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COLLEGE OF HEALTH SCIENCES

SCHOOL OF PUBLIC HEALTH

**WILLINGNESS TO CERVICAL CANCER SCREENING AND
ASSOCIATED FACTORS AMONG FAMILY PLANNING RECEIVING
WOMEN AT SELECTED HEALTH CENTERS IN ADDIS ABABA,
ETHIOPIA**

BY:

AYNADIS ASRAT (BSc)

**A RESEARCH THESIS SUBMITTED TO THE SCHOOL OF PUBLIC
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FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF PUBLIC HEALTH IN HEALTH SYSTEM MANAGEMENT
AND HEALTH POLICY.**

MARCH 2021

ADDIS ABABA, ETHIOPIA



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ACRONYMS

AOR	Adjusted odds ratio
ASMR	Age –Standard Mortality Rate
ASR	Age-Standardized Rates
CC	Cervical Cancer
CDC	Center for Disease Control and prevention
COR	Crude odds ratio
FMOH	Federal Ministry of Health
FP	Family planning
HC	Health center
HIV	Human Immune-deficiency Virus
HPV	Human Papilloma Virus
ICC	Incidence of Cervical Cancer
LMICs	Low- and Middle-Income Countries
MPH	Master of Public Health
PAP	Papanicolaou
SSA	Sub- Sahara Africa
STD	Sexual Transmitted Disease
STI	Sexually Transmitted Infection
VIA	Visual Inspection with Acetic Acid
WHO	World Health Organization

ABSTRACT

Background: Cervical cancer is a disease in which cervical cells become abnormal and begin to develop uncontrollably forming tumors. It is the first most common cancer in women living in Sub-Saharan Africa. Cervical cancer is a disease that can be cured. Cervical cancer screening can reduce at least 50% of cervical cancer deaths. In Ethiopia, practice of cervical cancer screening is below 1%. In the presence of high risk for acquiring cervical cancer among family planning receiving women, willingness of the screening is low in Addis Ababa, Ethiopia. Thus, the current study was aimed, to assess the willingness towards cervical cancer screening and associated factors among family planning users in selected the health center of Addis Ababa.

Method; An institution based cross-sectional study was conducted among 520 family planning service users at selected health centers in Addis Ababa from June 2020-February 2021. The study participants were selected using a multistage sampling method. Descriptive analysis was done and binary logistic regression was used to assess the association between the independent and dependent variable. A variable with p-value less than 0.25 was entered in to multivariable logistic regression model. Final the finding was reported by using adjusted and crude odds ratio along with a 95% confidence interval.

Result: The willingness to have tested for cervical cancer screening among family planning service users was 72.5%. The odd of cervical cancer screening willingness was three times more likely among women who had good knowledge about cervical cancer than those who had poor knowledge (AOR:3.18,95% CI:1.83-5.54). Women who attend higher education were three times more likely willing to screening test than those who attend below that level (AOR: 2.54, 95% CI: 1.02, 6.35). Having more than four children (AOR: 1.34, 95% CI: 1.10-3.38).

Conclusion: This study assesses the willingness of women to participate in cervical cancer screening and explore the factors that affect their willingness. Accordingly, among women interviewed, the study found that majority of them (72%) was willing to participate in cervical screening. The willingness of cervical cancer screening among respondents were affected by knowledge level toward cervical cancer, number of children a women had, education status of women.

Key words: Cervical Cancer Screening, Willingness, Addis Ababa

1. INTRODUCTION

1.1. Background

Cervical cancer is cancer arising from the cervix, in which the cells of the cervix become abnormal and start to grow uncontrollably, forming a tumor. Approximately 90% of intraepithelial Neoplasia is attributed to Human Papilloma Virus (HPV) infection. Cervical cancer is one of the very few cancers where a precursor stage (pre-cancer) lasts many years before becoming invasive cancer, providing an opportunity for detection and treatment (1).

