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Gynecological health care services utilization and violence among female sex workers in Togo in 2021

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Abstract

Background Female Sex Workers (FSW) in Sub Saharan Africa face multiple challenges increasing their vulnerability to poor health, particularly poor sexual and reproductive (SRH) health outcomes and violence. The aim of this study was to assess the use of gynecology health care services and factors associated with its use as well as experiences of violence among FSW in Togo.

Method A cross-sectional study was carried out in 2021 among FSW in two cities of Togo. A snowball sampling method was used and initial seeds were identified in each site in collaboration with FSW non-governmental organizations. A logistic regression was performed to identify factors associated with the use of a SRH service and violence.

Results A total of 447 FSW with a median age of 30 [IQR: (24–38)] participated in this study and 43.4% of them had reached at least secondary school. Among them, 29.1% reported having been to a gynecological consultation over the previous year. Factors associated with a gynecological consultation included: living in the Lomé capital city (aOR = 0.35, 95%CI 0.22–0.54), and an experience of condom breakage or slippage (aOR = 2.00; 95%CI 1.19–2.64). The majority reported at least one lifetime pregnancy (87.9%), 39.8% reported ever having an unintended pregnancy and 67.6% of them ever had an abortion. Finally, 61.1% indicated being victims of physical, sexual, or emotional violence in the previous six months. Sex workers living in Lomé (aOR = 1.78; 95%CI 1.16–2.73); a history of abortion (aOR = 1.53; 95%CI 1.03–2.31) and having more than 15 clients per week (aOR = 4.87; 95% CI 1.99–11.94), were more likely to experience violence.

Conclusion There is an under-utilization of health care services among FSW in Togo in addition to overall poor sexual and reproductive health outcomes with a high prevalence of gender-based violence. Those results highlight the importance of continued advocacy for the integration of SRH care with HIV prevention services geared toward FSW as well as a holistic approach to SRH care with innovative ways to prevent violence.

Keywords Sexual and reproductive health, Female sex workers, Key populations, Health care services, Violence

Plain Language Summary

Female Sex Workers (FSW) in sub-Saharan Africa face multiple challenges including challenges linked to access to health care services, particularly sexual and reproductive health services and issues related to violence. However,

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few studies in Togo have explored sexual and reproductive health and violence among FSW. We used a cross-sectional study design to describe the use of sexual and reproductive health services by FSW in Togo and to document their experience of violence. A total of 130 FSW reported a gynecological consultation in the previous year, 42.7% had STI symptoms and 60.7% of them consulted a health care professional for those symptoms. We also found that 179 FSW ever had an unintended pregnancy and among them 67% ever had an abortion. Almost all FSW reported the use of condoms as their main contraception method, however 87.7% of FSW used condoms consistently with their clients. The majority of FSW reported ever being victim of physical, sexual or emotional violence. FSW with a history of abortion, with a high number of clients per week (> 15), and living in the capital city were more likely to have experience of violence. Those results would be helpful as a basis to advocate for a greater access of FSW to SRH services as part of their package of HIV prevention, care and treatment.

