STI CARE SEEKING BEHAVIOR AND ASSOCIATED FACTORS AMONG FEMALE SEX WORKERS WORKING IN LICENSED DRINKING ESTABLISHMENTS OF ADAMA TOWN OROMIA REGIONAL STATE, ETHIOPIA 2017

BY: SHEWANGIZAW HAILEMARIAM

A THESIS SUBMITTED TO JIMMA UNIVERSITY, INSTITUTE OF HEALTH FACULITY OF PUBLIC HEALTH, DEPARTMENT OF POPULATION & FAMILY HEALTH; IN PARTIAL FULFILLMENT FOR THE REQUIREMENT FOR MASTERS OF PUBLIC HEALTH IN REPRODUCTIVE HEALTH.

May, 2017.

JIMMA, ETIOPIA.

JIMMA UNIVERSITY

INSTITUTE OF HEALTH

GRADUATE PROGRAMS COORDINATING OFFICE

STI CARE SEEKING BEHAVIOR AND ASSOCIATED FACTORS AMONG FEMALE SEX WORKERS WORKING IN LICENSED DRINKING ESTABLISHMENTS OF ADAMA TOWN OROMIA REGIONAL STATE, ETHIOPIA 2017

BY: - SHEWANGIZAW HAILEMARIAM (BSC)

ADVISORS: - ADERAJEW NIGUSSIE (ASSISTANT PROFESSOR, PHD FELLOW)

ALEMI KEBEDE (BSC, MPH)

ABSTRACT

Background: *Female sex workers constitute one of the high risk groups for sexually transmitted infections and Human Immunodeficiency Virus acquisition and transmission. In many societies Female sex workers face stigmatization, marginalization and discrimination, including in the health-care sector due to this fact great majority of female sex workers tend to self-diagnose and seek over-the-counter medication from pharmacies or use traditional home remedies for sexually transmitted infections treatment rather than visit health institution. Hence, assessing the factors that hinder or facilitate sexually transmitted infections care seeking behavior in this population group is imperative.*

Objective: *-To assess sexual transmitted care seeking behavior and associated factors among female sex working in licensed drinking establishment of Adama town, Oromia regional state, Ethiopia 2017.*

Methods: *A cross-sectional study was conducted from March 01/2017 to 30/2017 among 423 female sex workers selected by the means of 'quota' sampling approach. Interviewer administered standardized tool was used to collect data. The collected data were entered using EPI data version 3.1 and exported to SPSS version 20 for analysis. A final backward conditional multivariate logistic regression analysis was carried out to identify factors associated with sexually transmitted infections care seeking behavior.*

Result: *Among 423 female sex workers 390 were responded to the interviewer administered structured questionnaires making response rate of 92.2 %. Among the respondents 218 (55.9%) have utilized sexual transmitted infections care services. Among users of the services 80(20.5%) have utilized the service of treatment purpose, 69(17.7%) for screening purpose the rest visited for condom receiving and consultation service 32(8.2%), 36(9.2%) respectively. Majority of Respondents perceived a high level of Perceive susceptibility, Perceive severity, Perceive benefit, Perceive barrier and cue to action. In the final multivariate binary logistic regression model three constructs of the health belief model namely perceive susceptibility (AOR=2.330, P-value = 0.022), perceive severity (AOR= 3.257, P-value = 0.001) and cue to action (AOR=2.821, P-value = 0.002) were significantly associated with sexually transmitted infections care seeking behavior. Furthermore, knowledge of sexual transmitted infection (AOR=5.364, P-value < 0.001), having symptoms of sexual transmitted infection (AOR=3.953, P-value < 0.001), having non-paying sexual partner (AOR=1.956, P-value = 0.023) and duration of sex work (AOR= 0.5, P-value = 0.013) were among the modifying variables that show significant association.*

Conclusions: *The result of this research reveals that 3 components of the Health Belief Model namely perceived susceptibility and perceived severity and cue to action were significantly associated with sexual transmitted infection care seeking behavior. Among the modifying factors having sexual transmitted infection symptoms, knowledge of sexual transmitted infection, duration of sex work and having non-paying sexual partners were found to be strong predictors of sexually transmitted infection care seeking behavior among the female sex workers.*

Key Words*: female sex workers; perceptions; STI care seeking behavior; Adama, Ethiopia.*

ACKNOWLEDGEMENT

My deepest gratitude and sincere appreciation goes to my advisors Mr. Aderajew Nigussie and Ms. Alemi Kebede for their unreserved advices, comments, follow up and invaluable help from the very beginning of inception till to the write up of final version of the research.

I am very grateful to Jimma University for providing the opportunity to develop this research.

Furthermore, I extend my thanking to Adama FGAE confidential clinic and "Mekdem" Ethiopia staffs that were cooperative in offering imperative information.

Last but not least, I would like to express my appreciation to all voluntary female sex workers that were enthusiastically take part in the data collection process.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ACRONOMYS

AIDS: - Acquired Immune Deficiency Syndrome

BSC: - Bachelor of Science

BSS: - Behavioral Surveillance Survey

CD: - Communicable Disease

CSA: - Central Statics Agency

E.C: - Ethiopian Calendar

EPHI: - Ethiopian Public Health Institute

FGAE: - Family Guidance Association of Ethiopia

FHAPCO: - HIV/AIDS Prevention and Control Office

FSW: - Female Sex Worker

GUD: - Genital Ulcer Disease

HBM: - Health Belief Model

HIV: - Human Immunodeficiency Virus

HPV: - Human Papilloma Virus

IDI: - In–Depth Interviews

MAPRs: - Most At Risk Populations

SPSS: - Statistical Package for Social Science

STI: - Sexually Transmitted Infection

STICS: - Sexually Transmitted Infection Care Service

UN: - United Nation

CHAPTER 1: BACKGROUND

1.1 Introduction

Female sex workers have been recognized in Ethiopia since olden times, although there are no documented data as to when and where female sex workers first appeared in the country. Few sources link the beginnings of sex business with the movement of kings, nobles and warlords, the development of cities and the advancement of trading (1). In Ethiopia, it is illegal to operate a brothel establishment or procure sex workers for commercial purpose, but the sale of sex by women is not prohibited by law (2).

During the 1970s, female sex workers working in drinking establishments (hotels, bars and restaurants) and waitresses were periodically examined for sexually transmitted infections (STI) and other communicable diseases at government health institution, as a monitoring of the 'weekly Venereal Diseases (VD) Control Program'. Nevertheless, this periodic STI and CD examination service was discontinued in the 1980s following VD Control Program integration with general health services (3). In 1996 Female sex workers were recognized as population at risk of HIV by Federal Democratic Republic of Ethiopia Ministry of Health. FHAPCO in its 2010 report on the implementation of the UN Declaration on Commitment on HIV/AIDS As a matter of these declaration, female sex workers' access to HIV prevention, and care services has increased dramatically with a network of drop-in centers all over the country providing advice, condoms and income generating activities (4).

The number of women entering in sex business is increasing especially in the sub-Saharan African countries escalated by problems associated with urbanization, pressure from poverty, food and political insecurity and civil unrest. Female sex workers constitute one of the high risk groups for STIs and HIV/AIDS acquisition and transmission (5). In many societies FSW face stigmatization, marginalization and discrimination, including in the health-care sector, which may delay treatment seeking (6). Due to their high HIV prevalence, their increased ability to transmit HIV when co-infected with other STIs, and to the large population groups they reach through their sexual network, sex workers have long been targeted as the 'core group' most at risk of acquiring STI and HIV (7).

Sexually Transmitted Infections are a group of communicable diseases that are predominantly transmitted through sexual contact. They are among the most common causes of illness in the world and have far reaching health, social and economic consequences. STIs have public health importance because of their magnitude, potential complications and their interaction with HIV/AIDS. They affect the health and social wellbeing of women disproportionately by producing significant impact on their reproductive potential(8).

As with other communicable diseases, the distribution of STIs in a given population is not static; epidemics evolve through different phases characterized by changing patterns in the transmission of STIs between and within various sub populations. Three factors are believed to govern STI rates: (1) an agent's infectiousness (i.e., transmission efficiency per sexual contact), (2) its duration of infectiousness, and (3) the rate of sex partner change among infected persons. In early or well-controlled epidemics STIs are generally transmitted among high risk persons with high STI prevalence and multiple and frequent changes in sex partners ("core groups"). As epidemics evolve, STIs are spread from higher to lower risk individuals through individuals who have sexual contact with both ("bridging groups"). Bridging groups vary from society to society, but are often clients of sex workers or mobile men (e.g., Female sex workers, truckers, miners, migrant workers etc.) who may transmit infections from higher risk partners to their wives or girlfriends. Thus, targeted prevention programs aimed at core and bridging groups have been identified as important priorities for interruption of transmission and disease control(9).

Great priority should be given to improved STI screening and treatment behavior among female sex workers, especially given the finding that female sex workers tend to self-diagnose and seek over-the-counter medication from pharmacies or use traditional home remedies for STI treatment rather than visit STI clinics (10). According to national guidelines STI management of FSWs and their clients attending health facilities encompasses making a diagnosis through syndromic approach or asymptomatic screening; providing appropriate antimicrobial agents for the infection, providing education on treatment compliance, providing information on the nature of the infection and the ways of preventing infection, demonstrating the correct use of condoms, providing condoms and emphasizing consistent condom use, counseling to improve condom negotiating skills, arranging for treatment of regular partners (whenever possible); and arranging for follow-up examinations and regular attendances for medical check-ups (11).

Mitigation of STI burden is only possible when MARs utilize STI care service. Since care is sought when symptoms are perceived to be due to these infections, understanding how these symptoms are perceived or care is sought is crucial to control of STIs. Additionally, those clients who seek care for STI symptoms may decrease their risky sexual behaviors following clinic visit and their access to STI care service is an opportunity to deliver appropriate prevention interventions. So, the focus of this study is to identify STI care seeking behavior and associated factors among female sex workers working licensed drinking establishments of Adama town.

1.2 Statement of the problem

Female sex workers continue to bear a high burden of STIs including HIV infection in many countries. Study conducted in Nepal among female sex workers high prevalence of HIV and STI (syphilis) was evidenced the prevalence was high among older age low education and longer duration of sex work (12). Similar study conducted in Argentina has revealed high prevalence of syphilis (45.7%) found among female sex workers (13). Another study under taken in Nairobi, Kenya has revealed high prevalence HIV (29.5 %) and STI (22.7 %) among female sex workers. The prevalence had showed significance increase with older age and long duration of sex worker and low education level (14). The 2013 national MARPS survey has depicted that HIV prevalence among FSW was 24.7% and the prevalence of syphilis was four times higher than the general population. The reported vaginal discharge and genital ulcer in the last 12 months among the FSWs was 11.5 % and 7.9 % respectively (11). Oromia region first baseline assessment for mobile HIV counseling and testing program conducted in 10 towns of Oromia has estimated high number of female sex workers in Adama town. In the town 6000 female sex workers were estimated who work in the town and 9% of HIV prevalence was evidenced and STI was the second prevalent health problem among the female sex workers (15).

The continuing stigma and discrimination surrounding women who engage in sex work make the provision of comprehensive STI / HIV prevention, care, treatment and support for this vulnerable population challenging (16). Only one third of FSWs in Sub-Saharan Africa had reported to receive adequate STI / HIV prevention interventions and very few number of female sex workers had access to STI/HIV prevention, treatment, care and support (17). Female sex workers are venerable to a number of negative health consequences. They engage in high risk sexual behaviors, which might predispose them to sexually transmitted infections, rape, violence and adverse reproductive outcome. Despite these facts, they are in a poor position to utilize health service particularly sexual health care service when compared to the general population due to perception of health and illness, financial constraints and unfavorable conditions in the health care setup (18). Furthermore, poor socio-economic conditions and working under hardship in order to financially support one's family contributes to inadequate STI care service utilization among this group(19).

Female sex workers usually perceive themselves as inferior than other population and tend to lead their life in social isolation and this perceived disadvantaged position in the society has impacted the poor health care service utilization by the female sex workers(20). Studies have evidenced that social and emotional factors inhibit female sex workers from utilizing STI care service (21). There is a firm association between behavior to seek care timely and the perceived outcome of service utilization. The promptness of seeking care service will be due to the female sex workers own evaluation of their health, illness and risk behavior (22,23).

Due to delay in treatment seeking female sex workers suffer from the complications or late effects of STI infections, such as pelvic inflammatory disease (60 % of cases of pelvic inflammatory disease is caused by an STI) the long-term sequelae include ectopic pregnancy, chronic pelvic pain and tubal infertility. The increased risk of pelvic inflammatory disease - induced infertility is a health problem that is particularly important as female sex worker try to leave out of the sex work and change into other personal roles, such as trying to have a family (24). Even though there is limited data on the incidence and prevalence of STIs in Ethiopia, the prevalence of STIs is generally believed to be high similar to that of other developing countries. Due to low level of knowledge regarding STI care service utilization large proportion of client seek care from traditional healers, pharmacy pharmacists, drug vendors shops and market places, where the care is not the standard practice (11).

As to the investigators knowledge, this is the first study conducted among female sex workers on STI care seeking behavior. Previously published studies that applied HBM were conducted among groups other than female sex workers. The existing studies that have been undertaken in this group mainly assess HIV screening uptake, knowledge about STIs and condom utilization etc. So, this study addressed STI seeking behavior of female sex workers' and the predicting factors.

