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MAGNITUDE OF UNINTENDED PREGNANCY AND ITS ASSOCIATED FACTORS AMONG FEMALE SEX WORKERS IN JIMMA TOWN, SOUTHWEST ETHIOPIA: A MIXED METHOD STUDY

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ABSTRACT

Background: Unintended pregnancy is defined by the World Health Organization (WHO) as a pregnancy which is not wanted and/or not planned at the time of conception. Globally, unintended pregnancies are major public health problems among key population such as youths and Female Sex Workers (FSWs) with high rate of sexual risk behavior.

Objective: The objective of the study was to assess magnitude of unintended pregnancy and its associated factors among female sex workers in Jimma town, southwest Ethiopia, 2022.

Methods: Institutional based explanatory sequential study design was conducted. For quantitative study, participants were selected conveniently at confidentiality clinics in Jimma town from June 09 – July 30, 2022. Binary logistic regression model was used to identify variables associated with unintended pregnancy. For qualitative study, in-depth interviews were conducted until saturation of ideas occurred. Data were analyzed manually using thematic approach and the results were used to support the quantitative findings.

Result: The magnitude of unintended pregnancy among female sex workers was 23.8% (95% CI: [19.3%, 28.6%]). FSWs whose age ranges ≤24 years had 4.5 times more likely to have unintended pregnancy compared to those whose age ranges ≥30 years. Those who ever had no formal education had 6.7 times more likely compared to those who completed high school grades. FSWs whose average monthly income range were ≥6,000 ETB had 4.2 times more likely to have unintended pregnancy compared to those whose average monthly income range were <3,000 ETB. FSWs who ever heard about emergency contraceptive were 70% less likely to have unintended pregnancy than those who didn't. The results of qualitative IDIs were summarized alone for third objective as the services that need to be included being provision of reversible long acting family planning (LAFP) and comprehensive abortion care services (CAC) while the results for second objective were used to support the quantitative findings.

Conclusion*:* Significant magnitude of unintended pregnancy was found among FSWs. Age, educational status, monthly income, male condom use as family planning method, Knowledge of emergency contraceptive and duration of sex work were positively associated with unintended pregnancy. There were needs for LAFP and CAC to be included in services provided by confidentiality clinics.

Key words: Female sex workers, unintended pregnancy, Abortion, Contraceptive.

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ACRONYMS/ABBREVIATIONS

CI ----------Confidence Interval

DC ----------Data Collector

ECPs ---------- Emergency Contraceptive Pills

EDHS ---------- Ethiopian Demographic and Health Survey

FGA ---------- Family Guidance Association

FIGO ---------- International Federation of Obstetricians and Gynecologists

FSWs ---------- Female Sex Workers

HIV ---------- Human Immune deficiency Virus

IDI ---------- In Depth Interview

IQR ---------- Inter Quartile Range

KP ---------- Key Population

LMICs ---------- Low and Middle-Income Countries

MMR ---------- Maternal Mortality Ratio

PI ---------- Principal Investigator

SNS ---------- Social Networking Strategy

SSA ---------- Sub-Saharan Africa

SRH ---------- Sexual and Reproductive Health

STIs ---------- Sexually Transmitted Infections

TOP ---------- Termination of Pregnancy

WHO ---------- World Health Organization

1. INTRODUCTION

1.1. Background

The World Health Organization (WHO) defines an unintended pregnancy as one that was not desired and/or planned at the time of conception. The same definition of an unplanned pregnancy is given by the International Federation of Obstetricians and Gynecologists (FIGO), who define it as a pregnancy that was either unwanted or mistimed at the moment of conception. When having children or having additional children is not intended, an undesired pregnancy happens. On the other hand, inappropriate pregnancies happen earlier than anticipated (1).

Unwanted pregnancies are a major public health concern around the world because of the detrimental consequences they have on women and their families in particular, the resources of the health system, and the general public. Unwanted pregnancies are a huge public health concern worldwide, particularly for some critical populations like young people and female sex workers (FSWs) who engage in high levels of sexual risk behavior (2).

Women who perform sex acts for pay or to increase their income are referred to as female sex workers (FSWs). They might be categorized as being based in a hotel or pub, on the street, or at home. The increase in demand for sex workers may have been influenced by urbanization, poverty, political turmoil, food insecurity, and other factors. In Ethiopia, selling sex to women is neither illegal nor acknowledged as a legitimate profession (3–5).

For many female sex workers (FSWs), who typically have dependents to support and for whom pregnancy may increase financial dependency on sex work and add to already high levels of stigmatization, unintended pregnancy is a top priority concern. When it comes to FSW-specific services, family planning is frequently overlooked because the majority of the attention has been on preventing the human immunodeficiency virus (HIV) and other sexually transmitted illnesses (STIs). FSWs have the same reproductive rights as all women, but they frequently don't get the care they need when it comes to getting pregnant, just like other marginalized groups that have historically been forced into having children (6).

Family planning is the most effective method for reducing maternal mortality from unintended pregnancies as a strategy, yet Ethiopia has the highest maternal death rate (420 deaths/100,000

live births) and the highest proportion of unmet family planning needs (22%). The Ethiopian government, however, has created a national reproductive health policy to address the issue, which places emphasis on minimizing unplanned pregnancies by increasing contraceptive utilization (66%), although the present rate of contemporary family planning use was extremely low (35%)(7).

Due to their lack of empowerment and inability to negotiate condom use, sexual workers are at a greater risk of having poor sexual and reproductive health (SRH). Since little is known about pregnancies happening in FSWs, SRH services are scarce for this particular demographic (8).

Women who engage in commercial sex in Sub-Saharan Africa face a significant risk of sexual and physical assault, unintended pregnancies, and STDs (STIs). The vulnerability of FSWs to STIs, especially infection with the Human Immunodeficiency Virus (HIV), is typically the main focus of past research and interventions on FSWs. As a result, the concerns regarding FSWs susceptibility and hazards associated with unintended pregnancy have received little attention. Following an unexpected pregnancy, there may be a high risk of developing other health issues, such as STIs, HIV, and unsafe abortions, which could increase the morbidity and mortality of FSWs. Given that FSWs are the primary spreaders of venereal diseases, society as a whole could also reduce its high risk of contracting infections (2).

1.2. Statements of the problems

Unintended pregnancy has been a major or troubling public health and reproductive health issue imposing a great and appreciable adverse consequence to the mother, child, and the public in general (9). Between 2015 and 2019, there were 121 million unintended pregnancies, leading to a global average of 64 unintended pregnancies per 1000 women aged 15 to 49 years. About 61% of unintended pregnancies resulted in abortion, resulting in a global abortion rate of 39 abortions per 1,000 women aged 15 to 49. Unintended pregnancies account for around 44% of all pregnancies globally, with around 55% of unintended pregnancies in developed countries ending in abortion (10). Also unintended pregnancies are major public health problems among key population such as youths and Female Sex Workers (FSWs) with high rate of risky sexual behavior (2).

In sub-Saharan Africa (SSA), there was 33.9% unintended pregnancy rate (10). Similarly, women who are engaged in commercial sex are at high risk of physical and sexual violence, unwanted pregnancy, and Sexually Transmitted Infections (STIs). Unintended pregnancies of a sizable extent were discovered among FSWs (11). In Ethiopia an estimated prevalence of unintended pregnancy was 26.6%(9). Among FSWs it accounts for 28.6% of which 59.6% ended with abortion (2).

Mothers with unintended pregnancy are at risk of many devastating complications such as induced abortion to the extent of causing maternal death, higher crime rates, maternal depression, and parenting as well as family stress, reduced workforce efficiency, and reduced academic achievement (9). Female sex workers are more vulnerable to the risks of unwanted pregnancy, abortion, and its effects (12,13).

In 2015, there were 210 maternal fatalities worldwide for every 100,000 live births, and of the 210 million pregnancies that take place annually, 40% are thought to be unintended. Around 99% of maternal deaths worldwide in 2015 occurred in developing nations, and an estimated 36% of the 182 million pregnancies that take place each year are unintended. Around 66% of maternal deaths worldwide occurred in Sub-Saharan African nations alone in 2015, and more than a quarter of the 40 million pregnancies that take place each year among all women of reproductive age are unplanned. According to the 2016 Ethiopian Demographic and Health Survey (EDHS) report, the MMR was 412 per 100,000 live births in Ethiopia, and 25% of pregnancies were unplanned (14).

Prevalence of unintended pregnancy was still high in both general and more at risk population like FSWs. According to earlier research, the prevalence of unattended pregnancies among FSWs was significantly influenced by socio-demographic, reproductive health, behavioral, knowledge and practices of contraception, and characteristics connected to health services (11,13,15).

There were limited information about magnitude and factors associated with unintended pregnancy among FSWs in Ethiopia; and the existing one mainly focused on individual level factors. Therefore, this study was important to look on current prevalence and factors associated

with unintended pregnancy among female sex workers including both individual level and health service related factors through method triangulation.

1.3. Significance of the study

This study was important to look on current prevalence and factors associated with unintended pregnancy among FSWs including health service related factors through method triangulation. It will provide a base line information for local planners for evidence based interventions; and policy and decision makers at different levels for this specific group of population. It will also be an input for feature researchers to conduct other community based analytical study to identify determinants of unintended pregnancy among this population.

2. LITERATURE REVIEW

2.1. Magnitude of unintended pregnancy among female sex workers

Unwanted pregnancies are a major global public health issue. Female sex workers are more vulnerable to the risks of unwanted pregnancy, abortion, and its effects. According to a cross-sectional study done in Cambodia, FSWs have a high proportion of unintended pregnancies that resulted in induced abortions (12).

FSWs live untidy, unpleasant lives and are subject to serious social and bodily harm as a result of the circumstances they are in. Suicide, addiction, STDs, unintended pregnancies, and unsafe abortion are some of the problems this stratum faces. According to a phenomenological qualitative study on FSWs in Iran, FSWs occasionally have to engage in unwelcome and risky sex. When women get pregnant, they frequently abort the child; if they give birth, they donate the child to centers run by the Iranian Welfare Organization; in certain circumstances, they even sell the child. Abortions are risky and seriously damage women because they are performed without taking into account hygiene precautions (16).

For many female sex workers (FSWs), who typically have dependents to support and for whom pregnancy may increase financial dependency on sex work and add to already high levels of stigmatization, unintended pregnancy is a top priority concern. Many women in low- and middle-income countries (LMICs) experience unintended pregnancies, which can have a serious negative impact on mother and child health (3–5).

According to a systematic review of contraceptive use among sex workers in North America, a high risk of contraceptive failure and unintended pregnancy is associated with sex workers' reliance on partner-dependent contraception, such as condoms, as well as factors that restrict their reproductive agency over contraceptive use and decision-making. The incidence of unwanted pregnancy among female sex workers was high overall and, based on available data, greater than the general population, according to a systematic review and meta-analysis on low and middle-income nations(6,17).

A significant group of people at risk for HIV, STDs, and unintended pregnancy are female sex workers. 5% of women self-reported being pregnant at the clinic, according to a descriptive

cross-sectional survey on clinical services carried out in Rwanda. Another study carried out in Uganda and Kenya revealed that correspondingly 43.8% and 24% of FSWs experienced an unwanted pregnancy (11,15,18).

According to a qualitative study carried out in Tanzania, sex work results in unwanted pregnancy among female sex workers. According to FSWs, sex workers find it difficult to negotiate continuous condom use, avoid seeking medical care out of fear of social stigma, forget to pick up their monthly supplies owing to inconvenient clinic hours, or neglect their contraception tablets when drunk (15).

Study conducted in Cameroon indicated that among 2,255 FSWs, 57.6% reported history of unintended pregnancy and 40.0% reported prior TOP. Another study conducted in Zambia also revealed that, 84.1% of FSWs had been pregnant at least once, and among those 61.6% had an unplanned pregnancy, and 47.7% had a terminated pregnancy. Study conducted in Mekelle city, Ethiopia indicated that the magnitude of unintended pregnancy among female sex workers was 28.6%. During that period, 59 women had abortion which represents three-fifths, (59.6%), of those who had unintended pregnancies, and 17.1% of all female sex workers (2,13,19).

2.2. Factors associated with unintended pregnancy among female sex workers

2.2.1. Socio-demographic and socio-economic factors

Women's education plays a key role in understanding their fertility and behavior related to it. Studies done in Benin and Zambia revealed a strong correlation between female sex workers' educational status and unwanted pregnancy (8,13).

A study done in Uganda also found a correlation between past unplanned pregnancies and FSWs educational status and place of employment. According to a study done in Malawi, an unwanted pregnancy was highly correlated with the FSW's location of birth. Age was a key factor in a study of FSWs in Kenya and Zambia that found it to be connected with unwanted pregnancy (11,13,15,20).

2.2.2. Reproductive health factors

According to a study conducted in Ethiopia among the general population, unwanted pregnancy is related to the number of living children. According to a community-based cross-sectional

study carried out in Mekelle, Ethiopia, female sex workers who had previously had abortions had odds of unwanted pregnancy that were, respectively, 3.1 and 15.6 times greater than those of their counterparts (2,21).

2.2.3. Behavioral related factors

A significant hurdle to FSWs using dual methods of contraception is their lack of emotional and professional relationship control. According to research conducted in Malawi and Benin, FSWs who reported inconsistent condom use, longer periods of sex work, prior HIV testing, having a boyfriend and forgoing condom use with him were strongly linked to higher pregnancies (8,20). Few women take hormonal contraceptives, despite the fact that the majority of couples want to keep their family sizes small. Due to their inability to negotiate condom use, inconveniences with clinic hours, or skipping contraceptive pills while drunk after drinking, the majority of FSWs used condoms inconsistently, which resulted in unwanted pregnancies (22,23).

According to research done in Uganda, Kenya and Ethiopia having an emotional partner, using conventional contraception, using only condoms, having a steady partner, using drugs or alcohol during a date, and using traditional contraception are all positively associated with having an unintended pregnancy in the past (2,11,15).

2.2.4. Knowledge and practices of contraceptive methods

Unintended pregnancy was strongly correlated with ever using modern contraceptives for pregnancy prevention and with ever using modern contraceptives. The majority of participants were aware of emergency contraceptive pills (marketed under the name Post pill) and thought they knew where to get them in case of necessity. Participants' perceptions of the efficacy of this postictal technique weren't always accurate, though. Most people thought that emergency contraceptive tablets required to be used within 24 or 72 hours of unprotected intercourse, however one woman said that they were only effective for the first three hours following unprotected sex (11,24).

