provided by general practitioners.

Inconsistent use of healthcare services was common for the FSWs, and having a consistent and reliable healthcare source and self-assessment of health influenced their care-seeking behavior (Varga and Surratt 2014). Apart from the physical health problems, Zehnder et al. (2019) revealed that mental health issues were high among FSWs. The study concluded that social stigma, perceived need for treatment, perceived presence of illness, and age were associated with mental healthcare-seeking behavior, while a different study depicted waiting times, perceived quality of care, privacy, and amicable healthcare staffs as the deciding factors choosing healthcare services for FSWs (Lafort et al. 2016).

Drugs, violence, and abuse

Eight of the 18 studies reported findings for this theme. FSWs using harmful drugs and being victims of violence and abuse was reported in some cases (Alam et al. 2021; Gichuna et al. 2020; Parmley et al. 2019; Varga and Surratt 2014). Many of the FSWs consumed alcohol and drugs during their pregnancy (Parmley et al. 2019) and rejected the use of condoms when they were under the influence of drugs (Alam et al. 2021). These issues increased their health risks, yet a study found that FSWs who took drugs actually visited healthcare providers more frequently (Varga and Surratt 2014). In addition, Wanyenze et al. (2017) noted difficulty accessing useful drugs such as antiretroviral medicine for the FSWs who were HIV-positive.

The FSWs were commonly victims of sexual and gender-based violence (Gichuna et al. 2020). A recent study from Brazil accounted that the FSWs' human rights were being violated as they fell prey to frequent violence and abuse (Dourado et al. 2019). The FSWs were often subjected to physical abuse and punishment if they did not agree with clients with regard to the use of condoms or other any other acts that involved health risks (Parmley et al. 2019). A study indicated that although violence against FSWs increased the risk of HIV/STIs, it also reduced their treatment-seeking

behavior (Prakash et al. 2016). Another study reported that FSWs had limited information about certain services, especially with regard to the post-violence support (Wanyenze et al. 2017).

Discussion

Health-seeking behavior predominantly affects the health outcomes and well-being of women involved in prostitution, now more often referred to as sex work. Our study aimed to explore the nature of health-seeking behavior, its associated factors, and the experiences of FSWs through a systematic review. We noted that the majority of papers included in our analysis focused mainly on the sexual and reproductive health issues of the FSWs. This is due to the fact that FSWs were highly susceptible to HIV/AIDS and STIs because of the nature of their job (Nyblade et al. 2017; Saggurti et al. 2013). Most of the studies included in our review were conducted in African and Asian countries. Existing literature also suggests a significantly higher prevalence of HIV/AIDS and STIs in these regions (González-Alcaide et al. 2020; Streatfield et al. 2014).

Our synthesis of the included papers shows that HIV/AIDS and STI-related care-seeking behavior have been a major concern for FSWs. The FSWs reported a lot of challenges accessing healthcare services to treat these particular health problems (Htut et al. 2018), which appears to be consistent with some available evidence (Potter et al. 2022; Sawicki et al. 2019). Education, distance to healthcare centers, financial capacity, and common beliefs and practices were the deciding factors in this regard (Dourado et al. 2019; Wahed et al. 2017), which resulted in low utilization of SRH services by FSWs (Ameyan et al. 2015; Hong et al. 2013). On the other hand, some studies reported a higher use of SRH services by female sex workers (Alam et al. 2021; Muhindo et al. 2021). This appears to be related to the healthcare programs being focused on FSWs, socioeconomic and cultural setup of the SRHs, and the contexts of the specific studies. However, the situation apparently aggravated during the COVID-19 pandemic (Gichuna et al. 2020). The pandemic-related isolation requirements, lockdowns and social distancing, and closure of health services made access to public healthcare more difficult for all. Several studies that were not included in this review reported that the sex workers have been struggling to access the necessary healthcare services in recent times (Benoit 2020; Platt et al. 2020; Janyam et al. 2020), related to these issues.