1.3 Significance of the study

According to the reviewed literatures no study has been conducted in Ethiopia regarding STI care service utilization. As far as the investigators knowledge in concerned and from reviewing the literatures, there is limited literature that employed HBM in predicting STI care seeking behavior. So this study can fill the identified gap by applying the behavioral model to assess the factors associated with STI care seeking behavior. The application of a theoretical model to assess the relationships between HBM perception and STI care seeking behavior is fundamental in explaining the determinants of STI care seeking behavior.

There are thus complex aspects that prevent female sex workers from seeking healthcare services, how female sex workers in Ethiopia utilize STIs healthcare services has received insufficient attention and is not well documented. Understanding how female sex workers seek STI care and the factors that influence their care seeking behavior will provide policy makers, program planners and managers with information needed to design appropriate interventions for female sex workers. Furthermore, the study will provide baseline information for further study in the area.

CHAPTER 2: LITERATURE REVIEW

2.1 STI care service utilization among female sex workers

In many countries most of the health facilities which are equipped and oriented to serve the general public are not friendly to carry out management of STIs among MARPS specially, female sex workers. As a result, Female Sex workers find it difficult to access clinical services in public, private, NGO and faith based health facilities. Moreover, Female sex workers are often reluctant to attend regular clinics because they are often badly treated, stigmatized or rejected(11). The study conducted in Loas, Nigeria has evidenced low STIs care service utilization among female sex workers. They tend not to use sexual health care services due to STI-related stigma, high cost of treatment, and lack of privacy and confidentiality as well as negative health care provider attitudes (25). Another study conducted in Kunming , China has reveals high level of STI symptoms and low STI care service utilization among female sex workers (26). Study undertaken in Pakistan 35% of the female sex workers with STI symptoms had sought care for the symptoms only age of the female sex worker and specific genital symptom (genital ulcers) were the predictors of STI care service utilization (27). Study conducted in Rwanda shows low STI care service utilization among female sex workers. Long waiting time, lack of medicines, the behavior or attitude of the provider, inability to discuss problems or concerns and cleanliness of the facility were the major barriers mentioned by the client (28). Similar problems were also identified as barriers to treatment seeking among female sex workers of Pakistan (27).

Study conducted in Iran on Correlates of HIV Testing among female sex workers has evidenced that knew a place for HIV testing, female sex worker knowledge of sexual prevention of HIV and had ever injected drugs were the strong predictors of HIV screening uptake among the female sex workers. There was no relation with age, marital status, educational level, having other sources of income than sex work, age at sex work debut, age at first drug use, self-perceived risk of HIV, sex with a non-paying partner, and experience of stigma at healthcare settings (29).

Study undertaken in Davangere city, central karnataka has evidenced high prevalence of STI symptoms among female sex workers per-vaginal discharge (53%) and pain during intercourse

(35 %) were the most common symptoms among the female sex workers. only 15 % sought care within one week and 23.2 % did not take any treatment for their genital symptoms. From those who had treatment, 51.2 % have visited NGO and 11.3 % governmental clinic the rest sought care at pharmacy and traditional healer. Social stigma attached with the sex work has been reported as a barrier for not utilizing STI care service among female sex workers (30). Another study conducted in Nigeria 36.5% of the female sex workers haven had at least one episode of sexually transmitted infection. Among the female sex workers who had experienced the symptoms 99.0 % of them had sought care from hospital or health center (50.4%), pharmacy (32.5%) while 3.4% sought treatment through self-medication (31).

Another study conducted in Savannakhet, Laos also show high prevalence of STI symptoms among female sex workers. Majority of the female sex workers (86.7 %) had experienced STI symptoms. Abnormal vaginal discharge and lower abdominal pain were the most commonly reported symptoms among female sex workers. From those with STI symptom two-thirds had sought care, the rest had not.53% of female sex workers have sought care from drop-in center and 24% from public clinics and the rest sought care from pharmacy and private clinics. The common barrier mentioned by the female sex workers for not using the service were distance of the clinic from their residence (50%), long waiting times (23%) lack of time to get the service (15%) and the rest did not have the information where they could get the service (25).

Low perception of self –perceived risk is among the reason for high prevalence of STI symptoms among female sex workers. Study conducted in Ogun state, Nigeria has evidenced that among the female sex workers only 16 % had self-perceived risk of STI. Comparing self-perceived risk of STI among female sex workers with the symptoms and without symptoms female sex workers with STI symptoms had less self-perceived risk (13.3%) than those without symptoms (16.8%). comparing with respect to age of female sex workers age youngers had more self- perceived risk of STI infection than the older (32).

Another study conducted in Nigeria has revealed high perceived susceptibility (96.0%) among female sex workers. Majority of the female sex workers perceived themselves as susceptible to STI infection due to their risky sexual behavior. Their perceptions of susceptibility were significantly associated with their age, education level and sex workers age more than 25 years and no significant association has been evidenced with marital status and duration of sex work

(33). Study conducted in Loa has showed that duration of sex work was strong predictor of STI care seeking behavior among female sex worker who had sought care for their genital symptoms. According to the study female sex workers with more than one year or more were more likely to seek treatment compared to those who were new in sex work (34).

2.2 knowledge of STIs among female sex workers

Evidences suggest that STIs are poorly understood by female sex workers. Study that assessed comprehensive knowledge of STIs among female sex workers in Peru suggested that majority of the female sex workers had poor comprehensive STIs knowledge(35). Another study undertaken in Urban Communities of Ogun State shows that majority of the female sex workers mentioned at least three sign and symptoms of STI (Vaginal discharge 96.2 % Urethral discharge in men 74% and Painful urination 58 %) and the most mentioned STIs by the female sex workers were gonorrhea (66.4%); syphilis (42.7%) and HIV (11.5%). Regarding the prevention of STI majority of the female sex workers have mentioned condom use as the best way of prevention followed by abstinence from sex (6.9%) and avoid sharing clothes particularly under ware (32). Another study undertaken in Cosmopolitan city in Nigeria majority of the female sex workers mentioned vaginal itching (60.4%) as symptom of STI followed by vaginal discharge (48.3%), dysuria (46.1%), lower abdominal pain (43.0%) and penile discharge (39.6%). Regarding STI prevention only 36.5% of the female sex workers mentioned that they knew STI can be prevented while 33.1% knew that STI can be treated and 13.9% knew that STI could be asymptomatic (33).

According to Ethiopian BSS report on female sex workers Knowledge of STIs in women, the most commonly mentioned sign and symptoms of STI were burning sensation on urination, and genital discharge (42.9% and 42.5% respectively), followed by genital ulcers or sores and foul smelling discharge (36.8% and 33.7% respectively). 20.8% of respondents mentioned an itching sensation as a symptom of STIs in women (36).

2.3 Sexual behaviors

Female sex workers are vulnerable to STIs as a result of their sexual risk behavior a number of studied had evidenced the overwhelming presence of risk sexual behavior among this group. Studies carried out in Blantyre, Bahirdar and Adama on female sex workers show low level of

condom utilization when having sex with both regular and non-paying partner (37–39). Due to the pressure from their clients' female sex workers usually engaged in risky sexual behavior. Evidences suggest that female sex workers were driven by offering extra- payment to have a sex without condom (40). Study conducted at Hotspot Areas of the Arada Sub-city, Addis Ababa show that majority of the female sex workers (66.4%) have used condom in the last time of sexual intercourse and the rest hadn't. The frequently mentioned reasons for not using the condom were client rejection, over intoxication and sexual pressure reduction (17). Another study done in Adama on work-related violence and inconsistent condom use 35% of respondents reported inconsistent condom use with regular, non-paying partners, while only 0.3% reported inconsistent condom use with regular clients and 1% with non-regular clients (39).

2.4 HBM and its application regarding STI care seeking behavior

For five decades the Health belief model (HBM) has been one of the most widely used conceptual frame works in health behavior. The HBM has been used both to explain change and maintenance of health related behaviors and as a guiding framework for health behavior intervention. The HBM has been expanded, broken down in to components, compared to other frameworks and analyzed using a wide array of multivariate analytic techniques(41).

It is now believed that people will take action to prevent or control ill health conditions, if they regard themselves as susceptible to the condition, if they believe it would have potentially serious consequences, If they believe that a course of action available to them would be beneficial in reducing either their susceptibility to or the severity of the condition, and if they believe that the anticipated barriers to (or cost) taking the action are outweighed by its benefits Accordingly the same assumption is believed to be holds true for STIs as well(42).

Perceived susceptibility in relation to the HBM indicates that knowledge about STIs not necessarily result in STI care service utilization. If knowledge of STIs is to be translated into action, each female sex worker must perceive that she is susceptible to STIs in her lifetime (perceived susceptibility). Secondly, she must perceive STI is a serious condition (perceived severity of STI) e.g., STIs is not easily treatable. Thirdly, she must perceive that there are benefits (perceived benefits) to STIs care service utilization such as early detection and treatment of STIs. Finally, she must also perceive that the potential barriers to taking preventive actions,

for example costs, are outweighed by potential benefits of taking preventive action, such as early detection and treatment of STIs, which are beneficial for health and life..

2.4 Conceptual frame work

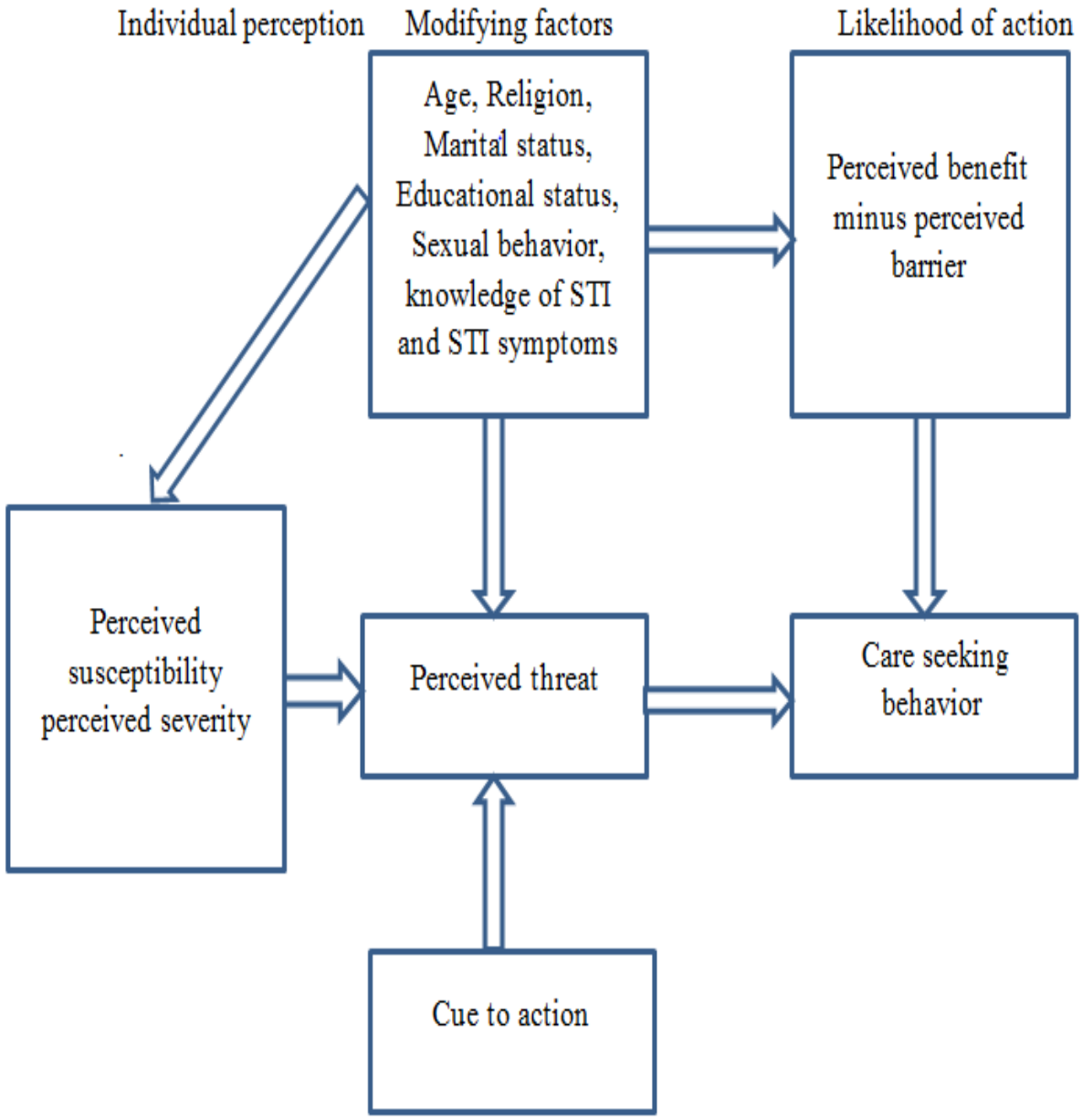

Figure 1:- Conceptual frame work for STI care seeking behavior and associated factors among female sex workers Adama town, Oromia regional state 2017

Adapted from Strecher, V., and Robsentock predictors of chlamydia and gonorrhea screening behaviors among high-risk young women.(43).