Where the rate of unintended pregnancies is on the rise, emergency contraceptive pills (ECPs) are a frequently utilized contraceptive method. In SSA, a scoping analysis indicated that ECs, which are frequently accessed through pharmacies in the private sector, have become crucial in preventing unintended births (25,26).

A significant hurdle to FSWs using dual methods of contraception is their lack of emotional and professional relationship control. According to a mixed-method study carried out in Mombasa, Kenya, using condoms solely, being younger, having an emotional partner, and traditional or no contraception were all independent predictors of unwanted pregnancy(15).

2.2.5. Health service related factors

Elevated risk is exacerbated by factors at several levels, such as structural contexts and interpersonal dynamics. There has been evidence of an unmet need for contraception among FSW in a number of sub-Saharan African settings. Pregnancy termination or unwanted pregnancies may result from a lack of access to contraceptive services. A study done in Zambia and Uganda found that having condoms available at work increased the use of them as a family planning tool and the use of hormonal contraceptives, which reduced unintended pregnancy and pregnancy termination (11,13).

Due to the stigma associated with sex work, their difficulties to obtain condoms, and their incapacity to access healthcare when convenient, FSWs have obstacles to starting and maintaining contraceptive use. FSWs reported that sex work hinders good contraceptive behavior because sex workers felt unable to negotiate consistent condom use, avoided health services due to stigma, missed monthly contraceptive supplies because of inconvenient clinic operating hours, or skipped contraceptive pills when intoxicated after drinking alcohol, according to a study conducted in Tanzania(23).

2.3. Services expected from and being given by confidentiality clinics

2.3.1. Services expected from confidentiality clinics

Female sex workers (FSWs) are regarded as a significant population segment globally. FSWs noted difficulties with accessing SRH care at public health facilities. According to a study done in South Africa, certain public health care providers make it difficult for people to get treatments because they won't treat FSWs as patients in a non-discriminatory, impartial manner. They fail to address the sexual risk factors that FSWs must deal with and instead allow their own moral judgments to obstruct their core function as care providers (27).

Female sex workers need access to comprehensive SRH prevention strategies because their various sexual partners, irregular condom usage, and elevated risk for HIV and other STIs also put them at risk for unwanted pregnancies and abortion. According to a study done in Kenya, FSWs frequently seek to avoid future pregnancies but encounter difficulties starting and maintaining usage of more efficient contraceptive methods; the majority rely solely on condoms to prevent HIV and pregnancy (28).

2.3.2. Services being given by confidentiality clinics

The non-governmental health and advocacy organizations have done this in a way that fosters confidence between FSWs and mobile health care providers by offering SRH services to FSWs through their mobile facilities and adopting the peer approach. FSWs have access to specialized treatments, tools for prevention, and health information. According to a study done in South Africa, several FSWs felt happiness and a sense of agency that they developed via their interactions with healthcare professionals from these support organizations. They had the impression that they could speak honestly and frankly with these medical professionals without worrying about being judged (27).

According to a study done in Kenya, peer educators are more approachable to FSWs, who can quickly find them and schedule appointments with them at convenient times. Peer educators can also readily follow up with FSWs (28).

Conceptual Framework

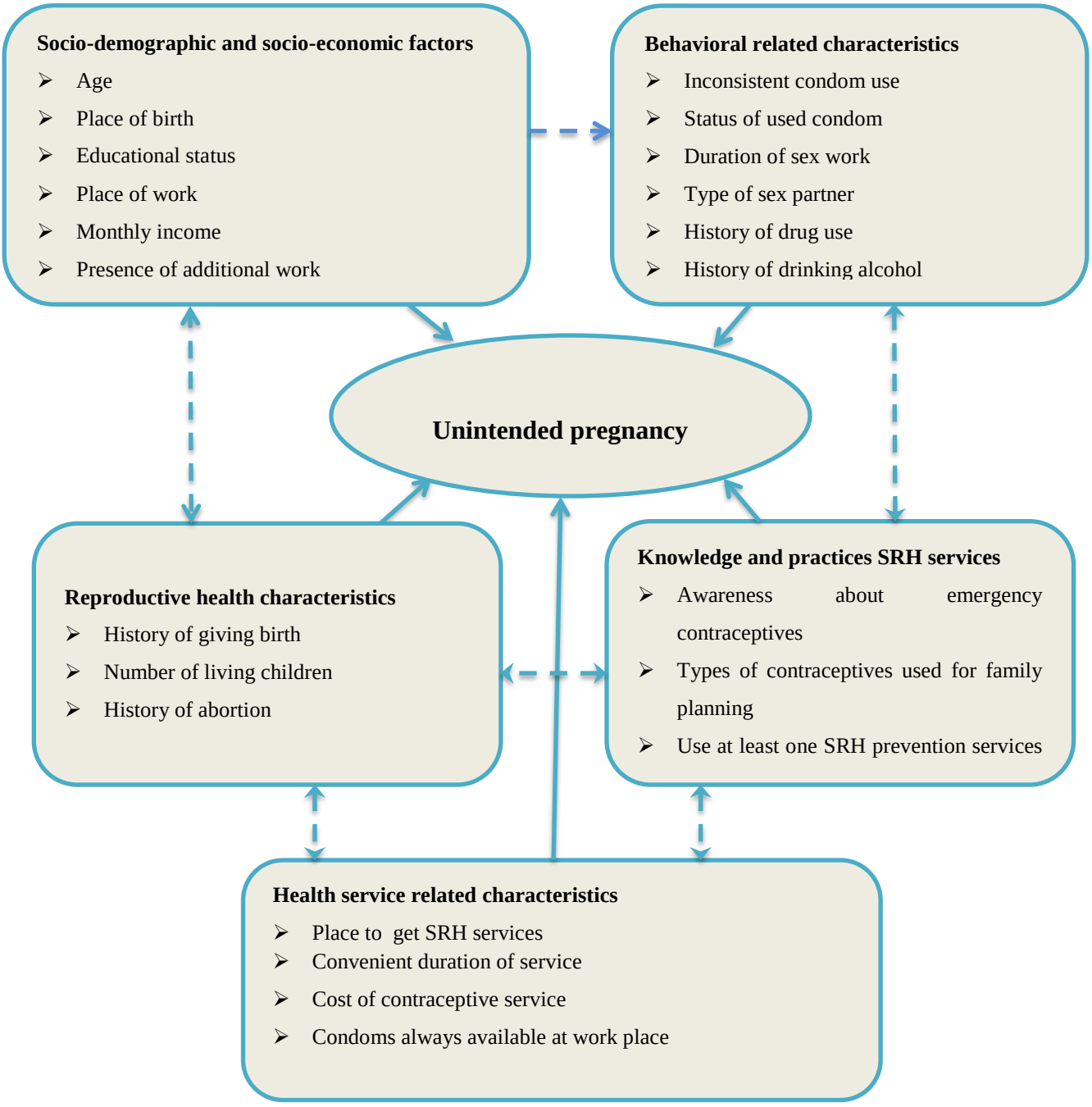

Figure 1: Conceptual frame work on factors associated with unintended pregnancy among female sex workers (drawn after reviewing different literatures) in Jimma town 2022 (2,11,15).

3. OBJECTIVE

3.1. General Objective

- To determine magnitude and factors associated with unintended pregnancy among female sex workers in Jimma town, southwest Ethiopia, 2022

3.2. Specific Objectives

- To determine magnitude of unintended pregnancy among female sex workers in Jimma town, southwest Ethiopia, 2022
- To identify factors associated with unintended pregnancy among female sex workers in Jimma town, southwest Ethiopia, 2022
- To identify Services expected from and being given by confidentiality clinics found in Jimma town, southwest Ethiopia, 2022

4. METHOD AND MATERIALS

4.1. Study area and period

The study was conducted in Jimma town. Jimma town is one of the administrative towns of Oromia region and center for Jimma zone which is 354 km far from Addis Ababa the capital of Ethiopia in the south west direction. The town has 17 kebeles (13 urban and 4 rural) with a total population of 224,000 (Male=112,896 and Female=111,104) and 3,847 FSWs with 5 hospitals (2 public and 3 private), 4 health centers, 20 private clinics and 4 non-governmental organizations (NGOs) based FSWs confidentiality clinics. The study was conducted from June 09 to July 30 / 2022.

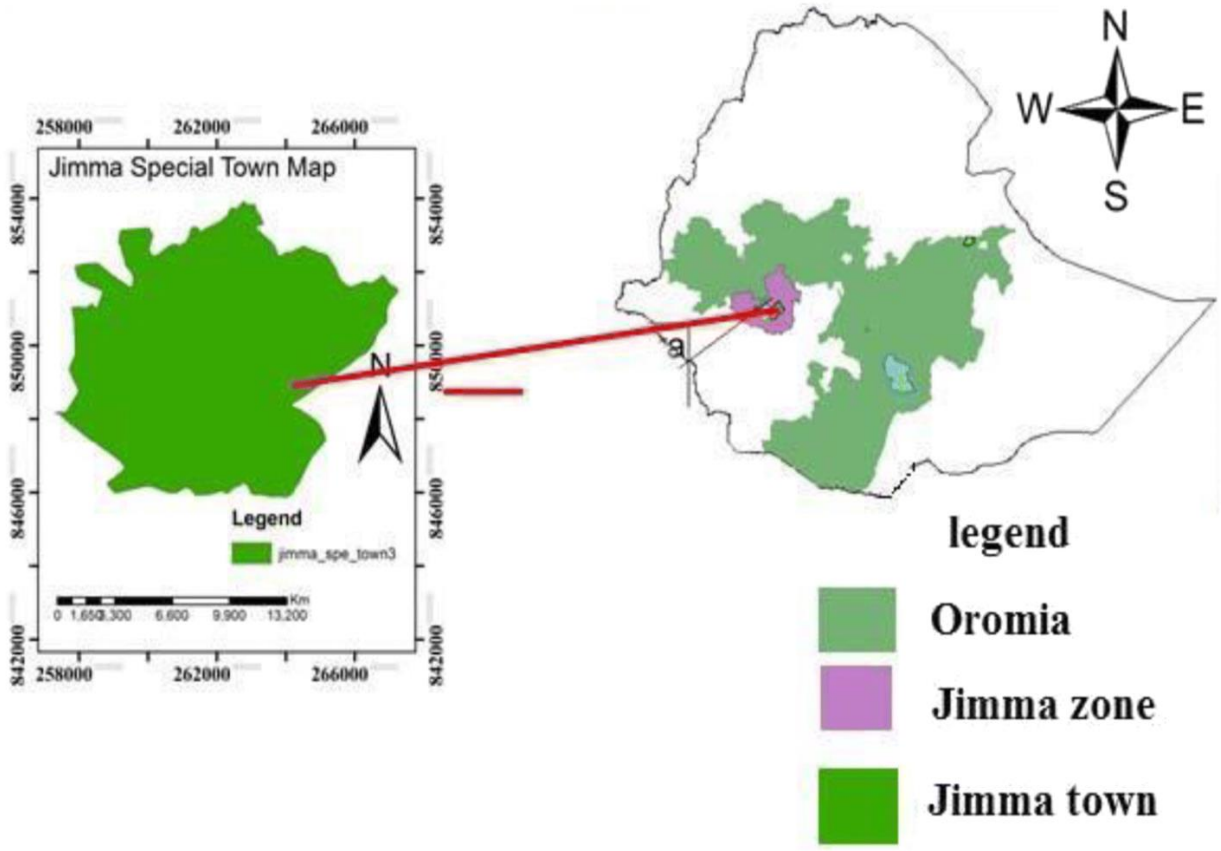

Figure 2: Map of Jimma town built using an empty map frame freely and openly available at https://doi.org/10.3390/geosciences10030094 and modified using Microsoft® Word for Office version 2010 used for study conducted on Unintended pregnancy and associated factors among FSWs in Jimma town,August,2022.

4.2. Study design

Institutional based explanatory sequential study design was conducted.

4.3. Population

4.3.1. Source population

All female sex workers who lived in Jimma town were the source population.

4.3.2. Study population

Study populations were female sex workers visiting confidentiality (KP/SNS) clinics found in Shenen gibe hospital, Jimma HC ad Jimma higher 2 HC of Jimma town.

4.3.3. Inclusion and exclusion criteria

4.3.3.1. Inclusion criteria

Female sex workers lived in the town for at least 6 months and above were included in this study.

4.3.3.2. Exclusion criteria

Female sex workers those are greater than 49 years old were excluded from the study.

4.4. Sample size determination and Sampling technique

4.4.1. Sample size determination

The sample size was calculated for each specific objectives separately and the largest was taken as representative.

4.4.1.1. Sample size determination for the first objective

The sample size of unintended pregnancy among FSWs was determined using the single population proportion formula with p= 0.286 (proportion of unintended pregnancy among FSWs in Mekelle(2)) and 5% expected margin of error (d), 95% CI and 10% non-response that yielded a sample by Single population Formula.

$$\mathbf{n} = \left(z_{\frac{\alpha}{2}}\right)^2 \frac{\boldsymbol{p}(\mathbf{1}-\boldsymbol{p})}{\boldsymbol{d}^2}$$

Where, n= is sample size,

d= acceptable margin of error (precision of measurement),

Zα/2= is the standard variant (1.96) which corresponding to 95% confidence level

P=proportion of unintended pregnancy among female sex workers.

$\mathbf{n} = (\mathbf{1.96})^2 \frac{\mathbf{0.286\ (1-0.286)}}{(\mathbf{0.05})^2}$ **= 314** and 10% of non-response rate was considered to give the final maximum sample size of **346** for quantitative study and 10 participants for qualitative in-depth interview.