The profession of sex work involves a significant amount of social stigma and stereotyping. A number of studies included in our review identified social stigma as one of the influencing factors regarding healthcare-seeking behavior of FSWs. These results are in line with the previous findings

of several studies (Singer et al. 2021; Treloar et al. 2021; Lyons et al. 2020) which reported that FSWs experienced discrimination and maltreatment when accessing healthcare services due to stigma which resulted in hesitation and delays in seeking care. A large number of FSWs also experienced mental health problems due to stigma-related factors (Zehnder et al. 2019). Although important, specialized mental healthcare services to help people manage and cope with the challenges associated with stigma and discrimination are very rare. Against this backdrop, Sawicki et al. (2019) suggest that to ensure de-stigmatization for the future, a culturally competent mental healthcare protocol should be developed and implemented exclusively for FSWs. The authors also advocate for educating clinicians regarding the unique challenges faced by sex workers, to help address the myths on sex work-related stigma and develop clinical training arrangements in relation to mental healthcare utilization for sex workers.

Although the opportunity to access necessary healthcare services when required is a universal human right (Nunes et al. 2017), like other studies, several papers included in our review showed that FSWs experienced adversities accessing healthcare at times (Potter et al. 2022; Mastrocola et al. 2015; Wanyenze et al. 2017). The FSWs were highly susceptible to different communicable and non-communicable diseases (Zehnder et al. 2019; Baker et al. 2003), but special attention to this issue for this marginalized social group was often ignored. Furthermore, we noted that the FSWs were often victims of drug abuse and violence, which corresponds with some previous studies (McCann et al. 2021; Prangnell et al. 2018; Roshanfekr et al. 2015). The FSWs consumed drugs and alcohol frequently (Parmley et al. 2019) despite their association with adverse health outcomes (Woods et al. 2019; Jones et al. 2018). A study included in our review showed that although the FSWs were common victims of client-perpetrated violence and abuse, they often did not know where to seek post-violence support (Parmley et al. 2019; Wanyenze et al. 2017), which matches other studies (Javalkar et al. 2019; Deering et al. 2014). Interventions focusing on the creation of awareness, education, and behavior-change practices can play an important role in this regard.

While the findings of our review present some important facts, we acknowledge its limitations. We did not include books, reports, or grey literature, hence we may have missed some additional information on the health-seeking behavior of FSWs. The inclusion of additional databases may have yielded some extra information to make the review stronger; however, we consulted with a health librarian to ensure we used the most relevant databases for this review. We considered papers that were published in the last 10 years and written in the English language only, which also may have minimized the scope of the review to some extent. In addition, the included studies used a cross-sectional research

design, so any generalization with regard to the trend of our concerned topic should be made with caution, as it used information from a single time point. Furthermore, we did not put any country restrictions and did not limit by the type of FSWs, which broadened the scope of this study.

Conclusion

FSWs across the globe face challenges seeking healthcare. The reviewed evidence suggests that FSWs mostly sought care for sexual and reproductive health issues, particularly HIV/AIDS and STIs for which they experienced additional stigma and discrimination. In addition, FSWs were largely subject to the effects of drug use, violence, and abuse. Further, although this socially marginalized group needs urgent and special attention, they were almost always ignored. We suggest policy researchers and consultants to consider these issues addressing both general and SRH needs of the FSWs effectively. Facilitating women to access healthcare through promotion of awareness in the society and specialized healthcare service for the FSWs can be effective in this regard. In addition, victim support centers targeting disadvantaged women such as the FSWs are equally important. Findings from our study can assist researchers get a deep insight into the preventive healthcare-seeking behaviors and issues of disadvantaged female sex workers that will help to assure good health, well-being, and non-discrimination for this marginalized group. The study synthesizes useful and updated data that may benefit researchers, program planners, and policymakers in formulating/improvising strategic interventions for the vulnerable communities in the near future.

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Code availability Not applicable.

Declarations

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Informed consent Not Applicable.