Background

Sexual and reproductive health (SRH) is defined as the physical, emotional and social well-being in all matters related to the sexual and reproductive health system [1, 2]. In essence, optimal SRH includes the improvement of maternal and child health, the availability of family planning services, promotion of sexual health including early diagnosis of reproductive health illnesses, prevention of unplanned pregnancies and the prevention of sexually transmitted infections (STI) including HIV [1, 3]. SRH is an integral part of overall health, well-being and quality of life and encompasses matters related to the reproductive health system [1]. Among all sexual and reproductive health issues, the HIV epidemic remains an important challenge in sub-Saharan Africa (SSA), particularly for women. Despite some important gains in the fight against HIV worldwide, SSA remains amongst the regions the most affected by the HIV epidemic with 57% of new HIV infections in 2021 [4]. In addition, women continue to lag behind in this region: in 2021, women accounted for 63% of new HIV infections and girls and women were twice as likely to be living with HIV than young men [4]. Furthermore, key populations (sex workers, gay men and other men who have sex with men, people who inject drugs, transgender people) and their sexual partners/clients in SSA remain disproportionately affected by HIV, with 51% of new HIV infections in the region [4]. FSW in sub-Saharan Africa, at the intersection of these groups, carry a significant burden of disease that could increase their vulnerability to poor health outcomes. In fact, FSW have 26 times the risk of acquiring HIV compared to their female counterparts in the general population, and in SSA, 37% of FSW are living with HIV [5, 6]. In addition, other factors such as the criminalization of sex work and the stigmatization and discrimination deriving from it play an important role in increasing their vulnerability (limited access to healthcare services) to poor sexual and reproductive health outcomes [7]. FSW face important sexual and reproductive challenges, in terms of morbidity and mortality, unmet need for family planning and contraception, high burden of STI, unintended pregnancy and high rates of termination of pregnancies [8–10]. Unintended pregnancy in particular plays an important role with the need to provide for children as the basis for entry into sex work as well as a potential occupational risk [10]. In addition, gender-based violence is a problematic aspect of sex work, pervasive in this work environment, that has been linked to HIV risk [11, 12]. Gender-based violence (GBV) is defined as the harmful physical, emotional, and sexual act of violence perpetrated against one's will and based on gender norms and unequal power relationships. Also, several studies have demonstrated the link between violence and HIV infection and general poor health SRH outcomes among FSW [13, 14]. The reduction of physical and sexual violence among FSW in Ukraine and Kenya yielded a 25% reduction in the incidence of HIV among FSW [15]. With the multiple consequences of violence on SRH outcomes, the elimination of GBV is tied to the improvement of women's health [11].

In a global HIV prevention framework, SRH needs of FSW are key to successful HIV prevention. However, SRH services have either not been integrated into HIV programs or tailored to the specific needs of FSW, or they have not been provided at all to this vulnerable group [5, 9, 16]. The United Nations General assembly has set the goal that 95% of women and girls of reproductive age would have their HIV and sexual and reproductive health needs met, by 2025 [6]. Similarly, the sustainable development goals aim to ensure universal access to sexual and reproductive health-care services and the integration of reproductive health into national strategies and programs by 2030 [17]. For this target to be reached, particularly among FSW for whom data on such outcomes are often scarce [18], documentation on the practices and uses of SRH services by FSW and the prevalence of violence among FSW are needed Fig. 1.

Togo is a country of West Africa with a generalized HIV epidemic and an estimated HIV prevalence of 2.0% in the general population, 2.71% among women

Fig. 1 Map of the Republic of Togo with main cities

in 2020 [19] and 13.2% among FSW in 2017 [20]. Although important strides have been made in the country in HIV and STI prevention among FSW, data on sexual and reproductive health among FSW are scarce. The aim of this study was to assess the use of gynecology health care services and factors associated with its use as well as experiences of violence among FSW in Togo.

Methods

Study design and setting

A cross-sectional study using a snowball sampling method was conducted in June and July 2021, in Kara and Lomé, two most populous cities of Togo. Togo is a country of West Africa, with a population of 7.6 million inhabitants in 2018, covering 57,000 square kilometres with an average density of 133 inhabitants per square kilometres, an infant mortality of 45.2/ 1,000 and an estimated life expectancy of 64.5 years old. Lomé, the economic capital is located on the coast of the Atlantic Ocean, in the far south-western corner of Togo. Kara, the second most populous city of the country is located 413 km north of the capital city (Fig. 1). Based on previous mapping and size estimation studies among key populations including FSW in Togo [21], Lomé and Kara were selected as study sites.

Study population and sample size

FSW were eligible to participate in the study if they were 18 years and older; self-identified as sex workers (defined as engaging in transactional sex at least in the past 6 months; having sex in exchange for money or goods with clients as opposed to emotional partners or boyfriends); and were in the possession of a recruitment coupon. The sample size was determined based on the prevalence of gender-based violence among FSW in Cameroon estimated at 60% [13]. With a precision of 5%, a confidence interval of 95% and an assumption of 10% missing data/nonresponse rate, the estimated minimum sample size was 405.