4.4.1.2. Sample size determination for the second objective

Table 1: Determination of Sample size using variables from literatures to get the maximum sample size using EPI-info version7 in Jimma town 2022

S. N	Variables	CI (%)	Power (%	% of unexposed to outcome	% of exposed to outcome	AOR	Sample	10% of the sample	Final Sample size	Reference
1	**Age**									
	≤24 years	95	80	11.6	28.2	3.0	202	20	222	(15)
	25-29 years	95	80	11.6	24.7	2.5	300	30	330	(15)
2	**Steady Partner**	95	80	23.5	46.9	2.87	146	15	161	(2)
3	**Drug user**	95	80	22.7	44.0	2.68	170	17	187	(2)

4.4.2. Sampling technique and procedures

Because FSWs were highly marginalized group it was not possible to access them easily. Therefore it was difficult to use probability sampling to select them as study participants. Because of that non-probability sampling was appropriate to use. In this study one of the non-probability samplings; convenient sampling was applied to get the study participants at confidentiality clinics found in Shenen gibe hospital, Jimma HC and Jimma higher 2 HC of Jimma town. There are four KP/SNS clinics in Jimma town stablished in Shenen Gibe hospital, Jimma health center, Jimma higher two health center and Family Guidance Association. The centers used peer-outreach navigators and client driven detection of other clients through social networking strategy (SNS). The centers had ex-FSWs recruited peer-outreach navigator and health workers trained on HIV and other STIs counseling and testing services supported by non-

governmental organizations. Therefore our study used these centers as a convenient place to get the study participants and collect data through exit interview.

4.5. Data Collection Procedures

4.5.1. Data Collection Instruments

The data was collected using pre-tested structured interviewer-administered questionnaire adapted from other relevant literatures. The questionnaire was developed to obtain relevant information on magnitude and determinants of unintended pregnancy among female sex workers and the components were Socio-demographic and socioeconomic factors, reproductive health characteristics, behavioral related characteristics, knowledge and practice on SRH services and health service related factors. The tool was prepared in English and translated to Afan Oromo and Amharic languages then translated back to English language to check for consistency. Finally, the Afan Oromo or Amharic version of the questionnaire was used as participants' preferences for data collection. For qualitative study guiding questions were developed based on objectives intended to measure and the interview were tape recorded.

4.5.2. Personnel

The data was collected by six BSc nurses who were experienced in data collection procedures and. The activity was supervised by public health supervisor and the principal investigator throughout the data collection process. For qualitative study interview was conducted by the principal investigator.

4.5.3. Data Collection technique

The data were collected at exit point of confidentiality clinics through an interviewer administered questionnaire for quantitative study and for qualitative study in depth interview of pre-selected experienced were conducted until saturation of ideas occurred.

4.6. Study variables

4.6.1. Dependent variable

- Unintended pregnancy

4.6.2. Independent variable

4.6.2.1. Socio-demographic and socio-economic factors

- Age
- Place of birth
- Educational status
- Usual place of work
- Monthly income
- Presence of additional work

4.6.2.2. Reproductive health characteristics

- ✓ History of giving birth
- ✓ Number of living children
- ✓ History of abortion

4.6.2.3. Behavioral related characteristics

- Consistence condom use
- Status of used condom
- Duration of sex work
- Type of sex partner
- History of drug use
- History of drinking alcohol

4.6.2.4. Knowledge and practice on contraceptive

- Awareness about emergency contraceptives
- Types of modern contraceptives used
- SRH prevention services provider centers during sex work

4.6.2.5. Health service related factors

- Preferred place to get SRH services
- Convenient duration of service
- Cost of contraceptive service
- Client satisfaction with service provision in confidentiality clinics

4.7. Operational definition and definition of terms

Risky sexual practice-Having sexual contact history with causal partners, multiple regular partners or experiencing unprotected sex (having sex without condom or without any method of pregnancy prevention) or all the stated definitions.

Sexual and reproductive health services: Promotive and preventive services regarding STIs and Unintended pregnancy preventions like counselling on risky sexual practices and provision of preventive means for sexual contacts like condom distribution for STIs and reliable family planning methods to prevent unintended pregnancy.

Female Sex Workers-Those who are sex workers for money in drinking establishments, night clubs, drink houses, on the street and at their homes.

Sexual contact-Was defined as having penetrative penile-vaginal sexual intercourse.

Condom breakage- Was defined as breaking of a condom during sexual intercourse.

Condom slippage- Was defined as slipping-off of a condom from a penis completely during sexual intercourse.

Consistent condom use- is defined as using condom at every sexual intercourse.

Regular sexual partner- was defined as spouse or co-habiting sexual partner.

The number of sexual partner-Refers to the number of spouse or co-habiting sexual partner.

Non-paying sexual partner- Was defined as a partner who is not paying money or other materials to have sex because of long duration partner or other reason.

Drug use: Taking psycho-active substances (like Khat, Hashish and others) at least once a day to be alert or to perform daily activities.

Drinking alcohol: Drinking any type of alcohol for recreational purpose on daily bases the source of money being either sex partner or self.

4.8. Data analysis procedure

For quantitative study; collected data were entered into Epi data version 3.1 and then exported to SPSS version 26 for analysis. Descriptive statistics was computed for continuous variables using median and inter quartile ranges while frequency and percentages were used for categorical variables. Binary logistic regression was used to identify variables that have an association with the unintended pregnancy. Variables with p-value less than 0.25 in bi-variable analysis were entered into a multi-variable analysis for controlling confounding effect. The association

between covariates and outcome variable was ascertained based on an adjusted odds ratio with 95%CI and p-value. A p-value of ≤0.05 was considered statistically significant. Finally the result of the study was presented in tables and graphs.

For qualitative part; qualitative data was analyzed manually by using thematic approach. The recorded interviews were transcribed verbatim in its primary language interviewed with; after which it was translated to English language by principal investigator (PI) after listening repeatedly. Each transcript was carefully screened and coded. Those codes were in turn grouped into major themes representing factors associated with unintended pregnancy such as Socio-demographic and socioeconomic factors, Reproductive health characteristics, Behavioral related characteristics, knowledge and practice on SRH services and Health service related factors. At last it was triangulated with quantitative data findings.

4.9. Data quality management

One day training was given for data collectors and supervisor on study objectives, data confidentiality, the contents of the questionnaire in detail, and the data collection method by principal investigator. Then pretest was conducted on 5% of the sample FGA clinic. After the pretest had been conducted the result was reviewed by principal investigator together with the data collectors and supervisors. Then some missed variables were added in the tool after reviewing the tool. In addition to that some questions which were difficult or made the pretest participants confused were rewritten in the way that the participants can easily understand and the flow of the questions was also revised and modification on skip rule was made. For qualitative study guiding questions were developed based on objectives intended to measure and the first interview was used as pre-test. Additionally reserve tape recorder was prepared to prevent for possible interruption due to energy failure and quit room was selected in order to prevent background noise during tape recording.

4.10. Ethical Consideration

Ethical clearance and permission letter was obtained from Jimma University institutional review board and submitted to Jimma town health office and FSWs peer-navigator centers. At last, written and oral informed consent was taken from FSWs before data collection was done for quantitative and qualitative respectively. Confidentiality of information and privacy of

participants was assured for all the information provided, to preserve the confidentiality that the data will not be exposed to the third party except researchers.

4.11. Dissemination of the results

The result of this study will be submitted to Jimma University (JU), institute of health, faculty of public health, departments of Epidemiology. It will also be disseminated to Jimma town health office and Confidentiality (KP/SNS) clinics found in Jimma town and finally published in peer reviewed scientific journal.

5. RESULT

5.1. Socio-demographic characteristics

A total of 341 FSWs participated in the study and the response rate was 98.6%. More than one third, 133 (39.0%), of the respondent were ≥30 years. One hundred forty nine (43.7%) of the FSWs reported that Hotel/Restaurants is used as usual working place. The median income per month of FSWs was 3,000 Ethiopian birr (ETB) (inter quartile range (IQR) = 2500, 5000) and most of them, 322 (94.4%) had willingness to stop sex work. (Table 2)

Table 2: Socio-demographic and economic characteristics of female sex workers in Jimma town, south west Ethiopia, 2022.

Characteristics	Frequency (n)	Percent (%)
Age of participant (n=341)		
≤24 years	96	28.2
25-29 years	112	32.8
≥30 years	133	39.0
Ethnic group of the participant (n=341)		
Oromo	111	32.6
Amhara	99	29.0
Dawro	89	26.1
Gurage	24	7.0
Others	18	5.3
Religion of the participant (n=341)		
Orthodox	140	41.1
Muslim	118	34.6
Protestant	83	24.3
Relationship status of the participant (n=341)		
Had regular sexual partner	36	10.6
Had no regular sexual partner	305	89.4
Educational status of the participant (n=341)		
No formal education	82	24.0
Elementary(1-8) grades	121	35.5

High school(9-12) grades	138	40.5
Place of birth (n=341)		
Urban	91	26.7
Rular	250	73.3
Arrived from out of Jimma (n=341)		
Yes	283	83.0
No	58	17.0
Reason for leaving birth place (n=283)		
Searching for better life	200	70.7
Fear of early marriage, war or instability	32	11.3
Family collapse	51	18.0
Usual work place (n=341)		
On street	149	43.7
Hotel/Restaurants	57	16.7
Open house	135	39.6
Additional work (n=341)		
Yes	254	74.5
No	87	25.5
Types of additional work (n=254)		
Daily laborer	39	15.4
Micro and small activities	60	23.6
Waitress	155	61.0
Average monthly income in ETB (n=341)		
<3000	128	37.5
3,000-5,900	102	29.9
≥6,000	111	32.6
Willingness to stop sex work (n=341)		
Yes	322	94.4
No	19	5.6

5.2. Reproductive health characteristics

Almost half, (53.1%), of the respondents were not married. One hundred forty eight (43.4%), of the respondents had history of abortion before two years. Of 132 (89.2%) safe abortion performed 75 (56.8%) were in private health facilities. (Table 3)

Table 3: Reproductive health related characteristics of female sex workers in Jimma town, south west Ethiopia, 2022.

Characteristics	Frequency (n)	Percent (%)
Ever married (n = 341)		
Yes	160	46.9
No	181	53.1
Age at first marriage in years (n = 160)		
Less than or equal to 18 years old	51	31.9
Greater than 18 years old	109	68.1
Age at first sex in years (n = 341)		
Less than or equal to 14 years old	65	19.1
15-17 years old	211	61.9
Greater than 18 years old	65	19.1
Ever got pregnant (n = 341)		
Yes	221	64.8
No	120	35.2
Total number of pregnancy (n = 221)		
1 time	71	32.1
2 times	90	40.7
≥3 times	60	27.1
Ever gave birth before two years (n = 221)		
Yes	169	76.5
No	52	23.5
Number of living children (n = 169)		
1 child	58	34.3
2 children	86	50.9

≥3 children	25	14.8
Ever had abortion before 2 years (n = 221)		
Yes	148	67.0
No	73	33.0
Type of abortion performed (n = 148)		
Safe	132	89.2
Unsafe	16	10.8
Place of abortion service (n = 132)		
Public health facility	57	43.2
Private health facility	75	56.8
Ever got raped within the past 2 years (n = 341)		
Yes	55	16.1
No	286	83.9
Pregnancy within the past 2 years (n = 341)		
Yes	97	28.4
No	244	71.6
Unintended pregnancy within the past 2 years (n = 341)		
Yes	81	23.8
No	260	76.2
Type of unintended pregnancy (n = 81)		
Unwanted	40	49.4
Unplanned	41	50.6
Reason for unintended pregnancy (n = 81)		
Condom breakage, slippage, in consistent condom use	25	30.9
Didn't use condom with steady partner	56	69.1
Outcome of unintended pregnancy (n = 81)		
Birth	16	19.8
Abortion	65	80.2

5.3. Behavioral related characteristics

The median duration of the respondents in sex work was 28 months (IQR = 14, 36). Lower coverage of consistent condom use was practiced with steady (9.5%) sexual partners while almost two thirds (65.4%) of the reason behind not using condom consistently being clients not happy. While all respondents drank different level of alcohol on daily basis; 46.3% ever used different types of drugs/substances in the past two years while they were in sex work. (Table 4)

Table 4: Behavioral related characteristics of female sex workers in Jimma town, south west Ethiopia, 2022.

Characteristics	Frequency (n)	Percent (%)
Do you know how to you use condom correctly? (n = 341)		
Yes	308	90.3
No	33	9.7
Who is responsible for condom provision? (n = 341)		
I my self	158	46.3
Sexual partner	183	53.7
Did you use condom in the past two years consistently? (n = 341)		
Yes	234	68.6
No	107	31.4
Reason for not using condom consistently (n = 107)		
Clients are not happy	70	65.4%
Clients pressure to pay more money, not knowing benefits of condom use	37	34.6%
Had non-paying partner (n = 341)		
Yes	224	65.7
No	117	34.3
Do you use condom with your non-paying partner? (n = 224)		
Yes	168	75.0
No	56	25.0
How often do you use condom with your non-paying partner? (n = 168)		
Always	16	9.5

Some times	152	90.5
Ever face condom breakage (n = 341)		
Yes	126	37.0
No	215	63.0
Measurement taken after condom breakage (n = 126)		
Tested for HIV at confidential STI clinic	31	24.6
Seek medical advice at health facility	33	26.1
Vaginal douche with soap	08	6.3
Get secret and kept quiet,	54	42.9
Had steady partner (n = 341)		
Yes	109	32.0
No	232	68.0
Why do you wish to have steady partner?(n = 109)		
For support me by money	107	98.2
To prevent me from physical violence	02	1.8
Do you use condom with your steady partner? (n = 109)		
Yes	55	50.4
No	54	49.6
How often do you use condom with your steady partner? (n = 55)		
Always	13	23.6
Sometimes	42	76.4
Duration of sex work in years (n = 341)		
≤ 24 Months	91	26.7
>24 Months	250	73.3
Do you drink alcohol? (n = 341)		
Yes	341	100.0
No	0	0.0
Do you use drug? (n = 341)		
Yes	158	46.3
No	183	53.7

5.4. Knowledge and practices of contraceptive methods

All respondents ever used modern contraceptives while 16.1% used male condom as family planning method. One hundred seventy four (51.0%) of the respondents had never heard about emergency contraceptive. Of respondents who had awareness on emergency contraceptive methods, only 70 (41.9%) of them reported that the methods can be taken within 72 hours after unsafe sex to prevent unintended pregnancy. While almost all (99.7%) of the respondents ever visited SRH service provision centers only 41.3% ever visited the confidentiality clinic before the current one. (Table 5)

Table 5: Knowledge and practices of contraceptive methods female sex workers in Jimma town, south west Ethiopia, 2022.