According to the HBM (Figure1), modifying factors and perceptions of the disease simultaneously influence the likelihood of taking a recommended health action in this case STI care seeking behavior. Modifying factors include socio-demographic variables, sexual behavior and knowledge of STI may be understood as either mediating or moderating the relationship between key HBM constructs and the likelihood of taking action (STI care seeking behavior).

CHAPTER 3: OBJECTIVE

3.1 General objective

- To assess STI care seeking behavior and associated factors among female sex workers working in licensed drinking establishments using health belief model, in Adama town, Oromia Regional state, Ethiopia, 2017.

3.2 Specific objectives

- To assess STI care seeking behavior among female sex workers
- To assess the level of perceptions among female sex workers
- To identify factors association with STI care seeking behavior among female sex workers

CHAPTER 4: METHODS

4.1 Study area and Period

The study was conducted from March 01/2017 to 30/2017 in Adama town, Oromia National Regional State found at the distance of 99 km from Addis Ababa, based on the 2007 Census conducted by the Central Statistical Agency of Ethiopia, the city has a total population of 220,212, of whom 108,872 are men and 111,340 women. The town has a high concentration of bars, hotels, and night clubs where most female sex workers work. The majority of these facilities are located along the main Addis-Djibouti road, Adama- Asella road, and Kebele 15. In the town, there are an estimated 6,000 female sex workers and 95 licensed drinking establishments. (15,44) Adama hosts several schools and colleges with a high number of youth. There are also some street girls and female school youth who practice commercial sex. Moreover, numerous industries and plantations attract many migrant workers from different part of the country.

4.2 Study design

A cross-sectional study design was employed.

4.3 Source population

All female sex workers working in licensed drinking establishments found in Adama town.

4.4 Study population

Female sex workers who were randomly selected from licensed drinking establishments and residing in Adama town by the time of the data collection process were considered to be the study population.

4.4.1 Inclusion criteria

All female sex workers of age [15-45] group working in licensed drinking establishments at the time of data collection

4.4.2 Exclusion criteria

Female sex workers working for less than 12 month were excluded from the study.

4.5 Sample size determination

Sample size was determined using single population proportion formula n= $(Z\ a\ /_2)^2\ P \times (1-p)\ /d^2$), with an assumption of non–response rate of 10%. Since there is no similar study conducted in Ethiopia regarding STI care seeking behavior among female sex workers, during sample size calculation prevalence of STI care seeking behavior among female sex workers of Adama Town was assumed to be 50% in order to get larger sample size so that findings would be more reliable. Absolute precision (d) and Z score for 95% CI were assumed to be 5%, and 1.96, respectively. Thus, the calculated sample size using this formula was.

$$n= \frac{(Z\ a\ /_2)^2\ P \times (1-p)}{d^2} = \frac{(1.96)^2 X\ 0.5(1-0.5)}{(0.05)^2} = 384$$

Assuming 10% non - respondent rate the total sample size

For the study will be:-

n= 384 + 10% (384)

= 423

4.6 Sampling procedure

A quota sampling approach was employed to recruit the respondents. (As per WHO sampling hard to reach population recommendations and Ethiopian behavioral surveillance survey (36,45)). Preliminary exploration was undertaken to figure out the minimum number of female sex worker working in the drinking establishments for this list of all licensed drinking establishment was required to undergo the preliminary exploration and this registration list was obtained from Adama Town cultural and tourism office. The registration list contained information such as establishment's address (kebeles and phone number), and types of the drinking establishments. Identification of the name of each establishment achieved by contacting and consulting with community health agent of each respective kebele offices and voluntary female sex workers working in FGAE confidential clinic. Based on the registration list the establishments where verified whether they are engaged in the business or not furthermore the minimum number of female sex workers working in each establishment was identified in the preliminary exploration. According to the preliminary exploration there were 120 drinking establishment in the town that are engaged in the business and the minimum number of female

sex workers working in the establishments was found to be four. For the purpose of assigning equal "quota" to each drinking establishment the total sample size was divided by four which is the minimum number of female sex worker in the establishment and it gives 106 establishments. From the total of 120 establishments 14 establishments were excluded using lottery method. Finally, four female sex workers from each establishment were recruited in order to achieve the total sample size required.

4.7 Data collection

Data was collected using standardized questionnaire the questionnaire comprises 5 components respondent's Socio demographic characteristics, sexual behaviors , STI knowledge, care service utilization and HBM variables. Tool for Respondent's Socio demographic characteristics, sexual behaviors, STI knowledge and care service utilization is adapted from family health international (FHI) HIV/AIDS/STD. Tool for HBM variables adapted and modified from a previous study and sample questionnaire outlined (42). Data was collected by face to face interview using structured questionnaire. Ordinary data collectors like health professional might face difficult in addressing them due to their potential unflattering behavior and may have no information regarding the place where they spend their day time. For the above mentioned concern ten voluntary female sex workers that have already been working with the FGAE confidential clinic were hired as data collectors. Two health professionals (BSC in public health) having previous experience in such type of study were hired as facilitators.

4.7.1 Measurement

Perceived susceptibility: - It was measured by asking respondents a set of 5 questions. The responses for these items ranged from 1 (strongly disagree) to 5 (strongly agree).

The result was dichotomized in to two "High Perceived susceptibility" and 'Low Perceived susceptibility" based on the mean score of Perceived susceptibility.

Perceived severity: - It was measured by asking respondents a set of 5 questions. The responses for these items ranged from 1 (strongly disagree) to 5 (strongly agree).

The result was dichotomized in to two "High perceived severity" and 'Low perceived severity" based on the mean score of Perceived susceptibility.

Perceived benefit: - It was assessed by asking respondents a set of 5 questions.

The responses for these items ranged from 1 (strongly disagree) to 5 (strongly agree).

The result was dichotomized in to two "High perceived benefit" and 'Low perceived benefit" based on the mean score of Perceived susceptibility.

Perceived barrier: -It was assessed by asking respondents a set of 5 questions.

The responses for these items ranged from 1 (strongly disagree) to 5 (strongly agree). The result was dichotomized in to two "High perceived barrier" and 'Low perceived barrier" based on the mean score of Perceived susceptibility.

Cues to action: - It was measured by asking respondents a set of 3 questions. The responses for these items ranged from 1 (strongly disagree) to 5 (strongly agree).

The result was dichotomized in to two "High cues to action" and 'Low cues to action" based on the mean score of Perceived susceptibility.

Knowledge of STI: - Knowledge of STI was measured by asking respondents 8 question.

The responses for the first items was 1("Yes") 0 ("No") and the rest 2 items asks to list STI symptoms in male and female. The correct response for yes no question had a score of one and if the respondent correctly mentions at least one symptoms of STI in female would have a score of 1 and if the respondent correctly mention at least one symptoms of STI in male would have a score of 1. Then scored points were dichotomized in to Good knowledge and poor knowledge depending on the mean score of knowledge of STI.

4.8 Study variable

4.8.1 Dependent variable

- STI care seeking behavior

4.8.2 Independent variable

- Age
- Educational status
- Duration of sex work
- Marital status
- Religion
- Past history of STI symptoms
- Having non- paying client
- Type of paying client
- Use condom with non-paying client
- Use condom with paying client
- Age at first sexual intercourse
- Sexual behaviors
- STI knowledge
- perceived susceptibility
- perceived severity
- perceived benefits
- perceived barriers
- Cue to action

4.9 Operational definition

- **STIs care seeking behavior**: - If female sex worker ever utilized STI care service regardless of the purpose be it for treatment, receiving condom, screening, and consultation etc. in the past 12 month prior to the study.
- **Perceived susceptibility: -** The extent to which respondents feel about likelihood of getting infected with STI.

  "High perceived susceptibility":- study participant whose mean score for perceived susceptibility is > 3.00

  "Low perceived susceptibility":- study participant whose mean score for perceived susceptibility is $\leq$ 3.00
- **Perceived severity:** The extent to which respondents feel about the seriousness of STIs.

  "High perceived severity":- study participant whose mean score for perceived severity is > 3.00

  "Low perceived severity":- study participant whose mean score for perceived severity is $\leq$ 3.00
- **Perceived benefit**: - The extent to which respondents feel about the benefit of STI care service utilization.

  "High perceived benefit":- study participant whose mean score for perceived benefit is > 3.00

  "Low perceived benefit":- study participant whose mean score for perceived benefit is $\leq$ 3.00
- **Perceived barrier**: - The extent to which respondents feel about the tangible and psychological cost of STI care service utilization.

  "High perceived barrier":- study participant whose mean score for perceived barrier is > 3.00

  "Low perceived benefit":- study participant whose mean score for perceived barrier is $\leq$ 3.00
- **Cues to action**: - Respondents Strategies to activate "readiness" to STI care service utilization.

  "High cues to action":- study participant whose mean score for cues to action is > 3.00

  "Low cues to action":- study participant whose mean score for cues to action is $\leq$ 3.00
- **Good knowledge**: - study participant whose mean score for knowledge questions is $\geq$ 4.00
- **Poor knowledge**: - study participant whose mean score for knowledge questions is < 4.00
- **Consistent condom use**–Using condoms at every sexual intercourse during the last 12 months prior to the study.

Note:-

- The health belief model constructs and knowledge of STI are operationalized in this study as per similar studies conducted elsewhere (46,47) and (35,48) respectively.

4.10 Data analysis

Data was checked for completeness, edited, cleaned, coded and entered in to EpiData version 3.1 and then exported to SPSS version 20 for analysis. Univariate analysis was employed, first frequencies of each items was observed then the descriptive (measures of central tendencies and variations) was examined. Bivariate logistic regression analysis was used to identify any significant association with STI care service utilization and selected variables. The variables with P value <0.25 in bivariate logistic regression were entered in to multivariate logistic regression to get factors associated with STI care seeking behavior. A final backward conditional multivariate logistic regression was performed to identify what factors best explain STI care seeking behavior. P-value of 0.05 or lower was taken to declare that the association is statistically significant. Strength of association of the variables was described using odds ratio at 95% confidence level. The result was presented as frequency table, graph and discussed with finding. Finally, possible recommendations were made based on the finding.

4.11 Data quality control

To maintain the quality of data questionnaires was prepared first in English then translated to Amharic and then back to English in order to maintain its' consistency. Three days training was provided for data collectors and supervisors about the objectives of the study and data collection process. The questionnaire was pretested on 5% of the actual sample size in Mojo town which is 18 Kilometer from the study area. Based on the pre-test data reliability test (Chrombach α) was calculated to check the internal consistency of the items under each constructs. The reliability estimate showed that all of the constructs had 'Chrombach α' which was between the recommended value(49) (perceive susceptibility α = 0.73, perceive severity α = 0.89, perceive barrier α = 0.88, perceive benefit α = 0.86, cue to action α = 0.77 and knowledge α = 0.76). Finally the completed questionnaires were checked after collection for completeness and consistency by facilitators and principal investigator.

4.12 Ethical consideration

After approval of the proposal, ethical clearance was obtained from Jimma University Institutional Research Board (IRB). Permission was also obtained from Adama town administration and Health department as well. Informed consent was obtained from each participant after explaining the purpose of the study. The anonymity of data was kept at all stage of data processing.

4.13 Dissemination of finding

The finding of the study was submitted to Jimma University Institute of health, department of Population and Family Health. Findings of the study will be disseminated for Oromia regional health Bureau, zonal health bureau, district health offices and various NGOs that work on female sex workers or STI. Lastly, Effort will be made to present in various seminars and workshops and attempts will be made to publish the results on national and international journals.

CHAPTER 5: RESULT

5.1 Socio - demographic characteristics

Among 423 female sex workers selected in the study, 390 were responded to the interviewer administered structured questionnaires making response rate of 92.2 %. The mean age of the respondents was 24.05 with SD of 4.18. The minimum and the maximum age of respondents were 18 and 40 respectively. The overall socio-demographic characteristics of the study participants are summarized by table 1.

Table 1:- Socio demographic characteristics of female sex workers working in licensed drinking establishments of Adama town Oromia regional state, Ethiopia, March, 2017 (N= 390)

No	Variables	Response	Frequency	Percent
1.	Age	≥24	226	57.9
		25-34	157	40.3
		≤35	7	1.8
		Total	390	100
2.	Educational status	Unable to read and write	52	13.3
		Read and write	47	12.1
		Grade 1-8	158	47.0
		Grade 10-12	86	22.1
		Above grade 12	22	5.6
		Total	390	100
3.	Marital status	Married	58	14.9
		Single	332	85.1
		Total	390	100
4.	Religion	Orthodox Christian	169	43.3
		Muslim	101	25.9
		Protestant Christian	73	18.7
		Catholic Christian	45	11.5
		Other	2	0.5
		Total	390	100
5.	Any family to support	Yes	185	47.4
		No	205	52.6
		Total	390	100
6.	Duration of sex work	1-3 Years	226	57.9
		>3	164	42.1
		Total	390	100

5.2 Factors related to respondents sexual behavior

Overall, more than 59.7% had used a condom consistently with paying clients during the past 12 month prior to the study. Majority of the FSWs (69%) had non-paying sexual partners among them 57.5% used condom consistently, when having sex with their non-paying sexual partners during the past 12 month prior to the study. Summary of respondents' sexual behavior is shown by table 2.