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References

- Alam N, Wahed T, Alam A, Dema P, Oishi S, Nahar Q (2021) Condom use, symptoms of suggestive sexually transmitted infections, and health care seeking among female sex workers in Bangladesh. *Int J STD AID* 32(12):1114–1122. <https://doi.org/10.1177/09564624211021312>
- Ameyan W, Jeffery C, Negash K, Biruk E, Taegtmeier M (2015) Attracting female sex workers to HIV testing and counselling in Ethiopia: a qualitative study with sex workers in Addis Ababa. *Afr J AIDS Res* 14(2):137–144. <https://doi.org/10.2989/16085906.2015.1040809>
- Baker LM, Case P, Policicchio DL (2003) General health problems of inner-city sex workers: a pilot study. *J Med Libr Assoc* 91(1):67–71
- Benoit C (2020) COVID-19 benefits exclude sex workers in Canada. Policy Options, Montreal Canada. Retrieved from: <https://policyoptions.irpp.org/magazines/october-2020/covid-19-benefits-exclude-sex-workers-in-canada/>. Accessed 6 Aug 2022
- Benoit C, Unsworth R (2022) COVID-19, stigma, and the ongoing marginalization of sex workers and their support organizations. *Arch Sex Behav* 51(1):331–342. <https://doi.org/10.1007/s10508-021-02124-3>
- Deering KN, Amin A, Shoveller J, Nesbitt A, Garcia-Moreno C, Duff P, Argento E, Shannon K (2014) A systematic review of the correlates of violence against sex workers. *Am J Public Health* 104(5):e42–e54. <https://doi.org/10.2105/AJPH.2014.301909>
- Dourado I, Guimarães M, Damacena GN, Magno L, de Souza Júnior P, Szwarcwald CL, The Brazilian FSW Group (2019) Sex work stigma and non-disclosure to health care providers: data from a large RDS study among FSW in Brazil. *BMC Int Health Hum Rights* 19(1):8. <https://doi.org/10.1186/s12914-019-0193-7>
- Fatema SR, East L, Islam MS, Usher K (2021) Health impact and risk factors affecting south and southeast Asian women following natural disasters: a systematic review. *Int J Environ Res Public Health* 18(21):11068. <https://doi.org/10.3390/ijerph182111068>
- Gichuna S, Hassan R, Sanders T, Campbell R, Mutonyi M, Mwangi P (2020) Access to healthcare in a time of COVID-19: sex workers in crisis in Nairobi, Kenya. *Glob Public Health* 15(10):1430–1442. <https://doi.org/10.1080/17441692.2020.1810298>
- González-Alcaide G, Menchi-Elanzi M, Nacarapa E, Ramos-Rincón JM (2020) HIV/AIDS research in Africa and the Middle East: participation and equity in North–South collaborations and relationships. *Glob Health* 16(1):83. <https://doi.org/10.1186/s12992-020-00609-9>
- Gurnani V, Beattie TS, Bhattacharjee P, CFAR Team, Mohan HL, Madhur S, Washington R, Isac S, Ramesh BM, Moses S, Blanchard JF (2011) An integrated structural intervention to reduce vulnerability to HIV and sexually transmitted infections among female sex workers in Karnataka state, south India. *BMC Public Health* 11:755. <https://doi.org/10.1186/1471-2458-11-755>
- Hong Y, Zhang C, Li X, Lin D, Liu Y (2013) HPV and cervical cancer related knowledge, awareness and testing behaviors in a community sample of female sex workers in China. *BMC Public Health* 13:696. <https://doi.org/10.1186/1471-2458-13-696>
- Hong QN, Fàbregues S, Bartlett G, Boardman FK, Cargo M, Dagenais P, Gagnon M, Griffiths FE, Nicolau B, O’Cathain A, Rousseau MC, Vedel I, Pluye P (2018) The mixed methods appraisal