Characteristics	Frequency (n)	Percent (%)
Ever contraceptive used (n = 341)		
Yes	341	100.0
No	0	0.0
Do you know female condom? (n = 341)		
Yes	152	44.6
No	189	55.4
Ever used female condom(n=152)		
Yes	4	2.6
No	148	97.4
Reason for not using female condom (n=148)		
Not accessible	86	58.1
Not effective	62	41.9
Ever used male condom as family planning method (n = 341)		
Yes	55	16.1
No	286	83.9
Ever heard/know emergency contraceptive (n = 341)		
Yes	167	49.0
No	174	51.0

Emergency contraceptive ever used (n = 167)		
Yes	95	56.9
No	72	43.1
When can someone take emergency contraceptive after unprotected sex to prevent pregnancy? (n = 167)		
Within 12 hrs. of sexual intercourse	34	20.4
Within 24 of sexual intercourse	63	37.7
Within 72 of sexual intercourse	70	41.9
Use at least one SRH prevention services during sex work service provider centers before the current visit (n = 341)		
Yes	340	99.7
No	1	0.3
Use at least one SRH prevention services during sex work in confidentiality clinic before the current visit (n = 340)		
Yes	141	41.3
No	199	58.7

5.5. Health service related characteristics

Of 340 respondents who used to visit SRH service provision centers 59.1% preferred private health facility while 25.4% complained contraceptive price to be high. Almost nine out of ten (86.5%) ever got HIV test while; only 36 (10.6%) got hepatitis B virus test. Only 15(3.4%) of the respondents answered the presence of comprehensive SRH services which includes counseling and provision of family planning and pregnancy related services including STI/HIV while 32.8% were not satisfied with the services provided in confidentiality clinics. (Table 6)

Table 6: Health service related characteristics of female sex workers in Jimma town, south west Ethiopia, 2022.

Characteristics	Frequency (n)	Percent (%)
Preferred place to get SRH services before the current visit (n=340)		
Public health facility	139	40.9
Private health facility	201	59.1
Contraceptive price (n=340)		
Free	94	27.6
Fair	160	47.0
High	86	25.4
Ever got HIV test before current visit(n=340)		
Yes	294	86.5
No	46	13.5
Ever got hepatitis B virus test before current visit (n=340)		
Yes	36	10.6
No	304	89.4
Types of SRH service in confidentiality clinic (n = 341)		
Counseling and testing only about HIV	167	50.0
Counseling and testing on STI including HIV	159	46.6
Counseling and provision of family planning and pregnancy related services including HIV	15	3.4
Satisfaction status of the participants on services provided by confidentiality clinic (n = 341)		
Yes	229	67.2
No	112	32.8
Reason for not satisfied in services provided by confidentiality clinic (n=112)		
Inadequate service provision	93	83.0
Place of the confidentiality clinic	19	17.0

5.6. Magnitude of unintended pregnancy

In two years prior to the study period, 28.4% of the respondents reported to have pregnancy, of which 23.8% were unintended. (Figure 3)

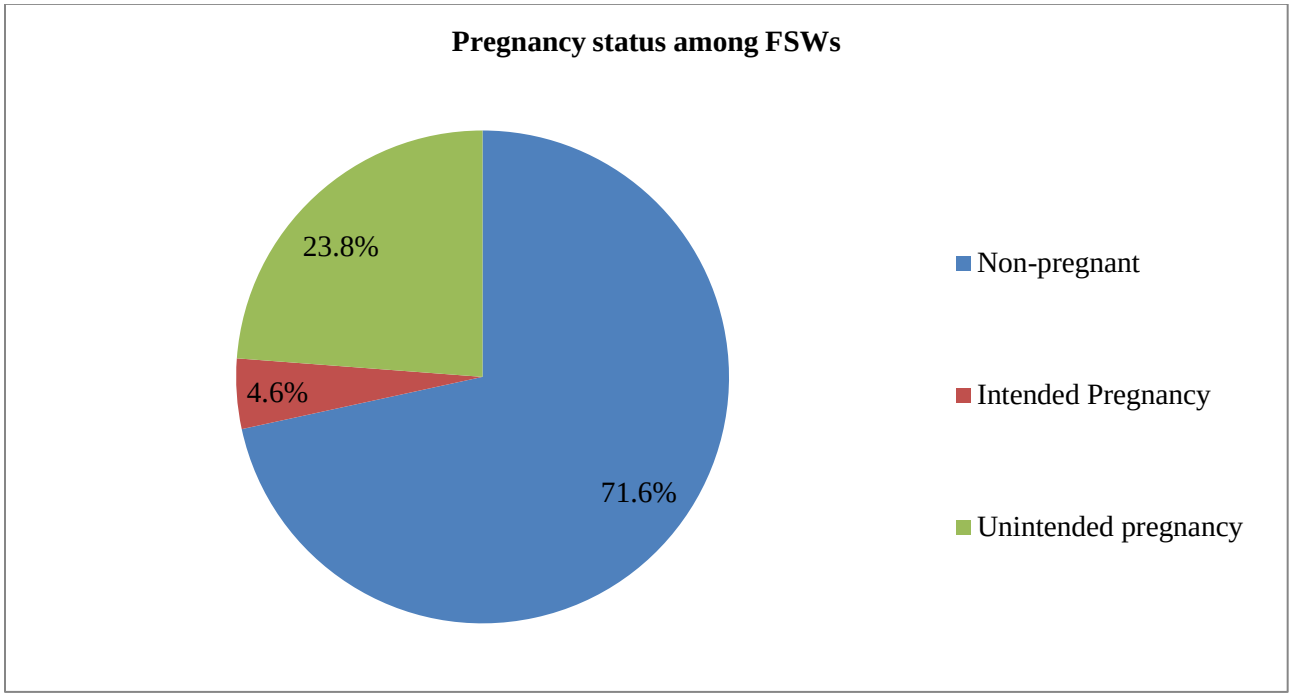

Figure 3: Pie chart showing the magnitude of unintended pregnancy among FSWs in Jimma town, August, 2022

5.7. Factors associated with unintended pregnancy

In bi-variable logistic regression analysis, factors found to be significantly associated with unintended pregnancy were:- age, educational status, place of birth, sex work duration, relationship status, Place of work, types of additional work, average monthly income, male condom use as family planning methods, awareness on emergency contraceptives and drug use. In the multi- variable logistic regression analysis, age, educational status, sex work duration, average monthly income, male condom use as a family planning methods, and awareness on emergency contraceptives were found to be independent predictors of unintended pregnancy (Table 7).

Relatively young age was characterized by lack of knowledge and experience in sex work in which FSWs face different problems. FSWs whose age ranges ≤24 years had 4.5 (AOR = 4.5, 95% CI: [1.5, 13.9]) times more likely to have unintended pregnancy.

A 16 year old female sex worker in her in-depth interview said: "I do not know any contraceptive method and were having sex with my partner's preference. Later on I got sick for which I went to health facility when they told me that I'm pregnant and I aborted it at home using anti-malaria drug with coca cola drink."

"When you are young you simply enjoy the life and do not think about problems following the sex work and you got unintended pregnancy or STIs." (A 27 year old FSW)

Education helps to think for possible problems that my happen and understand its solutions not to be re affected. FSWs who ever had no formal education had 6.7 (AOR = 6.7, 95% CI: [1.9, 23.4]) times more likely to have unintended pregnancy compared to those who completed high school (9-12) grades.

A 24 year FSW in her in-depth interview stated that: "I didn't have pregnant yet because I learnt up to grade 8 and I protect myself by using dual contraceptive which protect me both from STIs and menstrual bleeding which hinds my work. I also advise my friends to go to health facilities and get necessary advices and family planning of their choice; but they refuse to go, forget the time they take and appointment for family planning."

The primary intention of most female sex worker was to get money and they prefer money other than anything by any means. FSWs whose average monthly income range were ≥6,000 ETB had 4.2 (AOR = 4.2, 95% CI: [1.4, 13.1]) times more likely to have unintended pregnancy than those whose average monthly income range were <3,000 ETB.

A 25 year old FSW said that: "To grow up my child and help my parents as well I will have sex without condom if they paid me more. I had sex without condom with a man who I know that he has wife and he pay me a lot and even I wanted to have child to him and got pregnant. Later on I told him that I got pregnant and to have child from him but he refused to me because he didn't trust me that the pregnant is his and I decided to abort and I did it."

A 40 year old FSW said that: "As a sex worker you will be pessimistic no one is happy and even you will not fear for HIV/AIDS because you consider yourself as HIV positive until you tested and know your status. I used to have sex without condom with person who pays more money

*especially the so called baluka (wealthy person) who I love and got pregnant once when I missed pills. Later on I bleed for which and went to health facility where I told that I was pregnant and asked me if I want to keep the pregnancy but I choose to abort it.***"**

Using male condom as family planning was difficult as partners may force them to have sex without condom while others even want to break the condom especially during sexual orgasm. FSWs who use male condom as family planning methods had 8.3 (AOR = 8.3, 95% CI: [2.8, 24.7]) times more likely to have unintended pregnancy than those who did not.

A 38 year old FSW said that: "I used male condom as family planning at the beginning and I got pregnant after condom breakage. After seven month I want to abort but the doctors told me that it is impossible to abort at that gestational age for which I gave birth for female child without father."

Having knowledge of emergency contraceptive was very important especially not for routine use as a family planning but for time when someone can't get routine family planning method. FSWs who ever heard about emergency contraceptive were 70% less likely to have unintended pregnancy than those who did not (AOR = 0.3, 95% CI: [0.1, 0.7]).

A 18 year old FSW said that: "I was using male condom as a family planning methods and the partner forced me to have sex without condom and I got pregnant for which I took tablets from pharmacy and aborted at home."

A 38 year old FSW said that "I used to take injectable contraceptive method and missed the appointment date. When I go to health facility they told me not to give me the family planning until I will see my period and in between I forced to have sex without condom .Then I do not know about emergency contraceptive at that time and got pregnant after which I aborted ."

Every problem can be controlled through experience as the participants rose. FSWs whose duration of sex work were ≤24 months had 7.8 (AOR = 7.8, 95% CI: [2.9, 21.3]) times more likely to have unintended pregnancy than those who were >24 months.

A 40 year old key FSW said that: "As a beginner FSWs face different problems like inability to negotiate condom use and do not get access to family planning of their choice mostly during their first 1- 2 years the time during which they will have repeated abortion secondary to unintended pregnancy and affected with STIs until reached through peer outreach education.

Table 7: Factors associated with unintended pregnancy among female sex workers in Jimma town, south west Ethiopia, 2022.

Characteristics	Unintended pregnancy		COR (95% CI)	AOR (95% CI)
	Yes	No		
Age (n = 341)				
≤24 years	32 (33.3)	64 (66.7)	2.4 (1.3, 4.4)	**4.5 (1.5, 13.9)****
25-29 years	26 (23.2)	86 (76.8)	1.7 (0.9, 3.1)	1.2 (0.4, 3.7)
≥30 years	23 (17.3)	110 (82.7)	1.0	1.0
Educational status (n = 341)				
No formal education	44 (53.7)	38 (46.3)	18.8 (8.2, 43.4)	**6.7 (1.9, 23.4)****
Elementary(1-8) grades	29 (24.0)	92 (76.0)	3.7 (2.0, 6.7)	2.0 (0.7, 6.0)
High school(9-12) grades	8 (5.8)	130 (94.2)	1.0	1.0
Work place (n = 341)				
On street	29 (19.5)	120 (80.5)	0.6 (0.4, 1.1)	1.7 (0.5, 5.8)
Hotel/Restaurants	14 (24.6)	43 (75.4)	0.7 (0.4, 1.5)	1.0 (0.3, 3.8)
Open house	38 (28.1)	97 (71.9)	1.0	1.0
Types of additional work (n=254)				
Waitress	8 (20.5)	31 (79.5)	1.4 (0.6, 3.4)	1.6 (0.4, 6.7)
Micro and small activities	25 (41.7)	35 (58.3)	0.4 (0.1, 0.9)	0.4 (0.1, 1.9)
Daily laborer	24 (15.5)	131 (84.5)	1.0	1.0
Average monthly income in ETB (n = 341)				
<3000	16 (12.5)	112 (87.5)	1.0	1.0
3,000-5,900	29 (28.4)	73 (71.6)	1.2 (0.7, 2.2)	1.2 (0.4, 3.4)
≥6,000	36 (32.4)	75 (67.6)	3.4 (1.7, 6.5)	**4.2 (1.4, 13.1)***
Relationship status (n = 341)				
Had regular partner	16 (44.4)	20 (55.6)	3.0 (1.5, 6.0)	2.7 (0.9, 8.3)
Had no regular partner	65 (21.3)	240 (78.7)	1.0	1.0
Sex work duration in months (n = 341)				
≤ 24 Months	40 (44.0)	51 (56.0)	4.0 (2.4, 6.8)	**7.8 (2.9, 21.3)*****
>24 Months	41 (16.4)	209 (83.6)	1.0	1.0
Use of male condom as family planning methods (n = 341)				

Yes	35 (63.6)	20 (36.4)	9.1 (4.9, 17.2)	**8.3 (2.8, 24.7) *** **
No	46 (16.1)	240 (83.9)	1.0	1.0
Drug use				
Yes	52 (32.9)	106 (67.1)	2.6 (1.56, 4.4)	1.9 (0.7, 5.4)
No	29 (15.8)	154 (84.2)	1.0	1.0
Ever heard about emergency contraceptive (n = 341)				
Yes	32 (19.2)	135 (80.8)	0.6 (0.4, 1.0)	**0.3 (0.1, 0.7)****
No	49 (28.2)	125 (71.8)	1.0	1.0

*P <0.05; **P < 0.01; ***P < 0.001; AOR-Adjusted Odds Ratio; COR-Crude Odds Ratio; CI-Confidence Interval, maximum variance inflation factor (VIF) was 1.12, Hosmer and Lemeshow test=0.383

5.8. Services expected from and being given by confidentiality clinics

5.8.1. Services expected from confidentiality clinics

An in-depth interview was conducted on seven participants. Once confidentiality clinics were considered as confidential service provision center for FSWs it should provide all important services related with SRH. These services includes:- early identification of FSWs and provision of SRH education, counseling and testing on HIV and other STIs including hepatitis B virus accompanied with its respective care and support, cervical cancer screening, HCG testing and counseling and provision of dual contraceptive to prevent both STIs and unintended pregnancy. Lastly management of outcomes unintended pregnancy which most of the time includes safe abortion service was an important service to prevent maternal and child mortality due to unsafe abortion. Despite that most of the services in the clinics were only HIV and STI related.