Steps were taken prior to the beginning of the study to identify and establish with leaders from local FSW non-governmental organizations the "hotspots" for FSWs, including brothels and bars. A total of 10 sites were selected across Lomé and 03 sites in Kara. A snowball sampling method was used to identify potential participants, who then recruited other participants until the required sample size was reached at each site. Leaders were identified in each location, contacted and recruited into the study and then recruited other peers. The leaders from each site (brothel) collaborated with the research team to arrange a space within the site that would protect the privacy of each participant. Leaders were informed of the research process and notified prior to the arrival of the research team. At each site, the research team was accompanied by a peer educator from a community based FSW non-governmental organization. Questionnaires were pre-tested among three randomly selected FSW in Kara and Lomé, who did not take part in the actual study.

Data collection

After verifying eligibility and obtaining consent, trained research staff (medical students) administered a face-to-face structured questionnaire in participant's language of choice (French, Ewe or English). Questions were adapted from previous surveys on the subject and based on an extended literature review on the subject. The questionnaire was structured in six main items: (1) socio-demographic characteristics; (2) condom use (3) SRH (STI, SRH consultations, maternal health, pregnancy and contraception); (5) pre-exposure prophylaxis and (6) violence. One questionnaire took approximately twenty-minutes to complete. Each participant was sensitized on STI and HIV prevention, sexual and reproductive health care and received male condoms and lubricants.

Measurements

The measurements are focused on two main outcomes. The first is related to the use of SRH services and the second outcome on violence.

Use of health services:

- Use of health care services was assessed with gynecological consultation and consultation for STI treatment. Specifically, FSW were asked if they had a gynecological consultation in the previous 12 months; whether they had any STI symptoms (abnormal vaginal discharge, vaginal itching, genital ulceration, pain while urinating, abdominal pain) in the previous 12 months and if they sought a medical consultation for those symptoms.
- For contraceptive use, FSW were asked whether they were currently using a contraceptive method.

Violence

Regarding violence, three types of violence were measured. FSW were asked whether they had been victim of physical, sexual and emotional violence in the previous six months, in the context of their sex work activity. Physical violence was defined as being pushed, shoved, beaten or hurt; sexual violence was defined as being forced to have sex or being forced to have any type of sexual relations, and emotional violence was defined as being victim of harassment, threats, intimidation, mockeries and taunts.

Statistical methods

Analyses were performed using STATA software (STATA™ 12.0 College Station, Texas, USA). Results of descriptive analysis were presented as median and interquartile range (IQR) for quantitative variables and frequency and proportions for categorical variables. Univariate and multivariate logistic regression were performed with a stepwise-descending selection procedure to identify factors associated with gynecologic consultation and violence. A stepwise-descending selection procedure was used mainly because of its ability to help in selecting the most relevant predictor variables among the large pool of potential variables. The selection of covariates for multivariate analysis was based on the univariate analyses with factors associated with a p-value < 0.20. We deemed a p-value < 0.05 as statically significant for all analyses. Associations in the regression model were expressed as adjusted odds ratio (aOR) with their 95% Confidence intervals (CI).

Ethical considerations

This study was approved by the Bioethics committee for Health research of the Ministry of Health in Togo (n°11/2020). Prior to the beginning of the study, participants were told about study purpose, procedures, protection of privacy and confidentiality and provided consent. No identifiers were collected, hence no information that could reveal their identity was entered.

Results

Sociodemographic characteristics and sexual history

A total of 447 FSW were recruited, 300 in Lomé (capital city) and 147 in Kara (2nd city in Togo). Median age was 30 years old [IQR: 24–38]) and 63.8% (n = 285) were single. More than half (n = 262; 58.6%) had other income generating activities aside from sex work, mainly in trade and services such as hairdressing, tailoring, etc. Median age at first sex was 18 years old [IQR: (16 – 20)] and median age at first transactional sex was 23 [IQR: (19 -31)], with 15% (n = 67) having started to sell sex as minors (before the age of 18). Participants had a median of 5 clients (IQR: [3-10]) in the preceding 7 days with an overall median earning between XOF 10,000 and XOF 25,000 in those preceding 7 days (Table 1).

A total of 259 (57.5%) FSW confirmed having a non-paying partner (defined as a boyfriend; emotional partner as opposed to clients, paying partner), and 32.0% of them (n = 83) indicated using condoms with those partners during the last sexual intercourse. In regard to the use of condoms with clients, 95.7% (n = 428) reported using condoms with their clients during their last sexual intercourse, and 87.7% (n = 392) indicated using condoms systematically (every time) with their clients in the previous month. (Table 1).