- tool (MMAT) version 2018 for information professionals and researchers. *Educ Inf* 34:285–291
- Htut KM, Mon MM, Aye ZM, Ni LL (2018) Young key affected population in Myanmar: are there any challenges in seeking information and care for HIV/sexually transmitted infections and reproductive health? *F1000Res* 7:1515. <https://doi.org/10.12688/f1000research.16029.2>
- Islam A, Smyth R (2012) The economic returns to good looks and risky sex in the Bangladesh commercial sex market. *B E J Econ Anal Policy* 1:1–25. <https://doi.org/10.1515/1935-1682.3059>
- Janyam S, Phuengsamran D, Pangnongyang J, Saripra W, Jitwatanapataya L, Songsamphan C, Benjarattanaporn P, Gopinath D (2020) Protecting sex workers in Thailand during the COVID-19 pandemic: opportunities to build back better. *WHO South East Asia J Public Health* 9(2):100–103. <https://doi.org/10.4103/2224-3151.294301>
- Javalkar P, Platt L, Prakash R, Beattie TS, Collumbien M, Gafos M, Ramanaik S, Davey C, Jewkes R, Watts C, Bhattacharjee P, Thalinja R, Kavita DL, Isac S, Heise L (2019) Effectiveness of a multilevel intervention to reduce violence and increase condom use in intimate partnerships among female sex workers: cluster randomised controlled trial in Karnataka, India. *BMJ Glob Health* 4(6):e001546. <https://doi.org/10.1136/bmjgh-2019-001546>
- Jones R, Woods C, Usher K (2018) Rates and features of methamphetamine-related presentations to emergency departments: an integrative literature review. *J Clin Nurs* 27(13–14):2569–2582. <https://doi.org/10.1111/jocn.14493>
- King EJ, Maman S, Bowling JM, Moracco KE, Dudina V (2013) The influence of stigma and discrimination on female sex workers' access to HIV services in St. Petersburg, Russia. *AIDS Behav* 17(8):2597–2603. <https://doi.org/10.1007/s10461-013-0447-7>
- Lafort Y, Greener R, Roy A, Greener L, Ombidi W, Lessitala F, Haghparsat-Bidgoli H, Beksinska M, Gichangi P, Reza-Paul S, Smit JA, Chersich M, Delva W (2016) Where do female sex workers seek HIV and reproductive health care and what motivates these choices? a survey in 4 cities in India, Kenya, Mozambique and South Africa. *PloS one* 11(8):e0160730. <https://doi.org/10.1371/journal.pone.0160730>
- Link B, Phelan J (2014) Stigma power. *Soc Sci Med* 103:24–32. <https://doi.org/10.1016/j.socscimed.2013.07.035>
- Lyons CE, Schwartz SR, Murray SM, Shannon K, Diouf D, Mothopeng T, Kouanda S, Simplice A, Kouame A, Mnisi Z, Tamoufe U, Phaswana-Mafuya N, Cham B, Drame FM, Aliu Djalo M, Baral S (2020) The role of sex work laws and stigmas in increasing HIV risks among sex workers. *Nature Commun* 11(1):773. <https://doi.org/10.1038/s41467-020-14593-6>
- Mastrocola EL, Taylor AK, Chew-Graham C (2015) Access to healthcare for long term conditions in women involved in street-based prostitution: a qualitative study. *BMC Fam Pract* 16:118. <https://doi.org/10.1186/s12875-015-0331-9>
- McCann J, Crawford G, Hallett J (2021) Sex worker health outcomes in high income countries of varied regulatory environments: a systematic review. *Int J Environ Res Public Health* 18(8):3956. <https://doi.org/10.3390/ijerph18083956>
- Muhindo R, Mujugira A, Castelnuovo B, Sewankambo NK, Parkes-Ratanshi R, Kiguli J, Tumwesigye NM, Nakku-Joloba E (2020) HIV and syphilis testing behaviors among heterosexual male and female sex workers in Uganda. *AIDS Res Ther* 17(1):48. <https://doi.org/10.1186/s12981-020-00306-y>
- Muhindo R, Mujugira A, Castelnuovo B, Sewankambo NK, Parkes-Ratanshi R, Tumwesigye NM, Nakku-Joloba E, Kiguli J (2021) I felt very small and embarrassed by the health care provider when I requested to be tested for syphilis: barriers and facilitators of regular syphilis and HIV testing among female sex workers in Uganda. *BMC Public Health* 21(1):1982. <https://doi.org/10.21203/rs.3.rs-800413/v1>