Although other carcinogenic HPV forms, such as HPV-45 and 35, are also relatively more common in Sub Sahara Africa compared to other world regions, the most common genotypes in cervical cancer are Human Papilloma Virus -16 and 18(2).

Cervical cancer can be prevented at three levels: primary, secondary and tertiary. Primary prevention, according to the WHO, entails giving HPV vaccine to girls aged 9 to 13, as well as providing them with adequate health information and warnings about the risk behaviors linked to cervical cancer. Secondary prevention, in theory, entails the early identification and treatment of subclinical, asymptomatic cancers(3).

Cervical cancer screening is the systematic application of a test to identify cervical abnormalities in an asymptomatic population. Women targeted for screening may feel perfectly healthy and see no reason to visit health facilities (4).

Visual inspection with acetic acid (VIA): When vinegar is applied to abnormal cervical tissue, it temporarily turns white (aceto-white) allowing the provider to make an immediate assessment of a positive (abnormal) or negative (normal) result. If iodine is applied to the cervix, while squamous epithelium stains brown or black, and columnar epithelium retains its normal pink color. Because they do not rely on laboratory services, VIA alternatives to cytology where resources are limited(5).

Cervical cancer screening coverage is a significant issue in developed countries, and it is a major obstacle to lowering mortality and morbidity. Cervical cancer is the second most common cancer in African women, after breast cancer. According to the World Health Organization (WHO), the projected cervical cancer mortality rate for all 78 countries in 2020 is (Low-income and lower-middle-income countries)(6).

According to 2012 survey conducted in Ethiopia, 29.4 million people are at risk of cervical cancer. Cervical cancer rates have increased over the last 16 years (7). The effectiveness of any screening program would depend on the proper rendering of facilities, health providers, availability, low cost, and above all, women's knowledge and attitude towards the final recipient(8).

According to Ministry of Health (MOH) report, 73,514 health professionals were working in 2782 government health facilities (122 hospitals and 2660 health centers) in Ethiopia (9). The Addis Ababa study showed that the shortage of skilled health practitioners, budget and low service coverage are obstacles to the use of cervical cancer screening in Ethiopia(10).

Cervical cancer screening is not widely accepted. According to studies conducted by the Addis Ababa City Administration, approximately 63 percent of HIV positive women who were presented in Health Centers were willing to be screened for cervical cancer (11).

The Ethiopian government has made many attempts to increase cervical cancer screening coverage and awareness. In 2015, the cancer registry in Addis Ababa and regional states was finalized, and a total of 22,818 women aged 30-49 were screened for cervical cancer(12).

Though there have been very few studies in Ethiopia to determine the willingness of women to undergo cervical cancer screening(11, 13). Thus, this study identified factors associated with willingness of cervical cancer screening.

1.2. Statement of the problem

In the world, approximately 570 000 cases of cervical cancer and 311,000 deaths from the disease occurred in 2018(1). The estimated age-standardized incidence of cervical cancer was 13.1 per 100,000 women globally and varied widely among countries, with rates ranging from less than 2 to 75 per 100,000 women. Cervical cancer was the leading cause of cancer-related death in women in eastern, western, middle, and southern Africa(6). Women in the low and middle-income country have three times the risk of dying of cervical cancer compared to those in high-income countries (3).

According to a WHO study published in 2012, the confirmed incidence of cervical cancer in Ethiopia was 17.3 percent, with a mortality rate of 16.5 percent(14). Cervical cancer prevalence and mortality rates in Ethiopia are 26.4 and 18.4 per 100,000, respectively, in 2019(15). About 7619 with new cervical cancer cases are diagnosed and 6081 cervical cancer deaths occur annually in Ethiopia. Cervical cancer is the 2nd most common female cancer in women aged 15 to 44 years in Ethiopia (16).