Gynecological health care service utilization

A total of 207 (46.3%) FSW indicated having had at least one contact with health care services in the previous year and nearly a third (n = 130; 29.1%) reported having been to a gynecological consultation in the previous year. Among 88 FSW reporting STI symptoms at the time of the study, 14 (15.9%) indicated having consulted a medical professional for those symptoms.

For the remaining 240 who did not have any contact with health care services in the previous 12 months, 37.9% (n = 91) indicated having no health problems in the previous year; 36.3% (n = 87) indicated using self-medication; 12.5% (n = 30) went to the pharmacist and 11.7% (n = 28) used traditional plants and medicine for

Table 1 Sociodemographic characteristics and sexual history among female sex workers (FSW) in Togo in 2021 (N = 447)

Characteristics	Lomé (n = 300)		Kara (n = 147)		Total (n = 447)	
	n (%)		n (%)		N (%)	
Age (years), Median (IQR)	30 [24–38.5]		29 [23–36]		30 [24–38]	
Age (years)						
< 30	147	49.0	74	50.3	221	49.4
≥ 30	153	51.0	73	49.7	226	50.6
Level of education						
None	76	25.3	12	8.2	88	19.7
Primary	100	33.3	41	27.9	141	31.5
Secondary	108	36.0	86	58.5	194	43.4
University	16	5.3	8	5.4	24	5.4
Marital status						
Married or living with a husband/a partner	30	10.0	16	10.9	46	10.3
Divorced/Separated/Widowed	79	26.3	37	25.2	116	25.9
Single	191	63.7	94	63.9	285	63.8
Currently with a partner						
Yes	158	52.7	105	71.4	263	58.8
No	142	47.3	42	28.6	184	41.2
Other income generating activities						
Yes	178	59.3	84	57.1	262	58.6
No	122	40.7	63	42.9	185	41.4
Age at first sex, Median (IQR)	18 [16–20]		18 [16–20]		18 [16–20]	
Age at first sex (years)						
< 18	135	45.0	66	44.9	201	45.0
≥ 18	165	55.0	81	55.1	246	55.0
Number of years in sex work, Median (IQR)	5 [3–11]		5 [3–11]		5 [3–11]	
Number of years in sex work						
< 1	45	15.0	17	11.6	62	13.9
Between 1 and 3	108	36.0	48	32.6	156	34.9
> 3	147	49.0	82	55.8	229	51.2
Number of clients in the previous 7 days, Median [IQR]	6 [4–10]		4 [2–6]		5 [3–10]	
Number of clients in the previous 7 days						
≤ 7	176	58.7	124	84.4	300	67.1
Between 8 and 14	81	27.0	14	9.5	95	21.3
≥ 15	43	14.3	9	6.1	52	11.6
Income earned in the last 7 days (XOF)						
Less than 10 000	63	21.0	65	44.2	128	28.6
10000–25 000	134	44.7	51	34.7	185	41.4
25000–100 000	96	32.0	17	11.6	113	25.3
More than 100 000	3	1.0	1	0.7	4	0.9
Does not know	4	1.3	13	8.8	17	3.8
Condom accident (breakage or slippage)						
Yes	71	23.7	17	11.6	88	19.7
No	229	76.3	130	88.4	359	80.3

their health problems. Among all the recruited FSW, 70.0% indicated getting an HIV test within the previous year and 21 (6.7%) confirmed their HIV-positive status (Table 2).

Table 2 Utilization of any health care services and gynecology services during the previous year among female sex workers in Togo in 2021 (N = 447)

	Yes		No	
	n	%	N	%
Any contact with health care services	207	46.3	240	53.7
Gynecologic consultation	130	29.1	317	70.9
STI symptoms	191	42.7	256	57.3
STI health care visit for symptoms (n = 191)	116	60.7	75	39.3
HIV testing	313	70.0	134	30.0
Cervical cancer testing (ever)	37	8.3	410	91.7

Table 3 Sexual and reproductive health experience among female sex workers in Togo in 2021