- Nunes R, Nunes SB, Rego G (2017) Health care as a universal right. *Z Gesundh Wiss [J Public Health]* 25(1):1–9. <https://doi.org/10.1007/s10389-016-0762-3>
- Nyblade L, Reddy A, Mbote D, Kraemer J, Stockton M, Kemunto C, Krotki K, Morla J, Njuguna S, Dutta A, Barker C (2017) The relationship between health worker stigma and uptake of HIV counseling and testing and utilization of non-HIV health services: the experience of male and female sex workers in Kenya. *AIDS Care* 29(11):1364–1372. <https://doi.org/10.1080/09540121.2017.1307922>
- Parmley L, Rao A, Kose Z, Lambert A, Max R, Phaswana-Mafuya N, Mcingana M, Hausler H, Baral S, Schwartz S (2019) Antenatal care presentation and engagement in the context of sex work: exploring barriers to care for sex worker mothers in South Africa. *Reprod Health* 16(Suppl 1):63. <https://doi.org/10.1186/s12978-019-0716-7>
- Platt L, Elmes J, Stevenson L, Holt V, Rolles S, Stuart R (2020) Sex workers must not be forgotten in the COVID-19 response. *Lancet* 396(10243):9–11. [https://doi.org/10.1016/S0140-6736\(20\)31033-3](https://doi.org/10.1016/S0140-6736(20)31033-3)
- Potter LC, Horwood J, Feder G (2022) Access to healthcare for street sex workers in the UK: perspectives and best practice guidance from a national cross-sectional survey of frontline workers. *BMC Health Serv Res* 22(1):178. <https://doi.org/10.1186/s12913022-07581-7>
- Prakash R, Manthri S, Tayyaba S, Joy A, Raj SS, Singh D, Agarwal A (2016) Effect of physical violence on sexually transmitted infections and treatment seeking behaviour among female sex workers in Thane district, Maharashtra, India. *PloS One* 11(3):e0150347. <https://doi.org/10.1371/journal.pone.0150347>
- Prangnell A, Shannon K, Nosova E, DeBeck K, Milloy MJ, Kerr T, Hayashi K (2018) Workplace violence among female sex workers who use drugs in Vancouver, Canada: does client-targeted policing increase safety? *J Public Health Policy* 39(1):86–99. <https://doi.org/10.1057/s41271-017-0098-4>
- Roshanfekr P, Noori R, Dejman M, Fathi Geshnigani Z, Rafiey H (2015) Drug use and sex work among at-risk women: a qualitative study of initial factors. *Iran J Psychiatry Behav Sci* 9(2):e953. <https://doi.org/10.17795/ijpbs953>
- Saggurti N, Mishra RM, Proddutoor L, Tucker S, Kovvali D, Parimi P, Wheeler T (2013) Community collectivization and its association with consistent condom use and STI treatment-seeking behaviors among female sex workers and high-risk men who have sex with men/transgenders in Andhra Pradesh, India. *AIDS Care* 25(Suppl1):S55–S66. <https://doi.org/10.1080/09540121.2012.749334>
- Sanders T (2020) Sex workers in the crisis of COVID. *Br J Community Justice*. Retrieved July 23, 2020 from <https://www.mmuperu.co.uk/bjcblog/sex-workers-in-the-crisis-of-covid>. Accessed 17 Aug 2022
- Sawicki DA, Meffert BN, Read K, Heinz AJ (2019) Culturally competent health care for sex workers: an examination of myths that stigmatize sex-work and hinder access to care. *Sex Relation Ther* 34(3):355–371. <https://doi.org/10.1080/14681994.2019.1574970>
- Singer R, Crooks N, Johnson AK, Lutnick A, Matthews A (2020) COVID-19 prevention and protecting sex workers: a call to action. *Arch Sex Behav* 49(8):2739–2741. <https://doi.org/10.1007/s10508-020-01849-x>
- Singer RB, Johnson AK, Crooks N, Bruce D, Wesp L, Karczmar A, Mkandawire Valhmu L, Sherman S (2021) "Feeling safe, feeling seen, feeling free": combating stigma and creating culturally safe care for sex workers in Chicago. *PloS One* 16(6):e0253749. <https://doi.org/10.1371/journal.pone.0253749>
- Stangl AL, Lloyd JK, Brady LM, Holland CE, Baral S (2013) A systematic review of interventions to reduce HIV-related stigma and