Women in developing countries seem to utilize reproductive health services more during pregnancy, for a postnatal checkup and family planning, or when faced with various gynecological problems rather than for prevention purposes (13). Studies indicate that lack of a screening service, the absence of symptoms and not knowing about screening were the perceived reasons for the low uptake(17, 18). Despite the fact that cervical cancer is the leading cause of cancer-related morbidity and mortality among Ethiopian women, there is a lack of data on how the reproductive women views the disease(19). In 2017 ICO Information Centre on HPV and Cancer report, the total coverage of cervical cancer screening in Ethiopia is 0.8 percent. Nevertheless, 11% had undergone cervical screening at least once in their lifetime(20).

Having Knowledge about cervical cancer and screening methods is a pre request for practicing screening. However, Among the study conducted in Addis Ababa, Wolaita, Wolliso 34%, 43% and 36% of the participants had good knowledge about cervical cancer respectively (21-23).

However, improvements in cervical cancer screenings are insufficient to increase screening attendance thus; the factors that influence women's willingness to undergo screenings must be understood.

Among the participants of the study conducted in immigrants of Russia, Somalia and Kurd, live in Finland 74, 35 and 61 percent of them had willingness for cervical cancer screening respectively(24). Studies conducted in Addis Ababa City Administration, and Tigray region among reproductive women who were presented in Health Centers, about 63, and 47 percent of them were willing to be screened for cervical cancer(13, 22).

Studies indicated that among those participants, those women who had higher education level, use family planning for long time, know the risk factors of cervical cancer, and who had symptom of cervical cancer had willingness for cervical cancer screening(25-27).

Nevertheless, so far to the best of my knowledge there is low level of willingness of cervical cancer screening among women in Addis Ababa health center. This study shows the Willingness to cervical cancer screening and associated factors among family planning receiving women at selected health centers in Addis Ababa hence, there is information gap in this regard.

1.3. Significance of the study

Despite high prevalence of the disease it is important to elucidate at what level the women population, in general, were willing to the service. However, improvements in cervical cancer screenings are insufficient to increase screening attendance; thus, the factors that influence women's willingness to undergo screenings must be understood. Emerging research suggests that gynecologic health care including cervical cancer screening was underutilized by women in Addis Ababa public health center (16). Identification of those parameters may help the health care system reducing maternal death.

The obtained information will be used for decision makers and organizations working on cancer and family planning service to consider and integrate cervical cancer screening as part of family planning service.

Despite a number of articles on cervical cancer screening and related issues locally and internationally but few was done on willingness of cervical cancer screening.

The factors that affect the willingness to cervical cancer screening are identified and will help pertinent authorities of health to design evidence-based cervical cancer prevention programs.

2. LITERATURE REVIEW

Cervical cancer is the fourth most common cancer in women worldwide, making it a public health concern. At the moment, Africa bears the brunt of the disease's responsibility. According to the 2017 ICO Information Centre on HPV and Cancer report, Ethiopia has a total coverage of 0.8 percent for cervical cancer screening.(20). In Ethiopia, incidence and mortality rates of cervical cancer are 26.4 and 18.4/100,000. The most relevant cause of cervical cancer is a persistent infection with high-risk genotypes of HPV (16, 18, 31, 52)(15).

In Ethiopia in 2019, 7619 new cases and 6081 mortality numbers of cervical cancer registered at the cancer registry during the the 16-year period. The peak age of incidence was between 40-49 years, of cervical cancer (17).

Ethiopia actually has only one cervical cancer treatment center. There is a commitment to create additional comprehensive cancer centers in the area in light of the issue and service limitations. The Ministry of Health recently released cervical cancer prevention guidance, with the aim of providing healthcare providers with easy-to-follow instructions(28).

Screening with visual inspection with acetic acid (VIA) in resource-limited settings is a commonly preferred method than HPV test and cytologic or Pap smear. This is because it does not need testing requirements (trained cytotechnicians or pathologists and another programmatic requirement) (4). Health center in Addis Ababa perform cervical cancer screening using VIA(5).