	Total	
	N	%
Number of lifetime pregnancies, Median [IQR]	2 [1–4]	
Number of lifetime pregnancies		
0	53	11.9
1–2	191	42.7
3–4	133	29.7
≥ 5	70	15.7
Number of children, Median [IQR]	2 [1, 2]	
Number of children		
0	93	20.8
1	121	27.1
2	123	27.5
3	55	12.3
≥ 3	55	12.3
Ever had an unintended pregnancy		
Yes	179	40.0
No	268	60.0
Ever had an abortion		
Yes	179	40.0
No	268	60.0
Desire for future pregnancies		
No	169	40.7
Yes, within the year	75	18.1
Yes, sometimes in the future	171	41.2
Use of a contraceptive method		
Yes	344	77.0
No	103	23.0
Types of contraceptives used		
Condoms	229	66.8
Oral pill	28	8.2
Implants	22	6.4
Injectable or IUD	26	7.6
Natural method	2	0.6
Dual method (condom + modern contraceptive)	36	10.4

Sexual and reproductive health history

A total of 393 (87.9%) FSW reported at least one lifetime pregnancy and 354 (79.2%) reported having at least one child, among whom 37.6% (n = 133) had a pregnancy during the practice of sex work. Six (1.3%) FSW indicated being pregnant at the time of the study. More than a third of the sample (n = 178; 39.8%) indicated ever having an unintended pregnancy. Almost half of the sample (n = 179; 40.0%) reported ever having an abortion and 67.6% (n = 121) of those reporting having an unintended pregnancy had an abortion (Table 3).

Contraception

A total of 415 FSW were of reproductive age (18 to 49 years old). Almost all of them indicated using a contraceptive method (n = 401; 96.6%); however, only 27.2% (n = 113) used non-barrier methods, including 36 (8.6%) who used dual methods (condoms and any other modern non-barrier method). Condoms were the most common contraceptive method used (69.4%; n = 288) (Table 3). Among those who did not use condoms consistently with their clients, 39.6% indicated using condoms as their main contraceptive method ($p < 0.001$). About 7 FSW out of 10(66.7%) among those who did not use condoms during their last sexual intercourse with their partners indicating using condoms as their main contraceptive method (Table 3). Three-fourth (n = 337; 75.4%) of FSW had heard of family planning and 21.1% (n = 71) of them had visited a family planning service in the previous 6 months (Table 3). Among FSW of reproductive age, 170 (40.9%) indicated no desire for childbirth, among whom 6 (3.6%) indicated not using contraception (unmet need for limiting births). Also, among those not using contraception, 5 (35.7%) indicated a desire for delayed childbirth.

Violence

A total of 273 FSW (61.1%) indicated being a victim of physical, sexual or emotional abuse in the 6 months prior to the survey. The most common type of violence was emotional (53.2%), followed by physical violence (24.2%) and sexual violence (11.2%). Emotional violence was perpetrated mostly by colleagues, friends or partners (54.6%), while physical and sexual violence were perpetrated by clients (49.1% and 58.0%, respectively). Sex workers living in Lomé were almost twice as likely to experience violence (aOR = 1.78; 95% CI [1.16–2.73]); a history of abortion (aOR = 1.53; 95% CI [1.03–2.31]) and having more than 15 clients per week (aOR = 4.87; 95% CI [1.99–11.94], $p < 0.001$), also increased the risk of experiencing violence (Table 4).

Table 4 Factors associated with violence and a gynecological consultation during the past 12 months among female sex workers in Togo (N = 447)

Variables	Violence in the previous 12 months			Gynecological consultation in the previous 12 months		
	Multivariate Analysis			Multivariate Analysis		
	aOR	95% CI	P-value	aOR	95% CI	P-value
City						
Kara	1			1		
Lomé	1.78	1.16–2.73	0.008	0.35	0.22–0.54	< 0.001
Age						
< 25						
25 -35						
> 35						
Other income generating activities						
Yes						
No						
Currently with a partner						
No						
Yes						
Number of years in sex work						
< 1				1		
Between 1 and 3				1.60	1.00–2.57	0.050
> 3				0.80	0.38–1.67	0.560
Number of clients in the previous 7 days						
≤ 7	1					
Between 8 and 14	1.28	0.77–2.12	0.325			
≥ 15	4.87	1.99–11.94	0.001			
Condom accident (breakage or slippage)						
No	1			1		
Yes	1.49	0.98–2.24	0.057	2.00	1.19–3.38	0.009
Symptoms of STI in the past year						
No	1					
Yes	1.49	0.98–2.24	0.057			
History of abortion						
No	1					
Yes	1.53	1.01–2.31	0.044			