- discrimination from 2002 to 2013: how far have we come? *J Int AIDS Soc* 16(3 Suppl 2):18734. <https://doi.org/10.7448/IAS.16.3.18734>
- Streatfield PK, Khan WA, Bhuiya A, Hanifi SM, Alam N, Millogo O, Sié A, Zabré P, Rossier C, Soura AB, Bonfoh B, Kone S, Ngoran E, Utzinger J, Abera SF, Melaku YA, Weldearegawi B, Gomez P, Jasseh M et al (2014) HIV/AIDS-related mortality in Africa and Asia: evidence from INDEPTH health and demographic surveillance system sites. *Glob Health Action* 7:25370. <https://doi.org/10.3402/gha.v7.25370>
- Sutherland EG, Alaii J, Tsui S, Luchters S, Okal J, King'Cla N, Temmerman M, Janowitz B (2011) Contraceptive needs of female sex workers in Kenya — a cross-sectional study. *Eur J Contracept Reprod Health Care* 16(3):173–182. <https://doi.org/10.3109/13625187.2011.564683>
- Thomas J, Harden A (2008) Methods for the thematic synthesis of qualitative research in systematic reviews. *BMC Med Res Methodol* 8:45. <https://doi.org/10.1186/1471-2288-8-45>
- Treloar C, Stardust Z, Cama E, Kim J (2021) Rethinking the relationship between sex work, mental health and stigma: a qualitative study of sex workers in Australia. *Soc Sci Med* 113468:268. <https://doi.org/10.1016/j.socscimed.2020.113468>
- Usher K, Durkin J, Bhullar N (2020) The COVID-19 pandemic and mental health impacts. *Int J Ment Health Nurs* 29(3):315–318. <https://doi.org/10.1111/inm.12726>
- Varga LM, Surratt HL (2014) Predicting health care utilization in marginalized populations: black, female, street-based sex workers. *Womens Health Issues* 24(3):e335–e343. <https://doi.org/10.1016/j.whi.2014.02.001>
- Wahed T, Alam A, Sultana S, Rahman M, Alam MM, Somrongthong R (2017) Barriers to sexual and reproductive healthcare services as experienced by female sex workers and service providers in Dhaka city, Bangladesh. *Plos One* 12(7):e0182249. <https://doi.org/10.1371/journal.pone.0182249>
- Wanyenze RK, Musinguzi G, Kiguli J, Nuwaha F, Mujisha G, Musinguzi J, Arinaitwe J, Matovu J (2017) "When they know that you are a sex worker, you will be the last person to be treated": perceptions and experiences of female sex workers in accessing HIV services in Uganda. *BMC Int Health Hum Rights* 17(1):11. <https://doi.org/10.1186/s12914-017-0119-1>
- Wirawan G, Wardhani B, Pradnyani PE, Nurhalina A, Sulaiman N, Sukmaningrum E, Wulandari L, Januraga PP (2022) Behavioral changes, adaptation, and supports among Indonesian female sex workers facing dual risk of COVID-19 and HIV in a pandemic. *Int J Environ Res Public Health* 19(3):1361. <https://doi.org/10.3390/ijerph19031361>
- Woods C, Jones R, Usher K (2019) The impact of unintentional alcohol-related falls on emergency departments. *Australas Emerg Care* 22(1):22–27. <https://doi.org/10.1016/j.auec.2018.11.001>
- Zehnder M, Mutschler J, Rössler W, Rufer M, Rüsch N (2019) Stigma as a barrier to mental health service use among female sex workers in Switzerland. *Front Psychiatry* 10:32. <https://doi.org/10.3389/fpsy.2019.00032>

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