2.1. Willingness towards cervical cancer screening

Willingness of cervical cancer screening is critical factor to keep the disease under control and the diseases management is usually carried out by the individual willingness.

Among the participants of the study conducted in Nigeria, Malawi, African American jailed women about 96, 67 69 percent of them had willingness for cervical cancer screening respectively (29-31). Studies conducted in Addis Ababa City Administration, among HIV positive women who were presented in Health Centers and Tigray region about 63, and 47 percent of them were willing to be screened for cervical cancer(13, 22).

2.2. Associated factor for the willingness of cervical cancer screening

2.2.1 Socio-demographic characteristics

Studies in Korea, Russian, Somalia and Indian indicated that among those participants women who had higher education, Being married, a rural residence, and using private health insurance were significantly associated with higher rates of willingness to cervical cancer screening (24, 32, 33).

Females of the oldest and middle birth cohorts were less likely to be screened in a German than those of the youngest birth cohort. In contrast to better-educated women, less-educated women and those with a low-level high school diploma had a lower chance of being screened.(27).

Women aged 40–49 years old were more likely to be screened (36.1 percent) than women aged 18–29 years old, according to a 2019 study conducted at St. Pauls Hospital (8 percent). Women in urban areas were more likely to be screened (15.9%) than women in rural areas (3.9 percent). Low monthly income is one of the other factors(34).

In a research conducted in Tigray, willingness to screening for cervical cancer was significantly associated with People in the age groups of 30–39 and 40–49 years were two to four times more likely than people in the age group of 21–29 years to use cervical cancer screening.(13).

2.2.2 Maternal reproductive health characteristics

Peru, Somalia, and Russia were the subjects of a cross-sectional analysis. A history of sexually transmitted infection, age of first sexual activity, number of sexual partners, age of first birth, and total number of pregnancies were all associated with a higher willingness to use cervical cancer screening (24, 35).

A cross-sectional research conducted in Tigray in 2019 found that women who had ever given birth and had a history of multiple sexual partners were more likely to seek cervical cancer screening. (13). Participants with multiple sexual intercourses, number of living child, and recent HIV diagnosis were associated factors for the willingness to undergo cervical cancer screening in A 2017 study conducted in Yergalem General Hospital and Gonder.(18, 36).

2.2.3 Perception about the seriousness of cervical cancer

Several studies have also found that women's views of the effectiveness of cervical cancer screening have an effect on their willingness to undergo the procedure.

Breast cancer was considered to be more serious than other forms of cancer by women and men in a survey conducted in the United States in 2013. Breast cancer is curable if diagnosed early, according to the participants. Cervical cancer was poorly known and misunderstood(37).

In a study conducted in China in 2010, women who thought cervical cancer was serious were more likely to attend cervical cancer screening, and in a study conducted in Kenya in 2013, women who thought cervical cancer was serious were more able to get a cervical cancer screening(38, 39).

According to a study conducted by Wolliso Town in 2017, women who perceived early cervical cancer screening as beneficial to their lives are more likely to get it done than those who do not. (19). In a cross-sectional study conducted in 2019, Jimma women who were thought to be at risk for cervical cancer were more willing than those who were not(40).

2.2.4 Knowledge about cervical cancer

Studies of the various areas of knowledge have demonstrated that the lack of knowledge about cervical cancer appears to be an important factor to participation in cervical cancer screening. The willingness of study participants to undergo cervical cancer screening was influenced by their knowledge of the disease. Studies conducted in Germany, China, Malawi, Nigeria, and Addis Ababa show that study participants' willingness to undergo cervical cancer screening is influenced by their knowledge of the disease(29, 30, 38, 41) .