Factors associated with a gynecological consultation in the previous 12 months

Factors associated with a gynecological consultation in the previous 12 months were living in the capital city of Lomé (aOR = 0.35, 95% CI [0.22–0.54], p > 0.0001), having 1 to 3 years of experience in sex work (aOR = 1.60, 95% CI [1.00–2.57], p = 0.050), and an experience of condom breakage of slippage within the previous 12 months (aOR = 2.00; 95% CI [1.19–2.64], p = 0.009) (Table 2).

Discussion

Results from this study revealed relatively low rates of contact with health care services (46%), high rates of lifetime history of unintended pregnancies and abortions (40%), as well as a high prevalence of self-reported STI symptoms (42.7%). FSW also face a high prevalence of emotional (53.2%), physical (24.2%) and sexual violence (11.2%) followed by physical violence and sexual violence.

There is a paucity of data on the utilization of health services in general, in the general population; however, studies have found that women have higher rates of health care utilization compared to men [22]. Healthcare utilization was estimated to be 60.8% in a study of 1,200 women in Iran [23], and 93% of women in a survey in the United States had seen a doctor or a health care provider in the previous two years [24]. In addition, there are no official guidelines or good practices for women's health care utilization. Nevertheless, several organizations such as the Centers for Disease Control and Prevention in the US, the women's preventive services initiative, or the American College of Obstetricians and Gynecologists recommends at least one well-woman preventive visit per year, in addition to other visits [25]. Although very few studies have explored health care use among women in the general population in SSA, studies assessing antenatal care and postnatal care use in the region among women indicate rates of non-use approximating 30% to 40% [26–28]. In our study, 46.3% indicated at least one contact with the health care system and about 40% of those who reported STI symptoms never sought care for those symptoms. Studies exploring health care utilization by FSW found approximately similar results as our study. In a study conducted among FSW in Nepal, although 30% indicated STI symptoms, 25% of them did not visit a health care facility for those symptoms [29]. In Mozambique, 56% of FSW reported IST symptoms, while 78% of them sought care for these symptoms [30]. In our context, the criminalization of sex work in most countries of the region, stigmatization and discrimination against FSW could be cited as reasons for delay or avoidance of health care utilization by FSW. Other studies have also cited experience of breach of confidentiality and perceived stigma as reasons of avoidance of health care services [30–32]. In a study in Côte d'Ivoire, FSW cited inconvenient opening times/location, fear of being identified as a FSW and the judgmental attitudes of the health care personnel as reasons for not seeking health even when necessary [33]. There is a need for additional research in health care utilization among FSW to better assess the reasons associated with avoidance of health care services, especially preventive services and advocate for solutions. Furthermore, research on models of care that could decrease perceived or actual stigma toward FSW and other key populations groups in health care settings should be considered.

Among FSW who did not seek health care services, almost 40% indicated using self-medication to solve their health problems during the year. A study in Peru reported a 32.1% rate of self-medication among FSW for STI symptoms, and self-medication was negatively correlated with awareness of STI services available [34]. Similarly, 45.8% of FSW indicated self-medication for STI treatment in Uzbekistan [35]. The use of self-medication among FSW could be explained in the context of Togo, and generally in SSA by poverty, lack of safety net hospitals and lack of universal health insurance to seek health care. Although self-medication is common in the region and is an important component of self-care that contributes to decreasing healthcare costs in developing countries [36], its increased used constitute a threat for public health with increasing concerns for antimicrobial resistance and the problem of counterfeit medical products in countries of Africa [37, 38]. Aside from issues related to stigma and discrimination, interventions to promote health care access for FSW should consider the financial burden associated with seeking medical care. One example of strategy could be the use of trained lay health workers, community-based organizations and trained peer educators that have been proven successful among FSW, especially for prevention in the context of sub-Saharan Africa [39]. There is also the need for more advocacy for the implementation of universal health coverage which would offset the financial burden associated with seeking health care.