Table 2:-Sexual behavior of female sex workers working in licensed drinking establishments of Adama town Oromia regional state, Ethiopia, March, 2017 (N= 390).

No	Variables	Response	Frequency	Percent
1.	Age at first sexual intercourse	Less than 10 years	19	4.9
		10 - 15 years	172	44.1
		16 – 18 years	151	38.7
		Above 18 years	48	12.3
		Total	390	100.0
2.	Non-paying sexual partner	Yes	269	69.0
		No	121	31.0
		Total	390	100.0
3.	Number of non-paying partners	One	68	17.4
		More than one	201	51.5
		Total	269	100
4.	Condom use with non-paying client during the last 12 month	Yes	141	57.5
		No	116	42.5
		Total	273	100
5.	Condom use with paying client during the last 12 month	Yes	233	59.7
		No	157	40.3
		Total	390	100.0
6.	Type of paying client during the last 2 week	Farmers	52	13.3
		Employees	66	16.9
		Merchants	46	11.8
		Students	77	19.7
		Soldiers	52	13.3
		Daily laborer	34	8.7
		Farmers	63	16.2
		Truck drivers	52	13.3
		Total	390	100.0

5.3 Common STI symptoms in the past 12 month

Female sex workers were asked if they had history of common symptoms of STIs syndromes in the past 12 months, the majority 276 (70.8%) had history one or more of the symptoms of STIs. The common STIs symptom reported by the female sex workers in the past 12 month prior to the study is summarized by table 3.

Table 3:- Self-reported symptoms of STIs among female sex workers working in licensed drinking establishments of Adama town Oromia regional state, Ethiopia, March, 2017 (N= 390)

No	Symptoms	Frequency	Percent
1.	Genital Discharge	120	30.8
2.	Burning Pain during Urination	78	20
3.	Genital Ulcers/sore	72	18.5
4.	Swellings In Groin Area	60	15.4

Note: - *Multiple responses were possible; percentages calculated according to the female sex worker involved in each category and do not add up to 100 percent.

5.4 Female sex workers' STIs knowledge

Regarding Knowledge of STIs all of the respondents claimed to have ever heard about sexually transmitted infection (STIs) among them 179 (45.9 %) of the respondent mentioned that STI can be prevented, 162 (45.9 %) mentioned that STI can be cured and 139 (35.6%) mentioned that STI can be asymptomatic. One hundred sixty two (41.5%) of respondent correctly responded to the statement which inquires "people can protect them self's by using condom correctly and consistently" and 152 (39%) correctly responded to the statement which inquires "having one of STIs other than HIV can increase risk of acquisition of HIV". Female sex workers were also asked about the common sign and symptoms of STI both in women and men, 225 (57.7%) of the respondent mention at least one sign and symptom of STI in women the common mentioned symptoms were abdominal pain, genital discharge, foul smelling discharge, pain on urination, genital ulcers /sores, swellings in groin area. Concerning symptoms of STI in men 265 (67.9%) of respondent mention at least one symptom of STI in men the common mentioned symptom in men were genital discharge, burning pain during urination, genital ulcers /sores and swellings in groin area. The overall comprehensive knowledge score out of eight questions were calculated

by summing the score of each item and one hundred eighty seven (47.9%) of the respondents had good knowledge of STI and the rest two hundred three (52.1%) of respondent had poor knowledge of STI.

5.5 Female sex workers' STI care seeking behavior

Among the respondents 218 (55.9%) have utilized STI care services for different reason in the past 12 month prior to the study. Among users of STI care services 80(36.7%) have utilized the service of treatment purpose, 69(31.6%) for screening purpose the rest visited for consultation service and condom receiving 36 (16.5%) and 32 (14.7%) respectively. Out of 276 respondents who had history of STI symptoms, only 142 (51.4%) sought some form of treatment for their condition. When asked for the place where they sought treatment, 61(43.0%) sought treatment in NGO clinics, 43(30%) private clinic, 16 (11.3%) government hospital, 12 (8.5%) pharmacy, the rest 10 (7%) sought treatment from traditional healing. Among those who had sought care 78% of the respondents had visited health care within 1 month of symptom recognized. Those FSWs who hadn't sought care for their genital symptoms mentioned different barriers in utilizing the services, negative staff attitude, lack of privacy, long waiting time and high cost of treatment were the most frequently mentioned barriers in utilizing the service as shown in the figure below.

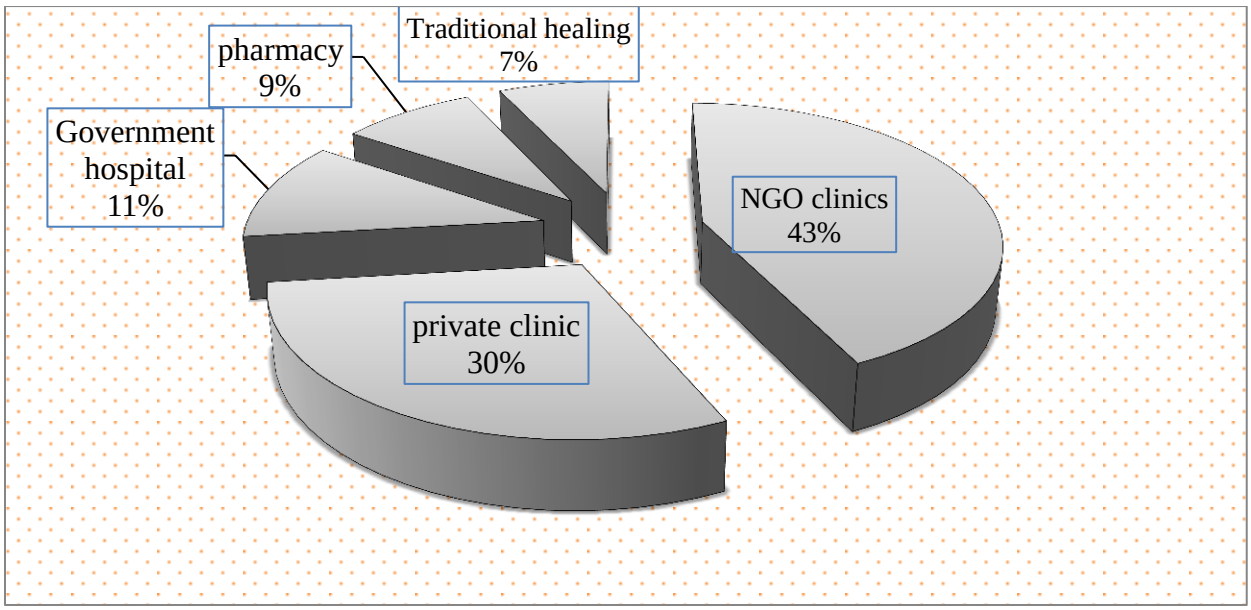

Figure 2:- Distribution the place where female sex workers sought care for their genital symptoms, Adama town Oromia regional state, Ethiopia, March, 2017 (N= 390).

5.6 Measurements of theoretical constructs

Table 4:- Mean and standard deviation of theoretical constructs scores of female sex workers working in licensed drinking establishments of Adama town Oromia regional state, Ethiopia, March, 2017 (N= 390).

No	Theoretical constructs	No utilized STI care service		Utilized STI care service	
		Mean	Std. Deviation	Mean	Std. Deviation
1.	Perceive susceptibility	3.20	0.86	3.82	0.75
2.	Perceive severity	3.14	0.90	3.88	0.78
3.	Perceive benefit	3.28	0.91	4.02	0.74
4.	Perceived barrier	3.77	1.03	3.78	1.05
5.	Cue to action	3.06	0.90	3.84	0.80

As shown in the above table respondents perceive a fear high score for all health belief model perception. When the theoretical construct dichotomized in to high and low depending on the mean score, majority of the respondent had high level of HBM perception as shown in Figure 4.

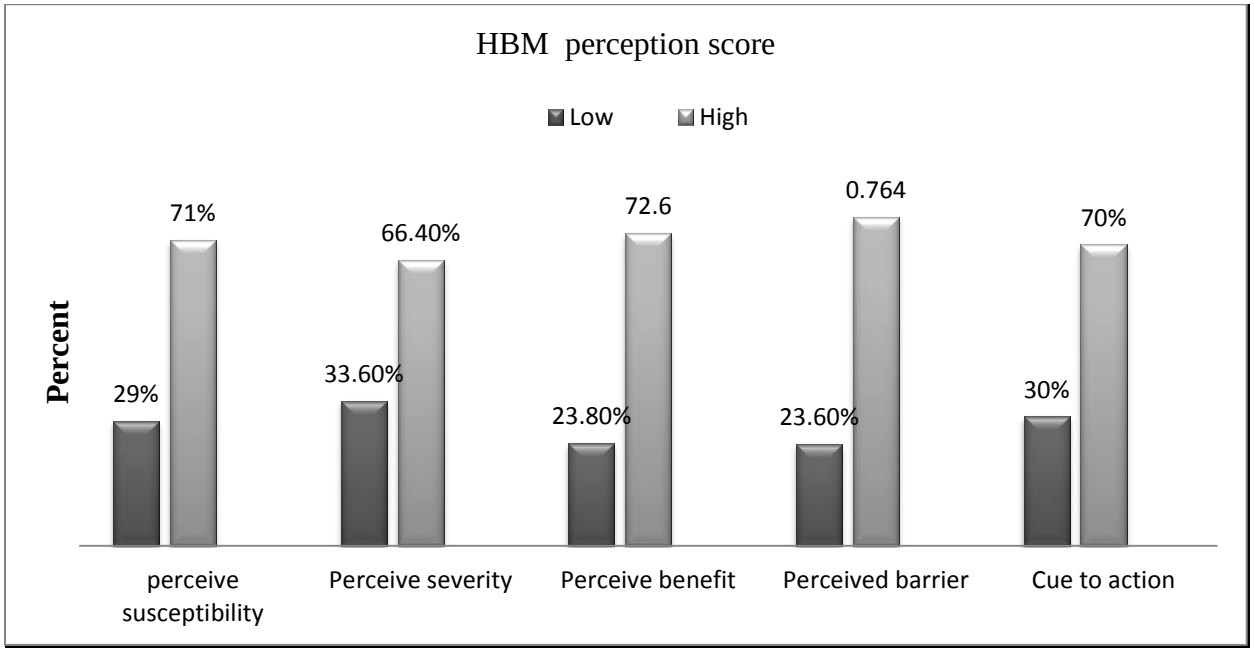

Figure 3:- The score of HBM perceptions of female sex workers working in licensed drinking establishments of Adama town Oromia regional state, Ethiopia, March, 2017 (N= 390).

5.7 Bivariate logistic regression

This section depicts the results from bivariate logistic regression intended at determining the likely effect of individual explanatory variables on STI care service utilization.

Table 5:- Bivariate logistic regression of socio-demographic, sexual behavior and theoretical variables of the study subject with dependent variable, Adama town Oromia regional state, Ethiopia, March, 2017 (N= 390).

No	Variables	Utilized n [%]	Not Utilized n [%]	COR at 95% CI	P – value
1.	**Educational status**				
	Unable to read and write	29 [55.8%]	23 [44.2%]		
	Read and write	31 [66.0%]	16 [34.0%]	0.430 (0.680, 3.470)	0.301
	Grade 1-4	47 [53.4%]	41 [46.6%]	-0.095 (0.456,1.811)	0.787
	Grade 5-8	61 [64.2%]	34 [35.8%]	0.353 (0.714, 2.836)	0.316
	Grade 10-12	35 [40.7%]	51 [59.3%]	-0.608 (0.271,1.092)	0.087
	Above grade 12	15 [68.2%]	7 [31.8%]	0.530 (0.594, 4.861)	0.323
2.	**Marital status**				
	Single	185 [55.7%]	147 [44.3%]		
	Married	33 [56.9%]	25 [43.1%]	1.049 (0.597,1.842)	0.868
3.	**Support any one**				
	No	114 [55.6%]	91 [44.4%]		
	Yes	104 [56.2%]	81 [43.8%]	1.025 (0.687,1.530)	0.904
4.	**Duration of sex work**				
	1-3 Years	138 [61.1%]	88 [38.9%]		
	3>	80 [48.8%]	84 [51.2%]	0.607 (0.404,0.912)	0.016
5.	**Having non-paying sexual partner**				
	No	56 [46.3%]	65 [53.7%]		
	Yes	162[60.2%]	107 [39.8%]	1.757 (1.140, 2.709)	0.011
6.	**Use condom with non- paying client**				
	No	23 [69.7%]	10 [30.3%]		
	Yes	143 [59.6%]	97 [40.4%]	0.656 (0.297,1.447)	0.296
7.	**Use condom with paying client**				
	No	84 [53.8%]	72 [46.2%]		
	Yes	134 [57.3%]	100 [42.7%]	1.783 (0.783,1.768)	0.435

8.	**Type of paying client in the past 2 weeks**				
	Farmers	24 [46.2%]	28 [53.8%]		
	Employees	39 [59.1%]	27 [40.9%]	1.685 (0.809,3.509)	0.566
	Merchants	25 [54.3%]	21 [45.7%]	1.389 (0.626,3.079)	0.822
	Students	52 [67.5%]	25 [32.5%]	2.427 (1.76,5.008)	0.022
	Soldiers	25 [48.1%]	27 [51.9%]	1.080 (0.5000,2.33)	0.222
	Daily laborer	18 [52.9%]	16 [47.1%]	1.313 (0.552,3.122)	0.716
	Truck driver	35 [55.6%]	28 [44.4%]	1.458 (0.697,3.050)	0.952
9.	**Had STI in the past 12 month**				
	No	42 [36.8%]	72 [63.2%]		
	Yes	176 [63.8%]	100 [36.2%]	3.017 (1.918, 4.745)	< 0.001
10.	**Perceive susceptibility**				
	Low perceive susceptibility	25 [22.1%]	88 [77.9%]		
	High perceive susceptibility	193 [69.7%]	84 [30.3%]	8.088 (4.843,13.50)	< 0.001
11.	**Perceive severity**				
	Low perceive severity	32 [24.4%]	99 [75.6%]		
	High perceive severity	186 [71.8%]	73 [28.2%]	7.883 (4.869,12.76)	< 0.001
12.	**Perceive benefit**				
	Low perceive benefit	20 [21.5%]	73 [78.5%]		
	High perceive benefit	198 [66.7%]	99 [33.3%]	7.30 (4.21,12.657)	< 0.001
13.	**Perceive barrier**				
	Low perceive barrier	54 [58.7%]	38 [41.3%]		
	High perceive barrier	164 [55.0%]	134 [45.0%]	0.861 (0.536,1.383)	0.536
14.	**Cue to STI care service utilization**				
	Low cue to action	29 [24.8%]	88 [75.2%]		
	High cue to action	189 [69.2%]	84 [30.8%]	2.821 (1.464,5.439)	< 0.001
15.	**Knowledge of STI**				
	Poor knowledge	65 [32.0%]	138 [68.0%]		
	Good knowledge	153 [81.8%]	34 [18.2%]	9.554 (5.945,15.35)	< 0.001

Note: - For all the variables the first category was taken as a reference group.