In 2013, a Nigerian cross-sectional study of HIV-positive women was conducted. Eight hundred and fifty-three respondents (56.2%) were aware of cervical cancer, although only 523 (34.5%) were aware of cervical cancer screening and that women are willing to undergo it. In 2013, a Nigerian cross-sectional study of HIV-positive women was conducted. Eight hundred and fifty-three respondents (56.2%) were aware of cervical cancer, although only 523 (34.5%) were aware of cervical cancer screening and that women are willing to undergo it(29).

According to a community-based cross-sectional study conducted in Mekelle knowledge of cervical cancer and screening is a predictor of cervical cancer screening (27). In the Northeast,

only 51.9 percent of women had ever heard of cervical cancer, and only 57.7% had good knowledge of the disease(42). Just 14.7 percent of women in the northwest of Ethiopia who knew about cervical cancer screening had undergone cervical cancer screening, according to a survey. The study also discovered that the public's understanding of cervical cancer risk factors, symptoms, and prevention options are severely lacking(43).

2.3. Conceptual framework

There is an interaction between willingness of cervical cancer screening and the associated factors. From all the discussion the interdependency of multiple factors contributes the willingness of cervical cancer screening.

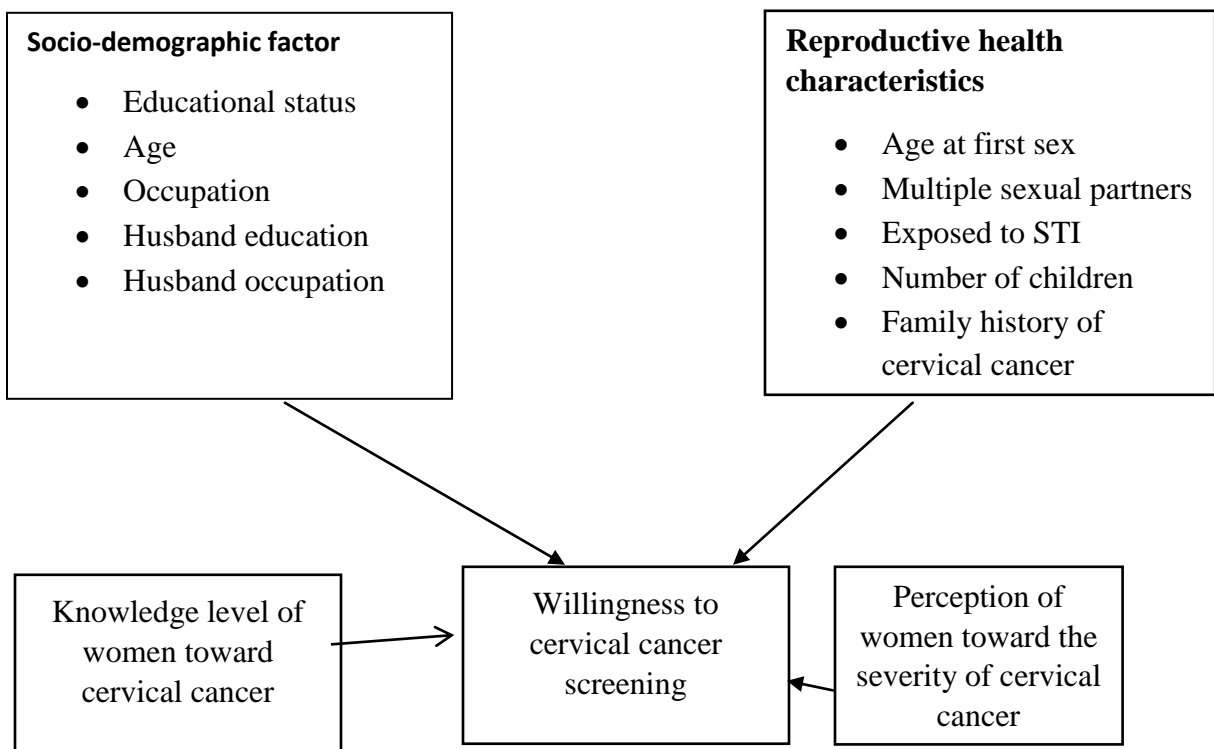


Figure 1. Conceptual framework of willingness to cervical cancer screening and associated factor among family planning receiving women in Addis Ababa health center adapted from (13, 22).