The majority of FSW in this study reported the use of condoms as their main contraceptive method. Mixed results have been reported in regard to the most common contraceptive method used among FSW. For example, studies in Cameroon [40], Benin [41], Ghana [42] Malawi [43] found condoms to be the most used contraceptive methods among FSW. However, studies in Kenya [44], Uganda [45], in Zambia [46] reported the use of highly effective non-barrier contraceptive method for the majority of FSW. One hypothesis could be that contraceptive method use greatly depends on the national policies among women in general and could be tied to national policies on family planning especially availability, promotion and access to different types of contraceptive methods [47]. The use of dual methods, which provides simultaneous protection for unintended pregnancy and HIV/STIs with the consistent and correct use of condoms along with the use of the non-barrier method, has been encouraged among FSW [8]. However, consistent condom use remains an issue, with less than 90% of FSW in this study reporting using condoms consistently with their clients and very few using condoms with their partners. In addition, almost 40% of FSW in this study had a pregnancy during the practice of sex work and pregnancy during sex work was twice as likely among FSW who had a condom breakage history as well as those with a higher number of clients. With the inconsistent use of condoms and condoms as the main contraceptive method use, FSW are exposed to both HIV/STI and unintended pregnancy. Effort should be

directed toward sensitizing FSW to the use of dual methods of contraception which is effective in this population, while insisting on the importance of consistent and correct condom use, especially with clients. The question of whether the use of dual methods could impact condom use consistency remains, with mixed findings [8]. Further studies are needed in this area in order to observe whether the use of dual methods could have an impact on consistent condom use among FSW.

In this study, the prevalence of violence was high (61%) and comparable to rates found among FSW in the SSA region [12, 13, 48, 49]. This could be due to the hostile legal environment of countries in SSA including in Togo in which sex work is prohibited, thus allowing infringement to human rights while fostering an environment of impunity and the inability for the victims to seek justice. In addition, violence was significantly associated with a higher number of clients per week and a history of abortion demonstrating that issues of SRH, including HIV/STI prevention among FSW could not be approached with stand-alone strategies. Steps toward improving the social and legal environment of sex work could alleviate the interaction seen between violence and SRH outcomes. For example, a study using a mathematical model has shown that a 25% reduction in incident HIV infections among FSW could be observed in physical and sexual violence were reduced [15].

There are several limitations to this study including the self-report nature of the survey which could have led to some bias (recall, social desirability). Also, the cross-sectional nature of the study did not allow us to infer a temporal link between SRH outcomes and other factors. There might have also been some self-selection biases, that could have overestimated the proportion of FSW reporting being victim of violence. Finally, the use of a non-probability method could have also introduced some biases including sampling biased and generalizability issues. Despite these limitations, this study is among the first in Togo to have thoroughly explored the main components of SRH outcomes among FSW, including violence and the use of health care services.

Conclusions

This study explored SRH outcomes among FSW in Lomé and Kara. Findings reveal an under-use of health care services and generally poor sexual and reproductive health outcomes, in addition to pervasive violence. These findings highlight the urgent need to address SRH and violence issues among FSW. Additional strategies for easier access to sexual and reproductive health care services for FSW, the integration of HIV prevention programs with SRH services and interventions to protect the safety of FSW should be put in place. Further research should take an in-depth look at the ecological model of the impact of violence among FSW in the HIV epidemic. Qualitative studies could also add another layer of understanding into SRH among FSW.

Abbreviations

FSW	Female sex workers
SRH	Sexual and reproductive health
SSA	Sub-Saharan Africa
HIV	Human Immunodeficiency Virus
GBV	Gender-based violence
STI	Sexually transmitted infections
aOR	Adjusted odds ratio
IQR	Interquartile range

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Author contributions

DKE, PAC and ABA conceived the study with inputs from FGK for the design and coordination. AWB, AJS and ABA developed data collection tools, facilitated and coordinated data collection. ABA and DKE analyzed and interpreted the data. ABA and AWB wrote the first draft of the manuscript and FGK, AJS, PAC and DKE revised the manuscript for intellectual content. All authors approved the final version of the manuscript.

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Availability of data and materials

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

Declarations

Ethics approval and consent to participate

Ethical approval was obtained from the the National Bioethics Committee for Health Research of Togo (ethics clearance number 011/2020/CBRS of August 06th 2020) and each participant included in the study signed a written consent form.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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