In the bivariate logistic regression all potential explanatory variables namely educational status, marital status, any family to support, duration of sex work, having non- paying sexual partner, condom use with non-paying client, condom use with non-paying client, type of paying client in past two week, having history of STI symptom in the past 12 month and knowledge of STI, perceive susceptibility, perceive severity, perceive benefit, perceived barrier and cue to action were entered in the bivariate logistic regression discretely to detect the effect of individual explanatory variable on the likelihood of STI care service utilization. Among the variables examined in binary logistic regression ten variables such as educational status, duration of sex work, having non- paying sexual partner, type of paying client in past 2 week, having history of STI symptoms in the past 12 month and knowledge of STI, perceive susceptibility, perceive severity, perceive benefit and cue to action were the variables with p value less than 0.25 and become candidate variables for the final multivariate logistic regression analysis. The rest variables namely, marital status, any family to support, condom use with non-paying client, condom use with paying client and perceived barrier show no association with STIs care service utilization (P value $\geq$ 0.25).

5.8 Predictors of STIs care seeking behavior in multivariate logistic regression

In the final backward conditional multivariate logistic regression analysis all the variables with P- value <0.25 in bivariate logistic regression namely educational status, duration of sex work, having non- paying sexual partner, type of paying client in past 2 week, having history of STI symptoms in the past 12 month and knowledge of STI, perceive susceptibility, perceive severity, perceive benefit and cue to action were entered. Thus, the final model demonstrates that Perceive susceptibility (P-value = 0.022), perceive severity (P-value = 0.001), cue to action (P-value = 0.002), knowledge (P-value < 0.001), having STI symptoms (P-value < 0.001), having non-paying sexual partner (P-value = 0.023) and duration of sex work (P-value = 0.013) as the most significant factors that were significantly associated with STI care seeking behavior among female sex workers. Variables such as educational status, type of paying client in past 2 week, perceived barrier and perceive benefit failed to show significant association with STI care seeking behavior among female sex workers.

Female sex workers with high score of perceived susceptibility for STI were 2.3 times more likely had STI care seeking behavior than those with low score of perceived susceptibility [AOR 2.330 95% CI (1.130, 4.802)], female sex workers with high score of perceived severity for STI were 3.25 times more likely had STI care seeking behavior than those with low score of perceived severity [AOR 3.257 95% CI (1.655,6.411)], female sex workers with high score of cue to action 2.8 times more had STI care seeking behavior than those with low score of cue to action [AOR 2.821, 95% CI 2.821 (1.464,5.439)]. Regarding the modifying variables, female sex workers with high score of knowledge were 5.36 times more likely had STI care seeking behavior than those with low score of knowledge [AOR 5.364, 95% CI (3.080, 9.340)], female sex workers who had history of STI symptoms were 3.9 times more likely had STI care seeking behavior than those without symptoms [AOR 3.953, 95% CI (2.180,7.167)], female sex workers who had non-paying sexual partners were 1.9 times more likely had STI care seeking behavior than those without non-paying sexual partner [AOR 1.956 95% CI (1.097, 3.485)] and female sex workers staying in the business for more than 3 years were 0.5 times less likely had STI care seeking behavior than those working 1-3 years [AOR 0.500, 95% CI (0.290, 0.862)].

The final multivariate logistic regression model that depict variables which significantly predict STI care seeking behavior among female sex workers are summarized by table 6 below.

Table 6:- Multivariate logistic regression of socio-demographic and theoretical variable of the study subject with dependent variable, Adama town Oromia regional state, Ethiopia, March, 2017 (N= 390).

No	Variables	Utilized n [%]	Not Utilized n [%]	COR at 95% CI	AOR at 95% CI
1.	**Perceive susceptibility**				
	Low Perceive susceptibility	25 [22.1%]	88 [77.9%]		
	High Perceive susceptibility	193 [69.7%]	84 [30.3%]	8.088 (4.843,13.50)	2.330 (1.130,4.802*
2.	**Perceive severity**				
	Low Perceive severity	32 [24.4%]	99 [75.6%]		
	High Perceive severity	186 [71.8%]	73 [28.2%]	7.883 (4.869,12.76)	3.257 (1.655,6.411*
3.	**Cue to action**				
	Low cue to action	29 [24.8%]	88 [75.2%]		
	High cue to action	189 [69.2%]	84 [30.8%]	2.921 (1.464,5.439)	2.801 (1.464,5.439)**
4.	**Knowledge of STI**				
	Poor Knowledge	65 [32.0%]	138 [68.0%]		
	Good Knowledge	153 [81.8%]	34 [18.2%]	9.554 (5.945,15.35)	5.364 (3.080,9.340)**
5.	**Had STI symptoms**				
	Had no STI symptom	42 [36.8%]	72 [63.2%]		
	Had STI symptom	176 [63.8%]	100 [36.2%]	4.017 (1.918,4.745)	3.953 (2.180,7.167)**
6.	**Non-paying sexual partner**				
	No	56 [46.3%]	65 [53.7%]		
	Yes	162[60.2%]	107 [39.8%]	2.157 (1.140,2.709)	1.956 (1.097,3.485)*
7.	**Duration of sex work**				
	1-3 Years	138 [61.1%]	88 [38.9%]		
	3> Years	80 [48.8%]	84 [51.2%]	0.607 (0.404,0.912)	0.500 (0.290,0.862)*

P* means P value <0.05 and P** means P value <0.01

Note: -

- The table shows only significant variables after controlling for educational status, type of paying client in the past 2 week, perceived benefit and perceived barrier.
- For all the variables the first category was taken as a reference group.
- A goodness of fit test was performed using the Hosmer-Lemeshow test, which showed that the model selection method were successful with p value of 0 .240.

CHAPTER 6: DISCUSSION

It appears from the study that 55.9% of female sex workers stated that they personally subject themselves to health institution for STI concern (for treatment, consultation, for receiving condom etc). This proportion is similar with the study undertaken in Davangere city, Central Karnataka 51.2% (30) and Nairobi, Kenya 49.3% (50) and lower than study undertaken in Ogun State, Nigeria in which majority of the female sex workers 80.9% had used STI care service (32). This may be due to the non-existence of female sex worker friendly service in public facilities in the study area. Among female sex workers with previous STI symptoms 48.6 % of the study subjects did not seek care for their genital symptoms. This is consistent with study undertaken in Kano, Nigeria 46% and India 48.3% (31,51) suggesting that majority of them with STI symptoms did not seek care for their genital symptoms. However, among those that sought care, 68.9% did so at greater than one month after self-recognizing the symptoms. Delay in seeking STI care service among female sex workers were also evidenced by other studies conducted in Uganda 73.6% and Angola 66.7% (18,19). This delay in utilizing STI care service may be due to the perceived stigmatization and discrimination by the female sex workers in those countries. Lack of or a delay in utilizing STI care service result in missed opportunities to manage STI, as STI care providers can directly deliver interventions such as treatment, counseling and condoms directly to those who have STIs.

The most frequently mentioned barrier in utilizing STI care service were negative staff attitude, lack of privacy, long waiting time and high cost of treatment. Similar hurdles were identified as barriers to care seeking behavior among female sex workers in other studies carried out in Kigali, Rwanda and Loas (25,28). In this study majority of the female sex workers with STI symptoms sought STI care service predominantly from the private sector and NGO clinics, seldom from the public sector. These finding is consistent with other studies conducted regarding care seeking for STI symptoms among sex workers in Pakistani (27) and Parades, India (52). This similarity may be due to the fact that public health facility found in those countries my not provide favorable institutional environment that can suit MARPs specifically female sex workers.

Regarding condom utilization more than 59.7% had used a condom consistently with paying clients during the past 12 month prior to the study. This finding is congruent with the study conducted in Adama on work-related violence and inconsistent condom use (39) and Bangladesh

(53). In this study majority of the Female sex workers (69%) had non-paying sexual partners among them only 57.5% used condom consistently, when having sex with their non-paying sexual partners during the past 12 month prior to the study. This implies female sex workers use condom in the same pattern when having sex with their paying and non-paying client. Disparity in condom usage pattern between paying and non-paying client has been evidenced by other studies conducted in Blantyre, Bahirdar and Adama (38–40). The more likely explanation for this discrepancy in finding might be attributable to the roll of NGO run confidential clinic found in Adama town. This may possibly have significant impact on the attitude of female sex workers towards condom utilization with both paying and non-paying client.

Genital symptoms (genital discharge 30.8%, burning pain during urination 20% genital ulcers/sore 18.5% and swelling in groin area 15.4%) were common among the female sex workers. This finding is comparable with other study undertaken in Rwanda and Pakistan (27,28), suggesting high prevalence of STI among female sex workers and consequently this signify a high potential for STI and HIV transmission among this group.

Concerning HBM perceptions, the study revealed that majority of the female sex workers had high score of perceived susceptibility for STI (71%), perceived severity for STI (66.4%), perceived benefit of STI care service utilization (72.6%), perceived barrier for STI care service utilization (76.4%) and cue to STI care service utilization (70%). Other study that applied HBM in explaining HIV screening behavior among female sex workers, reveals the similar finding in which majority of female sex workers perceived high for all of the HBM constructs (44,52).

The present study found that female sex workers who had STI care seeking behavior had significantly higher average scores on perceive susceptibility and perceive severity compared to female sex workers who had not had STIs care seeking behavior. This finding is in line with the theory of HBM which postulates that people will engage in health seeking behavior if they have perceived susceptibility and perceive severity to the disease(42). STIs care seeking behavior where also predicted by cue to STIs care service utilization. Female sex workers having care seeking behavior where motivated by friends, mass – media and relatives. This is line with the theory suggesting in addition to the four perceptions, events, things, people (cue to action) influence the likelihood of complying with the recommended health behavior(42).

This study considered a range of potential predictors including socio-demographic, sexual behaviors, knowledge, perceived susceptibly, perceived severity, perceived benefit, perceived barrier and cue to STI care service utilization. Seven variables (perceived susceptibility, perceived severity, cue to action, knowledge, having symptoms, having non-paying sexual partner and staying in the business for more than 3 years were strong predictors of STI care seeking behavior. In this study having good knowledge of STI were positively associated with STI care seeking behavior among female sex workers (P value <0.001) similar study conducted in among female sex workers in Peru and Senegal substantiated this finding (35,56).

The likelihood of STI care service utilization were positively associated with having history of one or more of the STIs symptoms (P value <0.001). Other studies conducted in Ohio, America, Bangladesh, India sustained this finding (24,39,54). Which means asymptomatic female sex worker tends to visit health institutions less often than those who had already noticed the symptoms. This might implies that female sex workers usually contemplate themselves as healthier as long as they don't recognize the symptoms. The finding of this study indicated that female sex workers staying in the business for more than 3 years were less likely to utilize STI care service than those with 1-3 year experience. This result is in agreement with the study conducted in loas (25). This may be for the fact that staying in the business for a long period makes them dispirited and feel less responsiveness for their health concern.

Generally, the majority of respondent in this study perceived a high level of perception for all HBM constructs. Perceive susceptibility perceive severity and cue to action were the constructs that significantly associated with STI care seeking behavior. Female sex workers with high score of perceived susceptibility, perceived severity and cue to action were more likely had STI care seeking behavior than those with low score. This study is unique because it uses HBM to depict a STI care seeking behavior. As per the investigators knowledge currently there is very limited literature concerning how the components of the Health Belief Model predict STI care seeking behavior and whether the HBM is appropriate for elucidating STI care seeking behavior among female sex workers. Due to this limitation in literature the study fails to compare and contrast the finding of HBM theoretical dimensions.