*A 38 year old FSW said that: **"**I came for appointment for HIV testing and during my first visit I come with my friend. I was given HIV test and condom. I wanted Implanon to be inserted for me and they sent me to family planning clinic and they inserted for me after I paid and tested for pregnancy testing. Also my friend was sick and in addition to HIV testing they ordered her pregnancy testing and told that she was pregnant. She wanted to abort it but the health profession who work in the abortion room refused her to abort for which she paid a lot of money at private clinic where she made the abortion.**"***

5.8.2. Services being given by confidentiality clinics

Commonly services given to FSWs from confidentiality clinics includes:- outreach peer-education, HIV testing and counseling, ART or Pre-exposure prophylaxis provision depending on HIV test result , other STI suspected testing, condom and short acting family planning provision on FSWs request after key population (KP) identification by peer educators and subsequent client driven for risky population through social networking strategy (SNS) for which the networked client were given a 150 Ethiopian birr.

*A 27 year old FSW raised that: **"**the peer navigators advised me to have safe sex to prevent STI and unintended pregnancy at my work place and told to come and know my HIV status at confidentiality clinic. The next day when I went to the clinic they take blood for HIV testing and told me that I was free of HIV and provided me condom with appointed to come back after three months.**"***

*A 25 year old FSW said that: **"**my friend told me that there is a clinic which provides counseling on safe sex to prevent from STI including HIV testing and provision of drugs before being infected with HIV and I came with her. Here they provide me counseling on safe sex and provide me HIV testing; condom and tablets with 150 birr and told to bring other FSWs to the center.**"***

6. DISCUSSION

Due to their frequent sexual encounters with various partners, female sex workers (FSWs) were among those most at risk for poor sexual and reproductive health (SRH) outcomes. Women who engaged in commercial sex in sub-Saharan Africa were more likely to experience physical and sexual assault, unwanted pregnancy, and STIs including HIV/AIDS (2, 26).

This study demonstrated unwanted pregnancy and its contributing factors, including socio-demographic and socio-economic variables, traits linked to reproductive health, traits related to behavior, awareness and use of contraceptive devices, and traits related to health services. Unintended pregnancies were common among FSWs at 23.8% (95% CI: [19.3%, 28.6%]), and 80.2% of these resulted in abortions. The results were in line with research done in Kenya and the Ethiopian city of Mekelle, where the rate of unplanned pregnancies was 24.3% and 28.6%, respectively (2,15).

In contrast to our findings, studies conducted among FSWs in Zambia, Cameroon and Uganda showed much higher prevalence of unintended pregnancy with 61.6%, 57.6% and 43.8%, respectively (2,11,13). This could be due to efforts of confidential STI and FGA clinics in Ethiopia through key population (KP) peer outreach group education and client tracing social networking strategies (SNS) compared to other SSA countries.

FSWs whose ages ranges were ≤24 years had 4.5 times more likely to have unintended pregnancy compared to those whose ages ranges were ≥30 years. The finding was consistent with study conducted in Kenya in which FSWs whose ages ranges were ≤24 years had 3.0 times more likely to have unintended pregnancy compared to those whose ages ranges were ≥30 years(13,15).

Women's education is an important factor in explaining the fertility and fertility behavior of women. Many studies concluded a significant relationship between educational level and the likelihood of unplanned pregnancies. In this study FSWs who ever had no formal education had 6.7 times more likely to have unintended pregnancy compared to those who completed high school (9-12) grades.

In contrast to our finding studies conducted in Zambia and Uganda showed that FSWs who could read and write were 1.04 times more likely to have unintended pregnancy compared to their counterpart, and those who had primary education had 1.66 times more likely to have unintended pregnancy compared to those who had less than primary education respectively(11,13). This could be explained by the fact that educated people will tend to have awareness about emergency contraceptive while they have no knowledge of appropriate time to take it after unprotected sex.

Despite that income is negatively associated with unintended pregnancy in the general population (29) our study found that FSWs whose average monthly income range were >6,000 ETB had 4.2 times more likely to have unintended pregnancy than those whose average monthly income range were <3,000 ETB. The finding was consistent with studies conducted in Zambia and Kenya in which FSWs with monthly income of 1001-1500 kwacha had 3.01 times more likely to have unintended pregnancy compared to those who had no income and FSWs who had 1001-2000 KShs had 2.4 times more likely to have unintended pregnancy compared to those who had ≤500 KShs weekly income respectively (11,16).

Even though most couples desire to limit their family size only few women use hormonal contraceptive. The majority used condom inconsistently which lead to unintended pregnancy and the problem is high in FSWs due to lack of ability to negotiate condom use and inconvenient clinic operating hours or skipped contraceptive pills when intoxicated after taking alcohol (23,30).

FSWs who use male condom as family planning methods had 8.3 times more likely to have unintended pregnancy than those who did not. The finding was consistence with study done in Kenya in which FSWs who used male condom as family planning method had 2.7 times more likely to have unintended pregnancy compared to those who didn't(16).

Emergency contraceptive pills (ECPs) are a widely used contraceptive measure where the incidence of unwanted pregnancies is on the rise (31). In our finding we found that FSWs who ever heard about emergency contraceptive had 70% less likely to have unintended pregnancy than those who did not. The finding was consistence with scoping review conducted in SSA which revealed that ECs often accessed through private sector pharmacies, had emerged to play an important role in preventing unwanted pregnancies (32).

FSWs whose duration of sex work were ≤24 months had 7.8 times more likely to have unintended pregnancy than those who were >24 months. The finding was consistence with study done in Mekelle city Ethiopia which states that FSWs whose duration of sex work was in the interval of 60–96 months were 67% less likely to have unintended pregnancy than those with <12 months duration of sex work (2).

Once thought of being centers for FSWs seeking confidential assistance, secrecy clinics were expected to provide all necessary SRH-related services. These included early FSW identification, SRH education, counseling and testing for HIV and other STIs, and the provision of dual contraceptives. Treatment of unwanted pregnancy outcomes was a crucial service to reduce mother and infant mortality as a result of unsafe abortions. Despite that most of the services in the clinics were only HIV and STI related. The finding was similar with studies conducted in South Africa(27) and Kenya(28).

ART or Pre-exposure Prophylaxis provision depending on HIV test result, other STI suspected testing, condom and short acting family planning provision on FSWs request after key population (KP) identification by peer educators and subsequent client driven for risky population through social networking strategy (SNS) for which the networked client will be compensated. The finding was similar with studies conducted in South Africa(27) and Kenya(28).

Strength and Limitations of the study

As strength; the study was a mixed method study design and it included the health service related factors of unintended pregnancy among FSWs. As limitation; non-probability sampling method was used due to the absence of kebele level mapping of female sex workers (key population) in Jimma town. The study also didn't include wealth index analysis and HCG test during data collection.

7. CONCLUSSION AND RECOMMENDATIONS

7.1. Concussion

In conclusion, significant magnitude of unintended pregnancy was found among FSWs. Unintended pregnancy associated consequences could lead to poor reproductive and general health of FSWs. Age, educational status, monthly income, male condom use as family planning method, Knowledge of emergency contraceptive and duration of sex work were positively associated with unintended pregnancy.

7.2. Recommendation

Jimma town health office and Health facilities with respective confidentiality clinics: - should avail and have ongoing and continuous counseling on dual contraceptive methods and safe sex, including correct and consistent use of condom and, for particular clients, enhancing use of emergency contraceptive methods to reduce unintended pregnancy among FSWs and standalone comprehensive abortion care service (CAC) in confidentiality clinics.

Federal ministry of health, Oromia regional health bureau and supportive NGOs: - should make kebele level mapping for such key populations and have tailored strategies for income generation and mechanisms to halt FSWs sex work life as early as possible to reduce unintended pregnancy and its consequences in particular and the risk of STIs and its care to the general community at large.

Future researchers: - should conduct community based analytical study to clearly articulate determinants of unintended pregnancy among FSWs.

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ANNEXES

Annex I. Information sheet

This is an informed consent for study being conducted on magnitude and determinants of unintended pregnancy among female sex worker in Jimma town, south west, Ethiopia.

My name is _____. I am a data collector for the study being conducted on magnitude and determinants of unintended pregnancy among female sex worker in Jimma town. The principal investigator is Dereje Kasaye, MPH candidate from Jimma University, institute of Health, faculty of public health department of Epidemiology. The aim of this study is to determine magnitude and determinants of unintended pregnancy among female sex workers. Therefore, I will ask you some questions related to the study. The study will be conducted through face-to-face interviews and you are being asked for a little of your time, about 30 minutes to help us in this study. Your name or anything describing you will not be mentioned to anyone. There is no possible risk associated with participating in this study except the time spent for responding to the questionnaire. All information given by you will be kept strictly confidential. Your participation is voluntary and you are not obligated to answer any question you do not wish to answer. If you feel discomfort with the question, it is your right to drop it any time you want. If you have question regarding this study or would like to be informed of the result after its completion, please feel free to contact the principal investigator.

Address of the principal investigator:

Email: derejekasaye1@gmail.com

Are you willing to participate in this study?

1. Yes _____continue to the next page
2. No _____skip to the next participant

Annex II: Consent form

In signing this document, I am giving my consent to participate in the study titled ‘magnitude and determinants of unintended pregnancy among female sex workers in Jimma town, southwest Ethiopia”

I have been informed that the purpose of this study is to determine the magnitude and determinants of unintended pregnancy among female sex workers in Jimma town. I have understood that participation in this study is entirely voluntarily. I have been told that my answer to the question will not be given to anyone else and no reports of this study ever identify me in any way. I have also been informed that my participation or non-participation or my refusal to answer question will have no effect on me. I understood that participation in this study does not involve risks.

I clearly understood that _____ is the contact person if I have questions about the study or about my right as a study participant.

Respondent signature_____

If no skip to the next participant

Date of interview _____Time started _____Time finished_____

Interviewer name _____signature _____date_____

Supervisor name _____signature _____

Annex III: English version questionnaires

Participant code number_____ (use three digits; start with 001, 002, 003….)

Jimma University, Institute of health, faculty of public health, department of Epidemiology Questionnaires to determine magnitude and determinants of unintended pregnancy among female sex workers in Jimma town, southwest Ethiopia, 2022.

Part 1: Socio-demographic and socio-economic characteristics

Q	Question	Answers and codes	Go to
101	Where is your residence/name of your kebele	_____	
102	How old are you?	_____ In Years	
103	To which ethnic group do you belong?	1. Oromo 2. Amhara 3. Dawro 4. Gurage 5. Silte 6. Tigre 7. Others (specify)_____	
104	What is your religion?	1. Orthodox 2. Muslim 3. Protestant 4. Wakefata 5. Others(specify)_____	
105	What is your relationship status?	1. Had regular partner 2. Had no regular partner	
106	What is your educational status	1. Illiterate 2. Literate	
107	If Literate for Q# 106 what grades	1. Elementary (1–8)	

	does you fulfilled?	2. High school (9–12) 3. Higher education	
108	Why you choose to become sex workers?	1. To increase my income 2. For sexual pleasure 3. Peer-pressure 4. Others specify_____	
109	What is your place of work?	1. Bar and restaurants 2. Hotel 3. Night club 4. Open door (in-house) 5. Street, coffee house and others*	
110	Have you additional work?	1. Yes 2. No	
111	If yes to Q # 110 what is the type of your additional work?	1. Micro and small activity 2. Daily labor 3. Waiter 4. Coffee house 5. Others specify_____	
112	What is your average monthly income in ETB?	_____	
113	Where is your birth place?	1. Urban 2. Rular	
114	Have you arrived from out of Jimma town?	1. Yes 2. No	
115	If yes to Q # 114 What is the reason for leaving your birth place?	1. Searching for better life 2. Fear of early marriage, war or instability 3. Family collapse 4. Others specify _____	
116	Do you want to stop sex work?	1. Yes 2. No	
117	If no to Q # 116 Why you don't want	1. No other better source of income	

	to stop sex work?	2. Familiar with the job 3. No reason 4. Other specify_____	

Part 2: Knowledge and practice on SRH services

Q	Question	Answers and codes	Go to
201	Have you ever used contraceptive?	1. Yes 2. No	
202	If yes for Q # 201, what type of contraceptive method do you use?	1. Modern family planning methods 2. Natural family planning methods	
203	If Modern family planning methods for Q # 202 which type do you prefer to use?	1. Condom 2. Injectable 3. Implant 4. IUCD 5. Pills	
204	Do you know female condom?	1. Yes 2. No	
205	If yes for Q # 204 have you ever used female condom?	1. Yes 2. No	
206	If no for Q # 205 what is the reason for not using female condom?	1. Not accessible 2. Not effective 3. Other specify_____	
207	Have you ever used male condom as a family planning?	1. Yes 2. No	
208	Have you ever used dual contraceptive methods (barriers and non-barrier)?	1. Yes 2. No	
209	If yes for Q # 208, are you using dual contraceptive currently?	1. Yes 2. No	
210	What is the reason for not using dual contraceptive methods?	1. Do not know the benefits 2. Not easily accessible	

		3. No reason	
211	Have you ever heard/know emergency contraceptive?	1. Yes 2. No	
212	If yes to Q # 211 have you ever used Emergency contraceptive?	1. Yes 2. No	
213	If yes to Q # 212 when do take emergency contraceptive after unprotected sex to prevent pregnancy?	_____	
214	Have you ever used to visit SRH services provision centers like Confidentiality clinic before?	1. Yes 2. No	
215	If no to Q # 214 what is the reason?	1. Do not know the presence of the center 2. Do not want to get services from the center? 3. Far from my usual place of work 4. Others specify_____	

Part 3: Reproductive health characteristics

Q	Question	Answers and codes	Go to
301	Have you ever married?	1. Yes 2. No	
302	If yes to Q # 301 what is your age at first marriage in years?	_____	
303	If yes for Q # 301, is it willing age for marriage?	1. Yes 2. No	
304	What is your age at first sex in years?	_____	
305	Have you ever got pregnant?	1. Yes 2. No	