6.1 Strength and Limitations of the study

- Strength of the study

1. The strength of this study was that it tried to assess areas which had insufficient attention by previous researchers.

2. The other strength of this study was the use behavioral model (HBM).

- Limitation of the study

1. There could be possibility of recall biases.

2. The other weakness of this study was the fact that it didn't incorporate those female sex workers working out of licensed drinking establishments.

CHAPTER 7: CONCLUSION AND RECOMMENDATION

7.1 Conclusion

Sixty percent of the female sex workers visit health institution for STI apprehension most of them were predisposed by self-recognized STI symptoms. Among those with history of STIs symptoms majority sought care from NGO clinics and private health facilities. There were several barriers mentioned by those female sex workers who hadn't sought treatment for their genital symptoms. The barriers were related to both structural and individual factors comprising long waiting time in the clinic, high cost of treatment, judgmental attitudes of healthcare providers and lack of privacy.

The behavioral schematic design (HBM) was employed in this study. The results found that 3 of the Health Belief Model perceptions perceived susceptibility, perceived severity and cue to action were significantly associated with STI care seeking behavior. High perceived susceptibility, High perceived severity and High cue to action were positively associated with STI care seeking behavior. Other variables like having symptoms of STIs, good knowledge of STI, having non-paying sexual partners were positively associated with STI care seeking behavior. Duration of sex work greater than 3 years was negatively associated with STIs care seeking behavior.

7.2 Recommendations

To Adama town health office

- To enhance STI care seeking behavior among female sex workers, health facilities found in the town should provide an environment that respects their privacy, dignity and lower waiting time.

To FMOH

- Need to strengthen interventions for improving the role of public facilities in providing female sex workers friendly and comprehensive STI care service which is tailored to sexual health needs of female sex workers.

- Need to develop educational intervention strategies that may be effective in focusing constructs of the HBM model such as fostering the level of perceived susceptibility and perceived severity to STI among female sex workers.

To policy makers

- Based upon the final results of this study, it is apparent that there needs to be policy recommendations which inspire female sex workers to actively engage in STI care seeking behaviors.

Future research

In summary, even though the finding of this study provide overall clue of factors that may be associated with STI care seeking behavior, there is only a one background variable that were significantly associated with outcome of interest. Further study on how socio-demographic, behavioral, clinical, and cognitive factors influence STI care seeking need to be considered.

Furthermore future researchers have better to address all form of sex workers working in diverse areas like (non-licensed drinking establishments, massage parlors, streets, etc) which are not incorporated in this study.

REFERENCE

1. Pankhurst R. The History of Prostitution in Ethiopia. 2017;12(2):159–78.
2. Article 634: The Criminal Code of the Federal Democratic Republic of Ethiopia (Proclamation No. 414/2004) 2004. 1994;
3. International FH. Mapping and census of female sex workers in Family Health International (FHI) – Ethiopia Addis Ababa City Administration Health Bureau (AACAHB). 2002;(August).
4. Overs C. Sex Workers, Empowerment and Poverty Alleviation in Ethiopia. (80). Available from: httpsopendocs.ids.ac.ukopendocsbitstreamhandle1234567894095ER80 Sex Workers, Empowerment and Poverty Alleviation in Ethiopia.pdfsequence=3
5. Rojanapithayakorn W. The 100% Condom Use Programme in Asia. 2006;14(28):41–52.
6. Ngugi EN, Roth E, Mastin T, Nderitu MG, Yasmin S, Roth E, et al. Female sex workers in Africa : Epidemiology overview , data gaps , ways forward. BMC Public Health. 2017;376(January).
7. Bank THEW. The Global HIV / AIDS Program THE WORLD BANK HIV / AIDS in Ethiopia An Epidemiological Synthesis. 2008.
8. CDc. Sexually Transmitted Infections In Developing Countries. 2013.
9. Report on global sexually transmitted infection surveillance 2013. 2009. 56-67 p.
10. Fast forwarding health access for female sex workers :Findings from 1 Indian and 3 African sites.
11. National guidelines for the management of sexually transmitted infections using syndromic approach. 2015;(July).
12. Care P. Sexual risk behaviors , HIV , and syphilis among female sex workers in Nepal. 2017;9–18.
13. Musyoki H, Kellogg TA, Geibel S, Muraguri N, Sheehy M, Kim AA. Prevalence of HIV , Sexually Transmitted Infections , and Risk Behaviours Among Female Sex Workers in Nairobi , Kenya : Results of a Respondent Driven Sampling Study. 2015;46–58.
14. Abdelrahim MS. HIV prevalence and risk behaviors of female sex workers in Khartoum , north Sudan. 2010;
15. Towns FA, Negele A. Oromiya region first baseline assessment for mobile HIVcounseling and testing program first assessment towns : Dukem , Bishoftu ,. 2007.
16. Alt H, Alt N, Alt C, Health H, Media D, Countries P, et al. Bulletin of the World Health Organization Control of sexually transmitted infections and prevention of HIV transmission : mending a fractured paradigm [Internet]. [cited 2017 Dec 1]. Available

from: https://www.ncbi.nlm.nih.gov/books/NBK11782/

17. Adu-oppong A, Grimes RM, Ross MW, Risser J, Kessie G. Social and behavioral determinants of consistent condom use among female commercial sex workers in Ghana. BMC Public Health. 2007;19(2):160–72.

18. Vera A. STI care service utlization by female sex workers Uganda. 2014;28(3):496–512.

19. Jeal N, Salisbury C, Turner K. The multiplicity and interdependency of factors influencing the health of female sex workers : Angola. BMC Public Health. 2008;(July).

20. Diniz SG, Maia MB, Galati AF ML and reproductive health needs of, sex workers: two feminist projects in Brazil. Reprod Health Matters 2007 15(29):108-118. sexual and reproductive health needs of sex workers: two feminist projects in Brazil. Reprod.

21. Jeal N SC. Self-reported experiences of health services among female street-based prostitutes: a cross-sectional survey. Br J Gen Pract 2004, 54(504):515-519.

22. Esler D, Ooi C MT. Sexual health care for sex workers. Australian family physician. 2008;

23. Dixon-Woods M, Stokes T, Young B, Phelps K, Windridge K SR. Choosing and using services for sexual health: a qualitative study of women's views. Sex Transm Infect 2001, 77.

24. Ward H DS. What happens to women who sell sex? Report of a unique occupational cohort. Sex Transm Infect 2006. 2006;1–8.

25. Usgas H, Female sex workers in Savannakhet , Laos : Perceptions, care seeking behaviour and barriers related to sexually transmitted infection services Ketkesone. BMC Public Health. 2012;

26. Zhang X, Temmerman M, Li Y, Luo W, Luchters S. Vulnerabilities , health needs and predictors of high-risk sexual behaviour among female adolescent sex workers in Kunming , China. 2012;

27. Khan AA, Qayyum K, Khan A. Care seeking for STI symptoms in Pakistan. BMC Public Health. 2001;2001–3.

28. Veldhuijzen NJ, Steijn M Van, Nyinawabega J, Vyankandondera J, Kestelyn E, Uwineza M. Prevalence of sexually transmitted infections , genital symptoms and health-care seeking behaviour among HIV-negative female sex workers in Kigali , Rwanda. Google Sch. 2013;139–43.

29. Shokoohi M, Karamouzian M, Khajekazemi R, Osooli M. Correlates of HIV Testing among Female Sex Workers in Iran : Findings of a National Bio- Behavioural Surveillance Survey. Google Sch. 2016;1–12.

30. Girish HO, Kumar A, Balu PS. A study on sti morbidity pattern and STI treatment seeking behavior among female sex workers of Davangere city, central Karnataka. Int J Life Sci

Biotechnol Pharma Res [Internet]. 2014;3(1):255–60. Available from: http://ijlbpr.com/jlbpradmin/upload/ijlbpr_52cd8334b0e53.pdf

31. Lawan UM, Abubakar S, Ahmed A. Risk perceptions, prevention and treatment seeking for sexually transmitted infections and HIV/AIDS among female sex workers in Kano, Nigeria. Afr J Reprod Health [Internet]. 2012;16(1):61–7. Available from: http://www.ncbi.nlm.nih.gov/pubmed/22783669

32. Afet R. Health-Seeking Behaviour of Brothel-Based Female Sex Workers in the Management of Sexually Transmitted Infections in Urban Communities of Ogun. BMC Public Health. 2016;1–6.

33. Sekoni AO, Odukoya OO, Onajole AT, Odeyemi KA. Sexually transmitted infections : Prevalence , knowledge and treatment practices among female sex workers in a cosmopolitan city in Nigeria. BMC Public Health. 2013;17(March):94–102.

34. Phrasisombath K, Thomsen S, Sychareun V, Faxelid E. Care seeking behaviour and barriers to accessing services for sexually transmitted infections among female sex workers in Laos : a cross-sectional study. Google Sch. 2012;

35. Hughes JP, Mejia C, Garnett GP, King K. HHS Public Access. 2016;27(5):402–10.

36. Two R. HIV / AIDS Behavioral Surveillance Survey (BSS) Ethiopia 2005 Round Two HIV / AIDS Behavioral Surveillance Survey (BSS) Ethiopia 2005 Round Two. 2005.

37. Masresha Molla Tamene1, Gizachew Assefa Tessema2 GKB. Condom utilization and sexual behavior of female sex workers in Northwest Ethiopia: A cross-sectional study. 2015;8688:1–10.

38. Admassu BA. Magnitude of and factors associated with male condom use and failure rate among commercial sex workers of bahir dar town licensed non–brothel establishments, ethiopia. 2004;

39. Mooney A, Kidanu A, Bradley HM, Kumoji EK, Kennedy CE, Kerrigan D. Work-related violence and inconsistent condom use with non-paying partners among female sex workers in Adama City , Ethiopia. BMC Public Health [Internet]. 2013;13(1):1. Available from: BMC Public Health

40. Twizelimana D, Muula AS. HIV and AIDS risk perception among sex workers in semi-urban Blantyre ,. BMC Public Health. 2015;17(3):1–7.

41. By P. World â€™ s largest Science , Technology & Medicine Open Access book publisher Predictors of STI Screening : An Application of Health Belief Model.

42. L.W., Hunt, S.B., DiBrezzo, R., & Jones C (2004). D. Design and implementation of health belief model. 2003;

43. Tyus NC, BS. Predictors of chlamydia and gonorrhea screening behaviors among high-risk young women. 2006; Available from: papers2://publication/uuid/03E27334-1A23-45DB-9A2B-2A275CD554D5

44. Marketing S, Life B. Report on Sex Workers Population Size Estimation in Seventeen Towns of Ethiopia.

45. Magnani R, Sabin K, Saidel T, Heckathorn D. Review of sampling hard-to-reach and hidden populations for HIV surveillance [Internet]. 2005 [cited 2017 Dec 1]. p. 67–72. Available from: http://www.who.int/hiv/pub/surveillance/en/cds_edc_2000_5.pdf

46. Workagegn F, Kiros G, Abebe L. Predictors of HIV-test utilization in PMTCT among antenatal care attendees in government health centers: Institution-based cross-sectional study using health belief model in Addis Ababa, Ethiopia, 2013. HIV/AIDS - Res Palliat Care. 2015;7:215–22.

47. Zone D, Negash T. Factors Affecting Utilization of Reproductive Health Services by Adolescent Females Using the Health Belief Model in Maraka. 2016;21.

48. Kalkidan T sexualy transmitted infection and associated factors owards P, Transmitted S,. 2016;

49. Tavakol M, Dennick R. Making sense of Cronbach ' s alpha. 2011;53–5.

50. Fonck K. Sexually transmitted infections in Nairobi , Kenya : doctoral thesis submitted to the faculty of medicine and health sciences promotor : prof dr marleen temmerman. 2008;

51. K KJ, K DV, Singh TH. STI care seeking behavior among female commercial sex workers , India. BMC Public Health. 2005;26(1):26–32.

52. Saggurti N, Mishra RM, Proddutoor L, Kovvali D, Parimi P, Wheeler T. Barrier in utlizing sexualy transmitted care service among commercial sex workers in Pradesh , India. AIDS Care [Internet]. 2013;25(Supplement 1):55–66. Available from: http://dx.doi.org/10.1080/09540121.2012.749334

53. Manle B, Messages KEY, Methodology S. sexual and reproductive health among young female sex workers in bangladesh brothels — baseline findings from link up. 2014;(July).

54. Trieu SL, Modeste NN, Marshak HH, Males MA, Bratton SI. Factors Associated with the Decision to Obtain an HIV Test among Chinese / Chinese American Community College Women in Northern California. 2008;6(1):111–27.

55. For R, Degree THE, Maser OF, Public OF. Predictors of Condom Use By Using a Thesis Submitted To the School of Graduate Studies Requirements for the Degree of Maser of Public Health in the Faculty of Medicine Department of. 2005;

56. Ward H DS. Predictors of STIs utilization in among female sex workers in Senegal: 2013.

57. Travasso SM, Mahapatra B, Saggurti N, Krishnan S. Non-paying partnerships and its association with HIV risk behavior, program exposure and service utilization among female sex workers in India. BMC Public Health [Internet]. 2014

ANNEXES

Annex I: English version consent form and Structured Questionnaire

Jimma University, institute of Health Science, faculty of Public Health department of Population and Family Health

CONSENT AND INFORMATION SHEET

Hello, I am…… I am here to enroll and interview eligible study participants, and fill in questionnaire forms. I am glad to inform you that you are one of the eligible study participants, and you are chosen to take part in this study. I am also delighted to tell you that I am really value your participation, as your individual contribution to the study output is very significant. Although some of the questions are sensitive and private, honest and genuine response will highly be appreciated and credited, as it will help to make realistic analysis and to propose very practical suggestions. However, it is up to you to decide whether to participate in this study or not. I will definitely admire and respect what so ever your decision will be. I would also like to inform you that your name and the name of the establishment you work at will not be written anywhere in this paper. All information you are giving will not be divulged to anyone.

Would you like to participate in this research? 1. Yes……. 2.1 No….. 2.2 Reason …….

[The interviewer's signature in either of the given spaces certifies the verbal informed consent of the respondent]

Date of interview ---------

Respondent identification number---------

Interviewer Code No --------

Time of start of interview--------

Time of end of interview---------

Part I: - Respondent's Socio demographic Characteristics.			
No	Questions	Coding categories	Skip to
101	What age are you now (age in complete years)?	• Age in complete years (_) • Don't know 88 • No response 99	
102	What is your educational status by now?	• Unable to read and write 0 • Read and write 1 • Grade 1-4 2 • Grade 5-8 3 • Grade 10-12 4 • Above grade 12 5	
103	What is your marital status?	• Never married 0 • Divorced 1 • Widowed 2 • Married but run away 3 • Married but separated 4 • No response 99	
104	What religion do you follow?	• Orthodox Christian 1 • Muslim 2 • Protestant Christian 3 • Others, specify -------- ? • No response 99	
105	Are you supporting anyone (children, parents or others) now?	• Yes 1 • No 0 • No response 9	
106	How many people are you supporting now?	• Number of people ( ) • Don't know 88 • No response 99	

Part II: - Respondent's Knowledge about STI			
No	Questions	Coding categories	Skip to
201	Have you ever heard of diseases that can be transmitted through sexual intercourse?	• Yes 1 • No 0 • No response 99	If Yes next Q
202	Knows that STIs can be prevented?	• Yes 1 • No 0 • No response 99	
203	Knows that STIs can be cured?	• Yes 1 • No 0 • No response 99	
204	Knows that STIs can be asymptomatic?	• Yes 1 • No 0 • No response 99	
205	Can people protect themselves from STI by using a condom correctly?	• Yes 1 • No 0 • No response 99	
206	Do you know having one of STIs other than HIV can increase risk of acquisition of HIV?	• Yes 1 • No 0 • No response 99	
207	Can you describe any symptoms of STIs in women? ..... Any others?	Yes No • Abdominal pain 1 0 • Genital Discharge 1 0 • Foul Smelling 1 0	

	(more than one response is possible)	Discharge • Pain On Urination 1 0 • Genital Ulcers /Sores 1 0 • Swellings In Groin Area 1 0 • Itching 1 0 • Other_____ • No Response 99	
208	Can you describe any symptoms of STIs in men? ..... Any others? DO NOT READ OUT THE SYMPTOMS (more than one response is possible)	Yes No • Genital Discharge 1 0 • Burning Pain Urination 1 0 • Genital Ulcers /Sores 1 0 • Swellings In Groin Area 1 0 • Other _____ • No Response 99	
Part III: - Respondent's STI care service utilization.			
No	Questions	Coding categories	Skip to
301	Have you visit health institution for STI concern in the past 12 month?	• Yes 1 • No 0 • No response 99	If yes Next Q
302	What was the reason for visiting health care?	Yes No • For STI treatment 1 0 • For STI screening	

	(more than one response is possible)	Purpose 1 0 • For checkup 1 0 • To get information regarding STI 1 0 • For receiving condom 1 0 • For treatment of my regular partners 1 0 • Other_____ • No response 99	
303	Have you had any of the following symptoms during the past 12 months?	Yes No • Genital Discharge 1 0 • Burning Pain Urination 1 0 • Genital Ulcers /Sores 1 0 • Swellings In Groin Area 1 0 • Other _____ • No Response 99	IF Yes Next Q
304	Have you sought treatment for your genital symptoms?	• Yes 0 • No 1 • No response 99	If No Next Q
305	From where have you sought treatment for you genital symptoms.	Yes No • Government clinic or hospital 1 0 • Public clinic 1 0 • or hospital	

		• NGO clinics 1 0 • Pharmacy 1 0 • Traditional healer 1 0 • Other_____ • No Response 99	
306	How long after first experiencing symptoms did you seek advice from a health worker in a clinic more than 1 week or hospital?	Yes No • 1 week or less 1 0 • More than one week 1 0 • Less than 1 month 1 0 • More than 1 month 1 0 • Don't know 88 • No response 99	
307	Why you haven't sought treatment for your symptoms.	Yes No • High cost of treatment 1 0 • lack of privacy 1 0 • Negative staff • Attitudes. 1 0 • Long waiting time 1 0 • Other_____ • No Response 99	
Part IV: - Respondent's sexual behaviors.			
N0	Questions	Coding categories	Skip to
401	Have you ever practiced sex?	• Yes 1 • No 0	If Yes Next Q

		• No response 99	
402	How old were you when you had started sex first (in complete years)?	• Less than 10 years 0 • 10 - 15 years 1 • 16 – 18 years 2 • Above 18 years 4 • Don't know 88 • No response 99	
403	For how long did you practice sex work?	• 1-3years 0 • 3> years 1 • Don't know 88 • No response 99	
404	Now, do you have a non-paying sexual partner?	• Yes 0 • No 1 • No response 99	If yes next Q
405	Please tell me the current number of your non-paying sexual partners	• Only one 1 • More than one 2 • No response 99	
406	With your non-paying client, did you use condoms during your last 12 month?	• Yes 0 • No 1 • No response 99	
407	With your paying client, did you use condoms during your last 12 month?	• Yes 0 • No 1 • No response 99	
408	Type of paying clients during the last 2 weeks	Yes No • Farmers 1 0 • Employees 1 0	

	(more than one response is possible)	• Merchants 1 0 • Students 1 0 • Soldiers 1 0 • Daily laborer 1 0 • Others, specify 1 0 • Don't know 88 • No response 99	

Part IV: - The following question asks you about your perception of STI care service. Please read the question carefully and Make a tick (√) in the box that best describe your opinion.						
Perceived susceptibility						
No	Question	Very likely	Likely	Neutral	Somewhat unlikely	Not likely at all
501	I am afraid that I might contract STI					
502	If I don't use condom consistently and correctly I may have STI.					
503	I can generally tell if my sexual partners have an STI.					
504.	I am more likely than the average woman to get STI.					
505.	My chance of getting STI is great.					
Perceived severity						
506.	STI is a killer if not detected early					
507.	If I got STI, it would threaten my relationship with my partners.					

508.	Problems I would experience with STI would last a long time.					
509.	If I got STI infection, it would be more serious than other diseases.					
510.	If I got STI, my financial security would be endangered					
	Perceived Benefit					
511.	When I visit health institution for STIs concern I feel good about myself.					
512.	If I undergo STI test/treatment, I will decrease my chance of dying from STI.					
513.	Early STI test instead of waiting is more likely to prevent future problems.					
514.	If I go clinic for STI test I will not worry as much about the disease.					
515.	It is important for me to get the service so I won't infect my clients.					
	Perceived barrier					
516.	Going clinic for STI concern will take too much time.					
517.	Going clinic for STI concern is embarrassing					
518.	I don't like to have someone					

	examine my vagina, genitals, or private parts.					
519.	I worry that someone I know will see me while I am getting the service.					
520.	Getting STI service will cost me more money.					
	Cue to action					
521.	I have heard a message about STI care service from mass - media.					
522.	I have known fiends who had STI made me go for having the service.					
523.	I have known a relative who had STI made me get the service.					

<u>በ ግብረስጋ ግንኙነት የሚተላለፉ በሽታዎችን (ኤች አይ ቪን ሳይጨምር) በተመለከተ ስለሚሰጡ የህክምና አገልግሎትን አጠቃቀም በተመለከተ ለሴተኛ አዳሪዎች የተዘጋጀ መጠይቅ</u> ::

<u>መግቢያ</u>

ጤና ይስጥልኝ ---------- እባላለሁ:: እኔ በጅማ ዩኒቨርሲቲ ጤና ሳይንስ ኢኒስቲቲውት የሕብረተሰብ ጤና ፋኩልቲ የሁለተኛ ዲግሪ ተማሪ ነኝ:: የዚህ ጥናት አላማ በ ግብረስጋ ግኑንነት የሚተላለፉ በሽታዎችን (ኤች አይ ቪን ሳይጨምር) በተመለከተ ስለሚሰጡ የህክምና አገልግሎትን አጠቃቀም በተመለከተ ጠቃሚ መረጃን ከ ሴተኛ አዳሪዎች ሰብስቦ ለወደፊት አግባብ ያለው ትግበራ ለመንደፍ እንድረዳ ሲሆን እርሶም የተመረጡት በአጋጣሚ ነው::

መጠይቁ የተለያዩ ሚስጥራዊና የግል ህይወትዎን የተመለከቱ ጥያቄዎችን ያካተተ ነው:: የጥናቱን አላማ ለማሳካት እርስዎ ለጥያቄዎቹ የሚሰጡት ትክክለኛና ቀና መልስ ወሳኝ ሚና አለው::በመጠይቁ ላይ ስምም ሆነ ሌሎች የእርስዎን ማንነት የሚገልፅ ነገር አይፃፍም:: የግል ምላሽ ሪፖርት የማይደረግ መሆኑን ከወዲሁ እንገልጻለን:: መጠይቁን የሚሞሉት እርሶ ፍቃደኛ ከሆኑ ብቻ ነው:: መጠይቁን ለመሙላት ፍቃደኛ ከሆኑ በኋላም ቢሆን መመለስ ያልፈለጉትን ጥያቄ አለመመለስ መብቶ ነው::ነገር ግን ሁሉም ጥያቄዎች ካልተሞሉ የጥናቱን አላማ ሙሉ በሙሉ ለማሳካት አስቸጋሪ ስለሚሆን መጠይቁን በሙሉ እንዲሞሉ በማክበር እንጠይቃለን :: ጥናቱ ላይ ላለመሳተፍ በመወሰንዎ ወይም በማቋረጥዎ ምንም የሚደርስቦት ጉዳት የለም::

በጥናቱ ለመሳተፍ ፍቃደኛ ኖት?

1. (----------)አዎ 2. (----------) አይደለሁም

(ከተተወው ክፍት ቦታዎች በአንዱ ላይ የሚያርፈው የጠያቂው ፊርማ የተጠያቂውን በጠናቱላይ የመሳተፍ ወይም ያለመሳተፍ ውሳኔ ያሳያል)

አመሰግናለሁ ::

የተሳታፊው መለያ ቁጥር ----------

የጠያቂው መለያ ቁጥር ----------

መጠይቁ 20 ደቂቃ ይፈጃል::

የመረጃ መሰብሰቢያ ወረቀት

ክፍል ፣ ፡- የተሳታፊውን ማንነት ዝርዝር መረጃዎቸን ለማወቅ የተዘጋጁ ጥያቄዎቸ			
ተ.ቁ	ጥየቄ	መለስ	የሽግግር ንድፍ
101	እድሜሽ ስንት ነዉ?	• (____) • አላውቅም 88	
102	የትምረትሽ ደረጃ ምን ያህል ነው?	• መጻፍ ማንበብ አልችህልም 0 • መጻፍ ማንበብ እችላለሁ 1 • ከ 1-4 2 • ከ 5-8 3 • ከ 10-12 4 • ከ 12 በላይ 5	
103	የጋብቻ ሁኔታ?	• አላገባሁም 0 • ተፋትቻለሁ 1 • ባለቤቴሞቶብኛል 2 • አግብቻለሁ ግን ተለያይተናል 3 • አግብቻለሁ 4	
104	ሐይማኖትሽ ምንድነው?	• ኦርቶዶክስ 1 • ሙስሊም 2 • ፕሮቴስታነት 3 • ካቶሊክ 4 • ሌላ (ይገለጸ) _____	
105	የምትረጂው ሰው አለ (ልጆች፣ ቤተሰብ ወይም ሌሎች) በአሁኑ ጊዜ?	• አሉኝ 1 • የሉኝም 0	1 ከሆነ ወደ ጥ. ነ06 ይሸጋገሩ
106	ምን ያህል ሰው ትረጂያለሽ?	• (___)	
107	በሴተኛ አዳሪነት ምንያህል ጊዜ ሰርተሻል?	• 1-3 ኣመት 1 • 3> ኣመት 2 • አላስታውስም 88	
ክፍል2 : - በግብረስጋ ግንኙት ወቅት የሚተላለፉ በሽታዎች (ኤች ኣይ ቪ ን ሳይጨምር) ተሳታፊዎች ያላቸው ግንዛቤ			
ተ.ቁ	ጥየቄ	መለስ	የሽግግር ንድፍ