306	If yes for Q # 305, how many times you got pregnant?	_____	
307	If yes for Q # 305, have you ever given birth before 2 years?	1. Yes 2. No	
308	How many children do you have?	_____	
309	Have you got raped within the past 2 years?	1. Yes 2. No	
310	Have you got pregnant within the past 2 years?	1. Yes 2. No	
311	If yes to Q # 310; have you got unintended pregnancy within the past 2 years?	1. Yes 2. No	
312	If yes to Q # 311 what type of unintended pregnancy you have experienced?	1. Unwanted 2. Unplanned	
313	If yes to Q # 311 what is the reason for unintended pregnancy?	1. Condom breakage, slippage, inconsistent/incorrect condom use, forced sexual abuse 2. Didn't use condom with steady partner	
314	If yes to Q # 311 what was an outcome of unintended pregnancy?	1. Birth 2. Abortion 3. Currently pregnant 4. Stillbirth	
315	Have you ever had abortion?	1. Yes 2. No	
316	If yes to Q # 315; how many times you have aborted before 2 years?	_____	
317	If yes to Q # 315; what type of abortion you undergo for the recent one?	1. Safe 2. Unsafe	
318	If safe abortion to Q # 317 where do you	1. Public health facility	

	get the service?	2. Private health facility 3. Others specify _____	

Part 4: Behavioral related characteristics

Q	Question	Answers and codes	Go to
401	Have you ever used condom?	1. Yes 2. No	
402	If yes for Q # 401, who is responsible to bring condom to use during sexual intercourse?	1. I my self 2. Sexual partner 3. Both	
403	If it is a sexual partner who is responsible to avail condom and didn't bring the condom do you have a sexual intercourse without condom?	1. Yes 2. No	
404	Do you know how to use condom correctly?	1. Yes 2. No	
405	If yes to Q # 404 did you use condom in the past 2 years consistently?	1. Yes 2. No	
406	If no to Q # 405 what is the reason for not using condom consistently?	1. Clients are not happy 2. Clients pressure to pay more money, 3. not knowing benefits of condom use 4. Other specifies? _____	
407	Do you have non-paying partner?	1. Yes 2. No	
408	If yes to Q # 407, do you use condom with your non-paying partner?	1. Yes 2. No	
409	If yes to Q # 408 how often do you use condom with your non-paying partner?	1. Always 3. Sometimes	

410	If yes to Q # 401; have you ever faced condom breakage?	1. Yes 2. No	
411	If yes to Q # 410; what was the measurement taken after condom breakage?	1. Tested for HIV at confidential STI clinic 2. Seek medical advice at health facility 3. Vaginal douche with soap 4. Get secret and kept quiet, others*	
412	Have you steady partner?	1. Yes 2. No	
413	If yes to Q # 412; why do you want to have steady partner?	1. For support me by money 2. To prevent me from physical violence 3. Other specify _____	
414	If yes to Q # 412; do you use condom with your steady partner?	1. Yes 2. No	
415	If yes to Q # 414; how often do you use condom with your steady partner?	2. Always 3. Sometimes	
416	What is an average sex practice episodes per day?	_____	
417	How long you have been in sex work in months?	_____	
418	Do you drink alcohol?	1. Yes 2. No	
419	Do you use drug/substance?	1. Yes 2. No	
420	Have you ever been sexually abused?	1. Yes 2. No	

*Others wash by urine, wash by lemon

Part 5: Health service related factors

Q	Question	Answers and codes	Go to
501	Have you ever got SRH services before?	1. Yes 2. No	
502	If yes for Q # 501 where do you get SRH services for the recent one?	1. Public health facility 2. Private facility 3. Others specify_____	
503	If yes for Q # 501 which types of health facility do you want to get SRH services?	1. Hospital 2. Health centers 3. Clinics 4. Others specify ____	
504	What is the convenient time you want to get SRH services?	1. Day time 2. Night time 3. Any time	
505	If during night time for Q # 504 what is the reason?	1. Convenient time for work as well 2. Fear of social perception 3. Negative self-perception 4. Other specify _____	
506	Can you get contraceptive method in/near your working place?	1. Yes 2. No	
507	If yes to Q # 506 what are the types of contraceptive you can get?	1. Condom 2. Injection 3. Implanon 4. IUCD	
508	How do you rate cost of contraceptive services?	1. Free 2. Low 3. Fair 4. High	
509	Have you ever got HIV testing at least once during lifetime?	1. Yes 2. No	
510	Have you ever got hepatitis B testing at least once during	1. Yes 2. No	

	lifetime?		
511	Is there SRH services in Confidentiality clinic?	1. Yes 2. No	
512	If yes to Q # 513 what it includes?	1. Counselling and testing only about HIV 2. Counselling and testing on STIs including HIV 3. Counselling and provision on family planning 4. Counselling, testing and service provision on pregnancy and related problems 5. Others specify _____	
513	Is there an appointment service from Confidentiality clinic?	1. Yes 2. No	
514	Are you satisfied with the services provided by Confidentiality clinic?	1. Yes 2. No	
515	If no for Q # 516, what makes you not satisfied with the Confidentiality clinic?	1. Inadequate service provision 2. Duration of service provision 3. Place of the confidentiality clinic 4. Other specify _____	

I have finished thank you!!!

Annex IV: Amharic version questionnaires

የተሳታፊ ኮድ ቁጥር _____ (ሶስት አሃዞችን ይጠቀሙ፤ በ 001, 002, 003 ይጀምሩ….)

ጅማ ዩኒቨርሲቲ፣ ጤና ኢንስቲትዩት፣ የህብረተሰብ ጤና ፋኩልቲ፣ የኤፒዲሚዮሎጂ ትምህርት ክፍል በጅማ ከተማ፣ ደቡብ ምዕራብ ኢትዮጵያ፣ 2022

ክፍል 1: ማህበረ-ሕዝብ እና ማህበራዊ-ኢኮኖሚያዊ ባህሪያት

ጥ	ጥያቄ	መልሶች እና ኮዶች	መሄድ
101	የቀበሌዎ መኖሪያ/ስም የት ነው?	_____	
102	እድሜሽ ስንት ነው?	_____ በአመት	
103	ብሄርሽ ምንድነው ?	1) ኦሮሞ 2) አማራ 3) ዳውሮ 4) ጉራጌ 5) ስልጤ 6) ትግሬ 7) ሌሎች (ይግለጹ) _____	
104	ሀይማኖትሽ ምንድነው?	1) ኦርቶዶክስ 2) ሙስሊም 3) ፕሮቴስታንት 4) ዋቄፋታ 5) ሌሎች (ይግለጹ) _____	
105	የግንኙነት ሁኔታሽ ምንድነው?	1) መደበኛ አጋር አለ 2) መደበኛ አጋር የለም	
106	የትምህርት ደረጃዎ ምን ያህል ነው?	1) ያልተማረች 2) የተማረች	
107	የተማረች ከሆነ ምን ደረጃዎችን አሟልተዋል?	1) የመጀመሪያ ደረጃ (1-8) 2) ሁለተኛ ደረጃ ትምህርት ቤት (9-12) 3) ከፍተኛ ትምህርት	

108	ለምንድነው የወሲብ ሰራተኛ ለመሆን የመረጥሽ?	1) ገቢዬን ለማሳደግ 2) ለወሲብ ደስታ 3) የጓደኛ ግፊት 4) ሌሎች ይገልጻሉ_____	
109	የስራ ቦታሽ የት ነው?	1) ባር እና ምግብ ቤቶች 2) ሆቴል 3) የምሽት ክለብ 4) ክፍት በር (በቤት ውስጥ) 5) ጎዳና፣ ቡና ቤት እና ሌሎች*	
110	ተጨማሪ ሥራ አለሽ?	1) አዎ 2) አይ	
111	ለጥያቄ # 110 አዎ ከሆነ የተጨማሪ ስራሽ አይነት ምንድ ነው?	1) ጥቃቅን እና ጥቃቅን እንቅስቃሴዎች 2) ዕለታዊ የጉልበት ሥራ 3) አስተናጋጅ 4) ቡና ቤት 5) ሌሎች _____ ይገልጻሉ	
112	በኢቲዮጵያ ብር በአማካይ ወርሃዊ ገቢሽ ስንት ነው?	_____	
113	የትውልድ ቦታሽ የት ነው?	1) ከተማ 2) ገጠር	
114	ከጅማ ከተማ ደርሰሃል?	1) አዎ 2) አይ	
115	ለጥያቄ # 114 አዎ ከሆነ የትውልድ ቦታዎን የለቀቁበት ምክንያት ምንድን ነው?	1) የተሻለ ሕይወት ፍለጋ 2) ያለዕድሜ ጋብቻ ፍርሃት, ጦርነት ወይም አለመረጋጋት 3) የቤተሰብ ውድቀት 4) ሌሎች _____	
116	የወሲብ ስራ ማቆም ትፈልጋለሽ?	1) አዎ 2) አይ	
117	አይደለም ከሆነ ለጥያቄ # 116 ለምን የወሲብ ስራ ማቆም አትፈልጉም?	1) ሌላ የተሻለ የገቢ ምንጭ የለም። 2) ከሥራው ጋር መተዋወቅ 3) ምንም ምክንያት 4) ሌላ ይግለጹ_____	

ክፍል 2፡ ስለ SRH አገልግሎቶች እውቀት እና ልምምድ

ጥ	ጥያቄ	መልሶች እና ኮዶች	መሄድ
201	የወሊድ መከላከያ ተጠቅመሽ ታውቃለሽ?	1) አዎ 2) አይ	
202	ለጥያቄ # 201 አዎ ከሆነ ምን አይነት የእርግዝና መከላከያ ዘዴ ይጠቀማሉ?	1) ዘመናዊ የቤተሰብ ምጣኔ ዘዴዎች 2) ተፈጥሯዊ የቤተሰብ ምጣኔ ዘዴዎች	
203	ለጥያቄ # 202 አዎ ከሆነ የትኛውን ዓይነት መጠቀም ይፈልጋሉ?	1) ኮንዶም 2) የሚወጋ 3) የምተከል 4) መሃፅን ዉስጥ የምደረግ 5) እንክብሎች	
204	የሴት ኮንዶም ታውቃለሽ?	1) አዎ 2) አይ	
205	ለጥያቄ # 204 አዎ ከሆነ የሴት ኮንዶም ተጠቅመሽ ታውቃለሽ?	1) አዎ 2) አይ	
206	ለጥያቄ # 205 አይደለም ከሆነ የሴት ኮንዶም ያለመጠቀም ምክንያቱ ምንድን ነው?	1) ተደራሽ አይደለም። 2) ውጤታማ አይደለም 3) ሌላ ይግለጹ_____	
207	የወንድ ኮንዶም እንደ የቤተሰብ ምጣኔ ተጠቅመሽ ታውቃለሽ?	1) አዎ 2) አይ	
208	ድርብ የወሊድ መከላከያ ዘዴዎችን (ንክኪን የምከላከክ እና ንክኪን የማዬከላከሉ) ተጠቅመህ ታውቃለሽ?	1) አዎ 2) አይ	
209	ለጥያቄ # 208 አዎ ከሆነ፣ በአሁኑ ጊዜ ድርብ የወሊድ መከላከያ እየተጠቀሙ ነው?	1) አዎ 2) አይ	
210	ድርብ የወሊድ መከላከያ ዘዴዎችን ያለመጠቀም ምክንያት ምንድን ነው?	1) ጥቅሞቹን አለማው 2) በቀላሉ የማይደረስ 3) ምንም ምክንያት የለም	
211	የድንገተኛ የእርግዝና መከላከያ ሰምተው ያውቃሉ?	1) አዎ 2) አይ	
212	ለጥያቄ # 211 አዎ ከሆነ የድንገተኛ የእርግዝና መከላከያ ተጠቅመሽ ታውቃለሽ?	1) አዎ 2) አይ	

213	ለጥያቄ # 212 አዎ ከሆነ እርግዝናን ለመከላከል ጥንቃቄ የጎደለው የግብረ ሥጋ ግንኙነት ከተፈጸመ በኋላ ድንገተኛ የወሊድ መከላከያ መቼ ነው የሚወሰደው?	_____	
214	እንደ ሚስጥራዊነት ክሊኒክ ያሉ የስነ ወሲብ እና ስነ ትዋልዶ አገልግሎቶች አቅርቦት ማዕከላትን ከዚህ በፊት ለመጎብኘት ተጠቅመህ ታውቃለህ?	1) አዎ 2) አይ	
215	ለጥያቄ # 214 አይ ካልሆነ ምክንያቱ ምንድን ነው?	1) የማዕከሉን መኖር አታውቅም። 2) ከማዕከሉ አገልግሎት ማግኘት አይፈልጉም? 3) ከተለመደው የስራ ቦታዬ ርቄያለሁ 4) ሌሎች _____ ይገልጻሉ	

ክፍል 3: የመራቢያ ጤና ባህሪያት

ጥ	ጥያቄ	መልሶች እና ኮዶች	መዟድ
301	አግብተሽ ታውቃለሽ?	1) አዎ 2) አይ	
302	ለጥያቄ # 301 አዎ ከሆነ ከዓመታት በኋላ በመጀመሪያ ጋብቻ ዕድሜዎ ስንት ነው?	_____	
303	ለጥያቄ # 301 አዎ ከሆነ፣ ለትዳር እድሜው ፈቃደኛ ነው?	1) አዎ 2) አይ	
304	በዓመታት ውስጥ በመጀመሪያ የግብረ ሥጋ ግንኙነት ዕድሜዎ ስንት ነው?	_____	
305	አርግዘሽ ታውቃለሽ?	1) አዎ 2) አይ	
306	ለጥያቄ # 305 አዎ ከሆነ ስንት ጊዜ አረገዘሽ?	_____	
307	ለጥያቄ # 305 አዎ ከሆነ ከ 2 አመት በፊት ተወልደሽ ታውቃለሽ?	1) አዎ 2) አይ	
308	ስንት ልጆች አሉሽ?	_____	
309	ባለፉት 2 ዓመታት ውስጥ ተደፍራችኋል?	1) አዎ 2) አይ	
310	ባለፉት 2 ዓመታት ውስጥ አርግዘሽ ታዉቃለሽ?	1) አዎ 2) አይ	
311	አዎ ከሆነ ለጥያቄ # 310; ባለፉት 2 ዓመታት ውስጥ	1) አዎ	