201	በግብረስጋ ግንኙት ወቅት ስለሚተላለፉ በሽታዎች ሰምተው ያውቃሉ?	• አዎ 1 • አላውቅም 0	1 ከሆነ ወደ ጥ. 202 ይሸጋገሩ
202	በግብረ ስጋ ግንኙነት የሚመጡ በሽታዎችን መከላከል ይቻላል?	• አዎ 1 • አይቻልም 0 • አላውቅም 99	
203	በግብረ ስጋ ግንኙነት የሚመጡ በሽታዎችን በህክምና መዳን ይቻላል?	• አዎ 1 • አይቻልም 0 • አላውቅም 99	
204	አንድ ሰው በግብረ ስጋ ግንኙነት የሚተላለፉ በሽታዎች ምልክቶቹ ሳይታዩበት ሊኖርበት ይችላል?	• አዎ 1 • አይቻልም 0 • አላውቅም 99	
205	አንድ ሰው ኮንዶምን በትክክል እና በጥንቃቄ በመጠቀም እራሱን ከ ግብረ ስጋ ግንኙነት የሚተላለፉ በሽታዎች መከላከል ይችላል?	• አዎ 1 • አይቻልም 0 • አላውቅም 99	
206	የትኛዉም አይነት በግብረ ስጋ ግንኙነት የሚተላለፍ በሽታ ያለበት ሰው ለኤች አይ ቪ የመጋለጥ እድሉ ከፍተኛ ነው?	• አዎ 1 • አይደለም 0 • አላውቅም 99	
207	በሴቶች ላይ ይሚታዩ በግብረ ስጋ ግንኙነት የሚተላለፉ በሽታዎች ምልክቶች ምንድናቸው (ከአንድ በላይ መልስ መስጠት ይቻላል)	አዎ የለም • የሆድ ህመም 1 0 • ከብልት ወይም ከማህፀን የሚወጣ ፈሳሽ 1 0 • ከብልት የሚወጣ መጥፎጠረን ያለው ፈሳሽ 1 0 • ሽንት ሲሸና የህመምስሜት 1 0 • ብልት አካባቢ መቁሰል 1 0 • በሸሸት አከባቢ ማበጥ 1 0	

		• ብልት አካባቢ ማሳከክ 1 0 • ሌላ(ይጥቀሱ) (_____)	
208	በወንዶች ላይ ይሚታዩ በግብረ ስጋ ግንኙነት የሚተላለፉ በሽታዎች ምልክቶች ምንድናቸው (ከአንድ በላይ መልስ መስጠት ይቻላል)	አዎ የለም • ከብልት የሚወጣ ፈሳሽ 1 0 • ሽንት ሲሸና የህመም ስሜት 1 0 • ብልት አካባቢ መቁሰል 1 0 • በሸሸት አከባቢ ማበጥ 1 0 • ሌላ (ይጥቀሱ) (_____)	
ክፍል: - 3 በግብረ ስጋ ግንኙነት የሚተላለፉ በሽታዎችን በተመለከተ የህክምና አገልግሎትን መጠቀምን የተመለከቱ ጥያቄዎች			
ተ.ቁ	ጥየቄ	መለስ	የሽግግር ንድፍ
301	ባለፉት 12 ወራት ውስጥ በግብረ ስጋ ግንኙነት የሚተላለፉ በሽታዎችን በተመለከተ የህክምና አገልግሎት ተጠቅመሽ ታውቂያለሽ?	• አዎ 1 • አላውቅም 0	1 ከሆነ ወደ ጥ. 302 ይሽጋገሩ
302	ለምን መክንያት ነበር አገልግሎቱን የተጠቀሙት? (ከአንድ በላይ መልስ መስጠት ይቻላል)	አዎ የለም • ለመታከም 1 0 • ለቅድመ ምረመራ 1 0 • የምክር አገልግሎት ለማግኘት 1 0 • ኮንዶም ለመቀበል 1 0 • ሌላ (ይጥቀሱ) (___)	
303	ባለፉት 12 ወራት ውስጥ የሚከተሉተ ምልክቶች አጋጥሞሽ ያውቃሉ? (ከአንድ በላይ መልስ መስጠት ይቻላል)	አዎ የለም • ከብልት ወይም ከማህፀን የሚወጣ ፈሳሽ 1 0 • ሽንት ሲሸና የህመም ስሜት 1 0 • ብልት አካባቢ መቁሰል 1 0 • በሸሸት አከባቢ ማበጥ 1 0 • ሌላ (ይጥቀሱ) (_____)	ሁሉም 0 ከሆን ወደ ጥ. 401 ይሽጋገሩ

304	ህክምና ሄደሽ ነበር ለህመምሽ?	• አዎ 1 • አልሄድኩም 0	0 ከሆነ ወደ ጥ. 307 ይሸጋገሩ
305	ከየት ነበር ህክምና ያገኘሽው.	• የመንግስት ሆስፒታል ወይም ጤና ጣቢያ 1 • የግል ሆስፒታል ወይም ጤና ጣቢያ 2 • ኤንጂኦ ክሊኒክ 3 • ፋርማሲ 4 • የባህል ህክምና 5 • ሌላ (ይጥቀሱ) (____)	
306	የህመም ስሜት ከተሰማሽ በስንተናው ጊዜ ነው ወደ ህክምና የሄድሽው ?	• ከ 1 ሳምንት በታች 1 • ከ 1 ሳምንት በላይ 2 • ከ 1 ወር በታች 3 • ከ 1 ወር በላይ 4 • አላስታውስም 88	ወደ ጥ. 401 ይሸጋገሩ
307	ለህክምና ያልሄድሽበት ምክንያተ ምን ንበር?	• ከፍተኛ የህክምና ክፍያ 1 • ህመሜ እዲታወቅ ስላልፈለኩ 2 • የህክምና ባለሞያዎች ስለስራዬ ጥሩ አመለካከት ላይኖራቸው ይችላል 3 • ረጅም ሰኣት መጠበቅ ስለሚሰለቸኝ 4 • ሌላ (ይጥቀሱ) (____)	

ክፍል 4: - የተሳታፊዎችን የግብረስጋ ግንኙነት ባህርያት የተመለከተ መጠይቅ

ተ.ቁ	ጥየቄ	መለስ	የሽግግር ንድፍ
401	የግብረስጋ ግንኙነት አርገሽ ታውቂያለሽ?	• አዎ 1 • አላውቅም 0	1 ከሁነ ወደ ጥ. 402 ይሸጋገሩ

402	መጀመሪ የግብረስጋ ግንኙነት ስትጀምሪ እድሜሽ ስንት ነበረ ?	• ከ 10 አመት በታች 0 • 10 - 15 አመት 1 • 16 – 18 አመት 2 • ከ 18 በላይ 3 • አላስታውስም 88	
403	ገንዘብ የማይከፍል ወዳጅ አለሽ?	• አዎ 1 • የለኝም 0	1 ከሁነ ወደ ጥ. 404 ይሸጋገሩ
404	ምንያ ህል ገንዘብ የማይከፍሉ ወዳጆች አሉሽ?	• አንድ ብቻ 1 • ከ አንድ በላይ 0	
405	ባለፉት 12 ወራት ውስጥ ከ ገንዘብ የማይከፍሉ ወዳጆች ጋር ግንኙነት በምታረጊበት ወቅት ያለኮንዶም ግንኙነት አርገሽ ታውቂያለሽ?	• አዎ 1 • አላውቅም 0	
406	ባለፉት 12 ወራት ውስጥ ገንዘብ ከሚከፍሉሽ ደንበኞችሽ ጋር ግንኙነት በምታረጊበት ወቅት ያለኮንዶም ግንኙነት አርገሽ ታውቂያለሽ?	• አዎ 1 • አላውቅም 0	
407	ባለፉት 2 ሳምንታት ያጋጠሙሽ ደንበኞች ስራቸው ምን ይመስላል? (ከ አንድ በላይ መልስ መመለስ ይቻላል)	• ገበሬ 1 • ተቀጣሪ 2 • ነጋዴ 3 • ተማሪ 4 • ወታደር 5 • የቀን ሰራተኛ 6 • ሌላ (ይጥቀሱ) (____)	

ክፍል 5: - ከዚህ የሚከተሉት አረፍተ ነገሮች ስለበግብረ ስጋ ግንኙነት የሚተላለፉ በሽታዎች እና የህክምና አገልግሎትን ስለመጠቀም በተመለከተ ያሎትን አመለካከት ለመረዳት የሚጠቅም ሲሆን የተሰጡትን አረፍተ ነገሮች ካነበቡ በኋላ የርሶን አስተሳሰብ የሚወክለው ሳጥን ውስጥ የራይት (√) ምልክት ያድርጉ						
ስለበግብረ ስጋ ግንኙነት የሚተላለፉ በሽታዎች (ኤች አይ ቪን ሳይጨምር) ተጋላጭነት በተመለከተ						
ተ.ቁ	ጥየቄ	በጣም እስማማለሁ	እስማማለሁ	ገለልተኛ	አልስማማም	በጭራሽ አልስማማም
501	በሽታው ይይዘኛል ብዬ በጣም ፈራለሁ					
502	ኮንዶም በጥንቃቄ ካልተጠቀምኩ በሽታው ሊይዘኝ ይችላል.					
503	ደንበኛዬ በሽታው ካለበት በቀላሉ በማየት ብቻ ማወቅ ችላለሁ					
504.	ከ ሌሎች ሴቶች(ሴተኛ አዳሪ ካልሆኑ) በበለጠ በቀላሉ ለበሽታው ልጋለጥ እችላለሁ					
505.	በበሽታው የመያዜ እድል ከፍተኛ ነው.					
ስለ በግብረ ስጋ ግንኙነት የሚተላለፉ በሽታዎች (ኤች አይ ቪን ሳይጨምር) አስከፊነት በተመለከተ						
506.	በጊዜ ህክምና ካልተገኘ በሽታው ገዳይ ነው					
507.	በሽታው ከያዘኝ ከደንበኞቼ ጋር ያለኝን ግንኙነት ያበላሽብኛል					
508.	በበሽታው ምክንት የሚደርስብኝ ችግር ረጅም ጊዜ ሊቆይ ይችላል					
509.	በሽታው ከ ሌሎች በሽተዎች ይበልጥ አስከፊ ነው					
510.	በሽታው ከያዘኝ የገቢ ምንጬ አደጋላይ ሊወድቅ ይችላል					

በግብረ ስጋ ግንኙነት የሚተላለፉ በሽታዎችን (ኤች አይ ቪን ሳይጨምር) በተመለከተ የሚሰጡ የህክምና አገልግሎት ጠቀሜታን በተመለከተ						
511.	የህክምና አገልግሎቱን ስጠቀም ጥሩ ስሜት ሊሰማኝ ይችላል					
512.	የህክምና አገልግሎቱን በመጠቀም በበሽታው የመሞት እድልን መቀነስ ይቻላል					
513.	በየጊዜው ቅድመ ምርመራ በማድረግ ለወደፊት በበሽታው ምክንያት የሚደርሱ ችግሮችን መቀነስ ይቻላል					
514.	በየጊዜው ቅድመ ምርመራ ማደርግ ከ ሆነ በሽታው አያሳስበኝም					
515.	በጊዜ ህክምና በማግኘት በሽታው ወደ ደንበኞች የመተላለፍ እድሉን መቀነስ ይቻላል					
በግብረስጋ ግንኙነት የሚተላለፉ በሽታዎችን (ኤች አይ ቪን ሳይጨምር) በተመለከተ የሚሰጡ የህክምና አገልግሎትን እዳይጠቀሙ ሚደረጉ መሰናክሎችን በተመለከተ						
516.	የህክምና አገልግሎቱ ለማግኘት ረጅም ሰአት ይወስዳል					
517.	የህክምና አገልግሎቱ ለማግኘት ጤናተቋም መሄድ ያሳፍራል					
518.	የጤና ባለሞያው ሰውነቴን ዲያይብኝ አልፈልግም					
519.	የህክምና አገልግሎቱነን ስወስድ የማውቀው ሰው ሊያየኝ ይችላል ብዬ ፈራለሁ					
520.	የህክምና አገልግሎቱነን መጠቀም ብዙ ገንዘብ ይጠይቃል					
በግብረስጋ ግንኙነት የሚተላለፉ በሽታዎችን (ኤች አይ ቪን ሳይጨምር) በተመለከተ የሚሰጡ የህክምና አገልግሎትን እዲጠቀሙ ሊያነሳሱትት የሚችሉ ነገሮች						
521.	ስለ ህክምናው በ መገናኛ ብዙሀን ሰምቻለሁ					

522.	በሽታው የያዛት ጉአደኛዬ ህክምናውን ህክምናውን እንድጠቀም አርጋኛለች					
523.	የማውቀው ዘመዴ ህክምናውን እንድጠቀም አርጎኛል					

DECLARATION

I, the undersigned, declare that this thesis is my original work, has not been presented for a degree in this or any other university and that all sources of materials used for the thesis have been fully acknowledged.

Name: _____

Signature: _____

Name of the institution: _____

Date of submission: _____

This thesis has been submitted for examination with my approval as University advisors

Name and Signature of the first advisor _____

Name and Signature of the second advisor _____