	ያልታሰበ እርግዝና ኣጋጥሞሻል?	2) አይ	
312	ለጥያቄ # 311 አዎ ከሆነ ምን አይነት ያልተፈለገ እርግዝና ኣጋጥሞዎታል?	1) የማይፈለግ 2) ያልታቀደ	
313	ለጥያቄ # 311 አዎ ከሆነ ላልተፈለገ እርግዝና ምክንያቱ ምንድን ነው?	1) የኮንዶም መስበር፣ መንሸራተት፣ ወጥ ያልሆነ/የተሳሳተ የኮንዶም አጠቃቀም፣ የግዳጅ ወሲባዊ ጥቃት 2) ከቋሚ ኣጋር ጋር ኮንዶም አልተጠቀሙም።	
314	ለጥያቄ # 311 አዎ ከሆነ ያልተፈለገ እርግዝና ውጤቱ ምን ነበር?	1) መወለድ 2) ፅንስ ማስወረድ 3) በአሁኑ ጊዜ እርጉዝ 4) ገና መወለድ	
315	ውርጃ ፈጽመሽ ታውቃለሽ?	1) አዎ 2) አይ	
316	ለጥያቄ # 315 አዎ ከሆነ; ከ 2 ዓመት በፊት ስንት ጊዜ አስወረዱ?	_____	
317	ለጥያቄ # 315 አዎ ከሆነ; ለቅርብ ጊዜ ምን አይነት ፅንስ ማስወረድ ነው?	1) አስተማማኝ 2) ደህንነቱ ያልተጠበቀ	
318	ደህንነቱ የተጠበቀ ፅንስ ማስወረድ ወደ Q # 317 ከሆነ አገልግሎቱን ከየት ያገኛሉ?	1) የህዝብ ጤና ተቋም 2) የግል ጤና ተቋም 3) ሌሎች _____ ይገልጻሉ	

ክፍል 4፡ ከባህሪ ጋር የተያያዙ ባህሪያት

ጥ	**ጥያቄ**	***መልሶች እና ኮዶች***	***መሄድ***
401	ኮንዶም ተጠቅመሽ ታውቃለሽ?	1) አዎ 2) አይ	
402	ለጥያቄ # 401 አዎ ከሆነ፣ በግብረ ሥጋ ግንኙነት ጊዜ ለመጠቀም ኮንዶም ማምጣት ያለበት ማነው?	1) እኔ ራሴ 2) የወሲብ ጓደኛ	
403	ኮንዶም የመጠቀም ሃላፊነት ያለበት እና ኮንዶም ያላመጣው የወሲብ ጓደኛ ከሆነ ያለኮንዶም የግብረ ሥጋ ግንኙነት ትፈጽማለሽ?	1) አዎ 2) አይ	
404	ኮንዶም በትክክል እንዴት እንደሚጠቀሙ ያውቃሉ?	1) አዎ 2) አይ	
405	ለጥያቄ # 404 አዎ ከሆነ ላለፉት 2 ዓመታት ያለማቋረጥ ኮንዶም	1) አዎ	

	ተጠቅመዋል?	2) አይ	
406	ለጥያቄ # 405 አይደለም ከሆነ ኮንዶም በቋሚነት ያለመጠቀም ምክንያቱ ምንድን ነው?	1) ደንበኞች ደስተኛ አይደሉም 2) ደንበኞች ተጨማሪ ገንዘብ እንዲከፍሉ ግፊት ያደርጋሉ, 3) የኮንዶም አጠቃቀምን አለማወቅ 4) ሌላ ይገልፃል? _____	
407	የማይከፈል አጋር አለሽ?	1) አዎ 2) አይ	
408	ለጥያቄ # 407 አዎ ከሆነ፣ ከማይከፈልበት አጋርዎ ጋር ኮንዶም ይጠቀማሉ ?	1) አዎ 2) አይ	
409	ለጥያቄ # 408 አዎ ከሆነ ምን ያህል ጊዜ ከማይከፍለው አጋርዎ ጋር ኮንዶም ይጠቀማሉ ?	1) ሁሌም 2) አንዳንዴ	
410	አዎ ከሆነ ለጥያቄ # 401; የኮንዶም መሰበር አጋጥሞሽ ያውቃል?	1) አዎ 2) አይ	
411	አዎ ከሆነ ለጥያቄ # 410; ኮንዶም ከተሰበረ በኋላ የተወሰደው መለኪያ ምንድን ነው?	1) በሚስጥራዊ የአባላዘር በሽታ ክሊኒክ ለኤችአይቪ ተፈትኗል 2) በጤና ተቋም የህክምና ምክር ይጠይቁ 3) የሴት ብልት ዶሽ በሳሙና 4) ይደብቁ እና ዝም ይበሉ ሌሎች*	
412	ቋሚ አጋር አለሽ?	1) አዎ 2) አይ	
413	አዎ ከሆነ ለጥያቄ # 412; ለምን ቋሚ አጋር እንዲኖርዎት ይፈልጋሉ?	1) በገንዘብ ይደግፉኝ ዘንድ 2) አካላዊ ጥቃት እንዳይደርስብኝ 3) ሌላ _____ ይግለጹ	
414	አዎ ከሆነ ለጥያቄ # 412; ከቋሚ አጋርዎ ጋር ኮንዶም ይጠቀማሉ?	1) አዎ 2) አይ	
415	አዎ ከሆነ ለጥያቄ # 414; ከቋሚ አጋርዎ ጋር ምን ያህል ጊዜ ኮንዶም ይጠቀማሉ?	1) ሁሌም 2) አንዳንዴ	
416	አማካይ የወሲብ ልምምድ በቀን ምን ያህል ነው?	_____	
417	በወራት ውስጥ በወሲብ ስራ ውስጥ ለምን ያህል ጊዜ ቆይተዋል?	_____	
418	አልኮል ትጠጣለሽ?	1) አዎ 2) አይ	

419	አደንዛዥ ዕፅ/ንጥረ ነገር ትጠቀማለሽ?	3. አዎ 4. አይ	
420	ወሲባዊ በደል ደርሶብሃል?	3. አዎ 4. አይ	

*ሌሎች በሽንት ይታጠባሉ፣ በሎሚ ይታጠቡ

ክፍል 5፡ ከጤና አገልግሎት ጋር የተያያዙ ምክንያቶች

ጥ	ጥያቄ	መልሶች እና ኮዶች	መሄድ
501	ከዚህ በፊት የSRH አገልግሎቶችን አግኝተው ያውቃሉ?	1) አዎ 2) አይ	
502	ለጥያቄ # 501 አዎ ከሆነ ለቅርብ ጊዜ የስነ ወሲብ እና ትዋልዶ አገልግሎቶችን ከየት ያገኛሉ?	1) የህዝብ ጤና ተቋም 2) የግል ተቋም 3) ሌሎች ይገልፃሉ_____	
503	ለጥያቄ # 501 የትኛውን የጤና ተቋም የስነ ወሲብ እና ትዋልዶ አገልግሎቶችን ማግኘት ይፈልጋሉ?	1) ሆስፒታል 2) ጤና ጣቢያዎች 3) ክሊኒኮች 4) ሌሎች _____ ይገልጻሉ	
504	የስነ ወሲብ እና ትዋልዶ አገልግሎቶችን ለማግኘት የሚፈልጉት ምቹ ጊዜ ስንት ነው?	1) የቀን ጊዜ 2) የምሽት ጊዜ 3) በማንኛውም ጊዜ	
505	በምሽት ሰዓት ለጥያቄ # 504 ከሆነ ምክንያቱ ምንድን ነው?	1) ለስራም ምቹ ጊዜ 2) የማህበራዊ ግንዛቤን መፍራት 3) አሉታዊ ራስን ግንዛቤ 4) ሌላ _____ ይግለጹ	
506	በስራ ቦታዎ አጠገብ የእርግዝና መከላከያ ዘዴን ማግኘት ይችላሉ?	1) አዎ 2) አይ	
507	ለጥያቄ # 506 አዎ ከሆነ ምን ዓይነት የወሊድ መከላከያ ዓይነቶች ሊያገኙ ይችላሉ?	1) ኮንዶም 2) መርፌ 3) ኢምፕላን 4) IUCD 5) እንክብሎች	

508	የወሊድ መከላከያ አገልግሎቶችን ዋጋ እንዴት ይገመግማሉ?	1) ፍርይ 2) ዝቅተኛ 3) ፍትሃዊ 4) ከፍተኛ	
509	ለጥያቄ # 509 አዎ ከሆነ ውጤቱ ምን ነበር?	1. ፖዞቲቭ 2. ነገቲቭ	
510	በህይወትዎ ውስጥ ቢያንስ አንድ ጊዜ የሄፐታይተስ ቢ ምርመራ አጋጥሞዎት ያውቃሉ?	3. አዎ 4. አይ	
511	ክሊኒክ ውስጥ የስነ ወሲብ እና ትዋልዶ አገልግሎቶች አሉ ?	1) አዎ 2) አይ	
512	ለጥያቄ # 513 አዎ ከሆነ ምን ያካትታል?	1) ስለ ኤችአይቪ ብቻ ማማከር እና መሞከር 2) ኤችአይቪን ጨምሮ በአባላዘር በሽታዎች ላይ ማማከር እና መሞከር 3) በቤተሰብ እቅድ ላይ ምክር እና አቅርቦት 4) በእርግዝና እና ተዛማጅ ችግሮች ላይ የምክር, የፈተና እና የአገልግሎት አቅርቦት 5) ሌሎች _____ ይገልጻሉ	
513	ከምስጢራዊነት ክሊኒክ የቀጠሮ አገልግሎት አለ?	1) አዎ 2) አይ	
514	በምስጢራዊነት ክሊኒክ በሚሰጠው አገልግሎት ረክተዋል?	3. አዎ 4. አይ	
515	ለጥያቄ # 516 ካልሆነ፣ በምስጢራዊነት ክሊኒክ ያልረኩዎት ምንድነው?	1) በቂ ያልሆነ የአገልግሎት አቅርቦት 2) የአገልግሎት አቅርቦት ቆይታ 3) የምስጢር ክሊኒክ ቦታ 4) ሌላ _____ ይጥቀሱ	

ጨርሻለሁ አመሰግናለሁ!!!

Annex V: Afan Oromo version questionnaires

Lakkoofsa koodii hirmaattotaa_____ (deessimaalii sadiin fayyadama; kan jalqabu 001, 002, 003….)

Yuunivarsiitii Jimmaa; koolleejjii fayyaa hawaasaa; muummee Ipideemi'ooloojiitti gaaffiilee qorannoo mata-duree "**Ulfaatinaa fi sababoota fedhii malee ulfaa'uu duartoota hojii wal-qunnamtii saalaa irratti obbaa'anii magaala jimmaa keessa jiraatan irratti bara 2022 A.L.F."** gaggeeffamuuf qophaa'e.

Kutaa 1: Gaaffiilee bu'uuraa

G	Gaaffii	Deebii fi koodii	Gara
101	Maqaa gandaa /Gandi ati keessa jiraattu maal jedhama?	_____	
102	Umriin kee meeqa?	_____ In Years	
103	Sabni kee maali?	1. Oromoo 2. Amaara 3. Daawuroo 4. Guraagee 5. Silxee 6. Tigree 7. Ka biraa (adda baasi)_____	
104	Amantiin kee maali?	1. Ortodoksii 2. Musliima 3. Prootestaanti 4. Waqeffataa 5. Ka biraa (adda baasi)_____	
105	Haalli walitti dhufeenya walqunnamtii saalaa maal fakkaata?	1. Maamila dhaabbataan qaba 2. Maamila dhaabbataa hin qabu	
106	Sadarkaan barumsa keetii maal fakkaata?	3. Hin baranne 4. Baradhe	
107	Yoo aratte ta'e Q# 106 hangam baratte?	4. Sadarkaa tokkoffaa (1–8) 5. Sadarkaa lammaffaa (9–12) 6. Sadarkaa barnoota olaanoo	

108	Hojii wal-qunnamtii saalaa hojjechuu maaliif filatte?	1. Galii dabaluuf 2. Gammachuu wal-qunnnamtii saalaa argachuuf 3. Dhiibbaa hiriyaatiin 4. Ka biraa (adda baasi)_____	
109	Iddoon hojii keetii eessa?	1. Baarii fi Reestoraantii 2. Hoteela 3. Mana sirbaa fi bashannanna halkanii 4. Manatti ofiitti 5. Karaa/bakkee irratti	
110	Hojii dabalataa qadaa?	1. Eeyyen 2. Lakki	
111	Gaaffii 110 yoo eeyyen ta'e hojiin dabalataa kee maali?	1. Hojiilee xixiqqoo 2. Hojii guyyaa guyyaa 3. Keessummeessuu 4. Mana bunaa 5. Ka biraa (adda baasi)_____	
112	Galiin galii ji'aa kee giddu galeessaan qarshii Itooophiyaatiinn maaqa ta'a?	_____	
113	Iddoon dhalootaa kee eessa?	1. Magaala 2. Baadiyyaa	
114	Magaala jimmaatiin alaa dhuftee?	1. Eeyyen 2. Lakki	
115	Gaafii 114 yoo eeyyen ta'e sababni iddoo dhalootaa kee dhiiftee dhufteef maali?	1. Jireenya mijataa barbaacha 2. Soda umrii malee heerumuu,waraanaa fi tasgabbii dhabaa 3. Diigamuu maatii 4. Ka biraa (adda baasi)_____	
116	Hojii wal-qunnamtii saalaa kana dhaabuu ni barbaaddaa?	1. Eeyyen 2. Lakki	
117	Gaaffii 116 yoo lakki ta'e sababni isaa maali??	1) Maddi galii biraa fooyya'aan waan hin jirreef 2) Hojiin kun natti tolee jira 3) Sababa hin qabu 4) Ka biraa (adda baasi)_____	

Kutaa 2: Beekumsaa fi fayyadama kenniinsa tajaajila wal-hormaata saalaa

G	Gaaffii	Deebii fi koodii	Gara
201	Karoora maatii fayyadamtee beektaa?	1. Eeyyen 2. Lakki	
202	Gaaffii 201 yoo eeyyen; ta'e gosa kamiidha?	3. Kan ammayyaa 4. Kan uumamaa	
203	Gaaffii 202 yoo kann ammayyaa ta'e isa kam fayyadamuu barbaadda/fayyadamaa jirt?	6. Koondomii 7. Lilmoo 8. Kan irree jal kaa'amu 9. Kan gadameessa keessa kaa'amu 10. Kiniinii	
204	Koondomii dubartii beektaa?	1. Eeyyen 2. Lakki	
205	Gaaffii 204 yoo eeyyen ta'e fayyadamtee beektaa?	1. Eeyyen 2. Lakki	
206	Gaaffii 205 yoo lakki ta'e sababni isaa maali?	4. Hin argamu 5. Fayyadamuuf hin mijatu/bu'a qabeessa miti 6. Kan biraa yoo jiraate adda baasi_____	
207	Koondomii dhiiraa akka karoora maatiitti fayyadamtee beektaa?	1. Eeyyen 2. Lakki	
208	Karoora maatii wal-faanna fayyadamtee beektaaa (kan tuttuqqaa dhorkanii fi hin dhorkine)?	1. Eeyyen 2. Lakki	
209	Gaaffii 208 yoo eeyyen ta'e, amma fayyadamaa jirtaa?	1. Eeyyen 2. Lakki	
210	Gaaffii 209 yoo lakki ta'e sababni isaa maali?	4. Faayidaa isaa hin beeku 5. Akka salphaatti hin argamu 6. Sababa hin qabu	
211	Karoora maatii yeroo tasaa dhageessee beektaa?	1. Eeyyen 2. Lakki	
212	Gaaffii 204 yoo eeyyen ta'e karoora maatii yeroo tasaa fayyadamtee beektaa?	1. Eeyyen 2. Lakki	

213	Gaaffii 205 yoo eeyyen ta'e karoora maatii yeroo tasaa kana yeroo hangamii keessatti fayyadamamuu qaba?	_____	
214	Iddoo keiinsa tajaajila walhormaata saalaa deemtee beektaa?	1. Eeyyen 2. Lakki	
215	Gaaffii 214 yoo lakki ta'e sababni isaa maali?	5. Iddoon akkanaa jiraachuu hin barre 6. Iddoo akkasii kanaa tajaajila fudhachuu hin barbaanne? 7. Iddoo ani hojjedhu/jiraadhu irraa fagoodha 8. Kan biraa yoo jiraate adda baasi_____	

Kutaa 3: Seenaa haala wal-hormaataa

G	Gaaffii	Deebii fi koodii	Gara
301	Heerumtee beektaa?	1. Eeyyen 2. Lakki	
302	Yoo gaaffii 301 eeyyen ta'e yeroo heerumtu umriin kee meeqa?	_____	
303	Yoo gaaffii 301 eeyyen ta'e umriin kee heerumaaf ga'aadhaa?	1. Eeyyen 2. Lakki	
304	Yeroo walqunamtii saalaa eegaltu umrii kee meeqa ta'a?	_____	
305	Ulfa taatee beektaa?	1. Eeyyen 2. Lakki	
306	Gaaffii 303 eeyyen yoo ta'e Yeroo meeqa ulfooftee beekta?		
307	Waggaa lamaan duratti deessee beektaa?	1. Eeyyen 2. Lakki	
308	Gaaffii 306 eeyyen yoo ta'e ijoollee meeqa qada?	_____	
309	Waggaa lamaan darbe keessatti humnaan gudeedamtee beektaa?	1. Eeyyen 2. Lakki	
310	Waggaa lamaan kana keessatti ulfa taatee beektaa?	1. Eeyyen 2. Lakki	
311	Gaaffii 310 yoo eeyyen ta'e fedhii malee	1. Eeyyen	

	ulfooftee beetkaa?	2. Lakki	
312	Gaaffiin 311 yoo eeyyen ta'e gosti isaa maali?	1. Ulfa hin barbaadamne 2. Ulfa hin karoorfamne	
313	Gaaffiin 311 yoo eeyyen ta'e sababni isaa maali?	1. Kondomii cituu, mucucaachuu, itti fufiins kan hin qabne/haal hintaaneen fayyadamuu, walqunnnamtii saalaa fedhii malee 2. Maamila dhaabbataa waliin koondomii fayyadamu dhiisuu	
314	Gaaffiin 311 yoo eeyyen ta'e bu'aan isaa maali?	1. Daa'imatu dhalate 2. Irraa ba'e 3. Yeroo ammaa kanatti ulfa 4. Du'aatu dhalate	
315	Ulfi sirraa ba'ee beekaa?	1. Eeyyen 2. Lakki	
316	Gaaffiin 315 yoo eeyyen ta'e yeroo meeqa sirraa ba'ee beeka?	_____	
317	Gaaffiin 315 yoo eeyyen ta'e ulfa baasuu gosa akkamiiti?	1. Dhaabbata fayyaatti ogeessaan 2. Kan ogeessaan hin deeggaramne	
318	Gaaffii 317 dhaaf yoo dhaabbata fayyaatti ogeessaan ta'e iddoon isaa eessa?	1. Dhaabbata fayyaa mootummaa 2. Dhaabbata fayyaa dhuunfaa 3. Kan biraa yoo jiraate adda baasi? _____	

Kutaa 4: Gaaffiilee amaloota irratti xiyyeeffatan

G	Gaaffiilee	Deebii fi koodii	Gara
401	Kondomii fayyadamtee beektaa?	1. Eeyyen 2. Lakki	
402	Gaaffii 401 yoo eeyyen ta'e ,koondomii dhiyeessuuf eenyutu dirqama qaba?	4. Anuma 5. Hiriyaa wal-qunnamtii saalaati 6. Lamaan keenya	
403	Gaaffii 402 yoo hiryaa wal-qunnamtii saalaa ta'ee koondomii dhiyeessuu baate wal-qunnamtii saalaa koondomii malee ni raawwattaa?	1. Eeyyen 2. Lakki	
404	Koondomii haalan fayyadamuu beektaa?	1. Eeyyen 2. Lakki	

405	Gaaffii 405'f yoo eeyyen ta'e waggoottan darban lamaan koondomii walitti fufiinsaan fayyadamtee beektaa?	1. Eeyyen 2. Lakki	
406	Gaaffii 406 yoo lakki ta'e sababni isaa maali?	1. Maamiltoonni gammadaa miti 2. Maamiltoonni kondomii malee wal-qunnamtii saalaa raawwatanii qarshii dabalanii kennnuu barbaadu, 3. Faayidaa koondomii hin beeku 4. Kan biraa yoo jiraate adda baasi_____	
407	Maamila kafaltii malee wal-qunnamtii saalaa waliin raawwattu qabdaa?	1. Eeyyen 2. Lakki	
408	Gaaffii 408, yoo eeyyen ta'e maamila kafaltii malee wal-qunnamtii saalaa waliin raawwattu waliin yeroo wal-qunnamtii saalaa gaggeessitu koondomii ni fayyadamtaa?	1. Eeyyen 2. Lakki	
409	Gaaffii 409 yoo eeyyen ta' hangam fayyadamta koondomii?	1. Yeroo hunda 2. Yeroo tokko tokko	
410	Gaaffii 401 yoo eeyyen ta'e koondomiin cituun si qunnamee beekaa?	1. Eeyyen 2. Lakki	
411	Gaaffii 405 eeyyen yoo ta'e tarkaanfiin ati fudhatte maali?	1. Qoranoo HIV taasise 2. Tajaajila gorsa fayyaa dhaabbata fayyaatii argadhe 3. Saamunaadhaan qaama saalaa dhiqadhe 4. Calliseen akka iccitiitti qabadhe, kan biraa*	
412	Maamila wal-qunnamtii saalaa dhaabbataa qabdaa?	1. Eeyyen 2. Lakki	
413	Gaaffii 413 yoo eeyyen ta'e maamila wal-qunnamtii saalaa dhaabbataa qabaachuun maaliif barbaachise?	1. Deeggarsa qarshii taasisa 2. Dhiibbaa qaamaa narra ga'u narraa dhorka 3. Kan biraa yoo jiraate adda baasi	
414	Gaaffii 413 yoo eeyyen ta'e maamila wal-qunnamtii saalaa dhaabbataa waliin yeroo wal-qunnamtii saalaa raawwattu koondomii ni fayyadamtaa?	1. Eeyyen 2. Lakki	
415	Gaaffii 415 yoo eeyyen ta'e maamila wal-qunnamtii saalaa dhaabbataa waliin koondomii hangam fayyadamta?	1. Yeroo hunda 2. Yeroo tokko tokko	

416	Giddu-galeessaan guyyaatti wal-qunnamtii saalaa yeroo/nama meeqa waliin ni raawwatta?	_____	
417	Hojii wal-qunnamtii saalaa kana erga eegaltee ji'aan hangam ta'a?	_____	
418	Dhugaatii alkoolii I fayyadamtaa?	1. Eeyyen 2. Lakki	
419	Qoricha ni fayyadamtaa?	1. Eeyyen 2. Lakki	
420	Yeroo wal-qunnamtii saalaa raawwattu dhiibaan sirra ga'ee beekaa?	1. Eeyyen 2. Lakki	

* fincaaniin miiccuu, loomiin miiccuu.

Kutaa 5: Sababoota kenniinnsa tajaajila fayyaa waliin wal-qabatan

G	Gaaffii	Deebii fi koodii	Gara
501	Tajaajila fayyaa wal-hormaata saalaa argattee beektaa?	1. Eeyyen 2. Lakki	
502	Tajaajila fayyaa wal-hormaata saalaa eessaa argatta?	1. Dhaabbata fayyaa mootummaa 2. Dhaabata fayyaa dhuunfaa 3. Ka iraa adda baasi1w_____	
503	Tajaajila fayyaa wal-hormaata saalaa eessaa argachuu barbbaadda?	1. Hospitaala 2. Buufata fayyaa 3. Kiliniika 4. Kan biraa adda baasi ____	
504	Tajaajila fayyaa wal-hormaata saalaa yeroo akkamii argachuu arbaadda?	1. Guyyaa 2. Halkan 3. Yeroo hunda	
505	Gaaffii 504'f deebiin halkan yoo ta'e sababni isaa maali ?	1. Yeroo hojii waliin ni mijata 2. Qoolliffannaa hawaasaa xiqqeessuuf 3. Qoolliffannaa dhuunfaatu jira 4. Kan biraa yoo jiraate adda baasi_____	
506	Malootni karoora maatii iddoo/noonnoo hojii wal-qunnamtii saalaa raawwattutti ni argamaa?	3. Eeyyen 4. Lakk	
507	Gaaffi 506yoo eeyyen ta'e akaakuun isaanii maal fa'a?	5. Koondomii 6. Lilmoo 7. Kan irree jala kaawatan	

		8. Kan gadaamessa keessa kaawwatan 9. Kiniinii	
508	Baasii tajaajila qaroora maatii akkamiin madaalta?	1. Bilisaan kennama 2. Gatiin isaa xiqqaa dha 3. Gatiin isaa madaalawaadha 4. Gatiin isaa olka'aadha	
509	Qorannoo HIV taasiftee beektaa?	1. Eeyyen 2. Lakki	
510	Qorannoo hepaatayitasii (dhibee tiruu) siif taasifamee beekaa?	1. Eeyyen 2. Lakki	
511	Tajaajilli fayyaa wal-hormaata saalaa dhaabbata hiriyaan wal-barbaaduu kana keessa jiraa?	1. Eeyyen 2. Lakki	
512	Gaafii 513'f deebiin eeyyen yoo ta'e tajaajila maal fa'atu kennama?	1. Gorsaa fi qorannoo dhukkuboota wal-qunnnamtii saalaa 2. Gorsaa fi qorannoo ulfaa 3. Gorsaa fi kenniinsa karoora maatii	
513	Dhaabbanni hiriyaan wal-barbaaduu kun beellama ni kennaa ?	1. Eeyyen 2. Lakki	
514	Tajaajila dhaabbanni hiriyaan wal-barbaaduu kun kennu itti quufteettaa?	1. Eeyyen 2. Lakki	
515	Gaaffii 516'f yoo lakki ta'e sababni isaa maali?	5. Tajaajila gahaa ta'e hin kennu 6. Yeroon tajaajilli itti kennamu mijataa miti 7. Iddoon kiliniki itti baname mijataa miti 8. Kan biraa yoo jiraate _____	

Gaaffii koo fixeen jira galatoomaa **!!!**

Annex VI: Information sheet and verbal consent for Qualitative part

My name is _____. I represent the research team from Jimma University. We are conducting in-depth interview with individuals who are selected purposively based on their experience reach source of information concerning magnitude and determinants of unintended pregnancy among female sex workers. Thus, this interview is prepared for this purpose to get appropriate information concerning these issues. Our conversion will be recorded in order not to miss pertinent data during analysis. The information that we will obtain using this interview will be used only for the research purpose and, we need to assure you that confidentiality of your response will be kept. The study has no risk to you and doesn't affect your job carrier but is a little bit time consuming. Therefore, I politely request your cooperation to participate in this interview. You do have the right to respond at all or to with draw in the meantime, but your input has great value for the success of our objective.

Did you agree? Yes _____ no_____

Annex VII: IDI guides

A. **Back ground of the participant**

Age _____

Sex_____

Educational status _____

B. Questions related to the study aims regarding FSWs

1. What are the risk factors of unintended pregnancy do you think? ----------
2. What are services expected from confidentiality clinics? ----------
3. What are services being given by confidentiality clinics? ----------

Annex VIII: Declaration

I, the undersigned, MPH/Epidemiology student, acknowledge this thesis is my original work. All information obtained from other sources are properly acknowledged and cited. I agree to accept responsibility for the scientific ethical and technical conduct of the research paper and for provision of required progress reports as per terms and conditions of the faculty of public health.

Name of the student: **Dereje Kasaye**

Signature ----------

Place of submission: JU institute of health sciences, Faculty of public health, department of Epidemiology

Date of submission: --------/---------/----------

This thesis was submitted for examination with our approval as university advisor(s)

Advisors name: -

1. **Dr.Sahilu Assegid** (MD,MPH, Associate professor) Signature ----------
2. **Beliyou Abebe** (MPH in HPHB) Signature ----------