3. OBJECTIVES

3.1. General objective

- To assess the willingness of cervical cancer screening and associated factors toward cervical cancer screening among family planning users at selected health center in Addis Ababa, 2020.

3.2. Specific objective

- To assess willingness to screen for cervical cancer among family planning users at selected health facilities in Addis Ababa, 2020.
- To identify the reproductive factor that determines the willingness of cervical cancer screening among family planning users at selected health facilities in Addis Ababa, 2020.
- To identify SocioDemographic factor that determines the willingness of cervical cancer screening among family planning users at selected health facilities in Addis Ababa, 2020.
- To identify knowledge as factor that determines the willingness of cervical cancer screening among family planning users at selected health facilities in Addis Ababa, 2020.

4. METHOD

4.1. Study Area and study period

The research was conducted in Addis Ababa public health centers among family planning recipients, with a large number of reproductive women seeking family planning services. This group of women was chosen because they were all not seriously ill, could answer the question without difficulty, and was a high-risk group for cervical cancer. Addis Ababa covers an area of 540 square kilometers (54,000 hectares) with a total population. There are 4.8 million people in the city and 2.7 million in the countryside(44).

The city has ten Sub-city and 116 woreda. The city has 13 governmental hospitals and 99 health center(5). Family planning facilities were available at all of the health centers. In 2018, higher clinics were the least likely to provide family planning services (80%), while health centers were the most likely to do so (99%)(45). The most popular source of modern contraception is the public sector (84%), followed by the private medical sector(14%) (46). According to Addis Ababa health bureau report there are 208,592 family planning receiving women in 99 health center of Addis Ababa in the year of 2019. Long-acting contraceptives are used by 112,637 of them, while short-acting contraceptives are used by 96,307 of them (5).

The study was conducted from October 2019- February 2021. According to a study from the Addis Ababa Health Bureau, all health centers have a cervical cancer screening department. However, the divisions are ill-equipped to provide screening facilities (5).

4.2. Study design

The study design of this research was institution based cross-sectional carried out using structured questionnaire.

4.3. Source of population

All women who were at reproductive age and presenting themselves at health centers to obtaining family planning services.

4.4. Study population

Reproductive women who are using family planning service in Addis Ababa health center.

4.5. Inclusion criteria and Exclusion criteria

4.5.1 Inclusion criteria

Women who were at reproductive age (15-49) and came to the selected health facilities to obtain family planning services.

4.5.2 Exclusion criteria

Women who were below 15 years old and came to the selected health facilities to obtain family planning services.

4.6. Sample size determination

The sample size was determined by using a single population proportion formula by considering the following assumption:

$$n = (Z \alpha/2)^2 * P (1-p) / d^2$$

Z=standard score corresponding 95% confidence interval 1.96 and d= marginal error corresponding (d) 5%. n= sample size and by adding 10% of non-response rate and multiply by a design effect of 1.4.

- The proportion for willingness to cervical cancer screening 63%(22)which gave a sample size of 550.

4.7. Sampling technique

There are 98 public health centers, ten sub-cities found in Addis Ababa city administration. A multi-stage sampling technique was used. Sub-city was the primary sampling unit and woreda was the secondary sampling unit. Five sub-cities out of the total 10 sub-cities were selected using a simple random sampling method. Two health centers were selected from the selected woreda by simple random sampling. The number of study participants was included in each health center was determined by the average number of clients who came to a family planning center per day ten. Then we proportionally allocated 550 the study subject to ten health centers till the required sample size achieved. In the study, 520 women consented to participate in the study

Sampling procedure

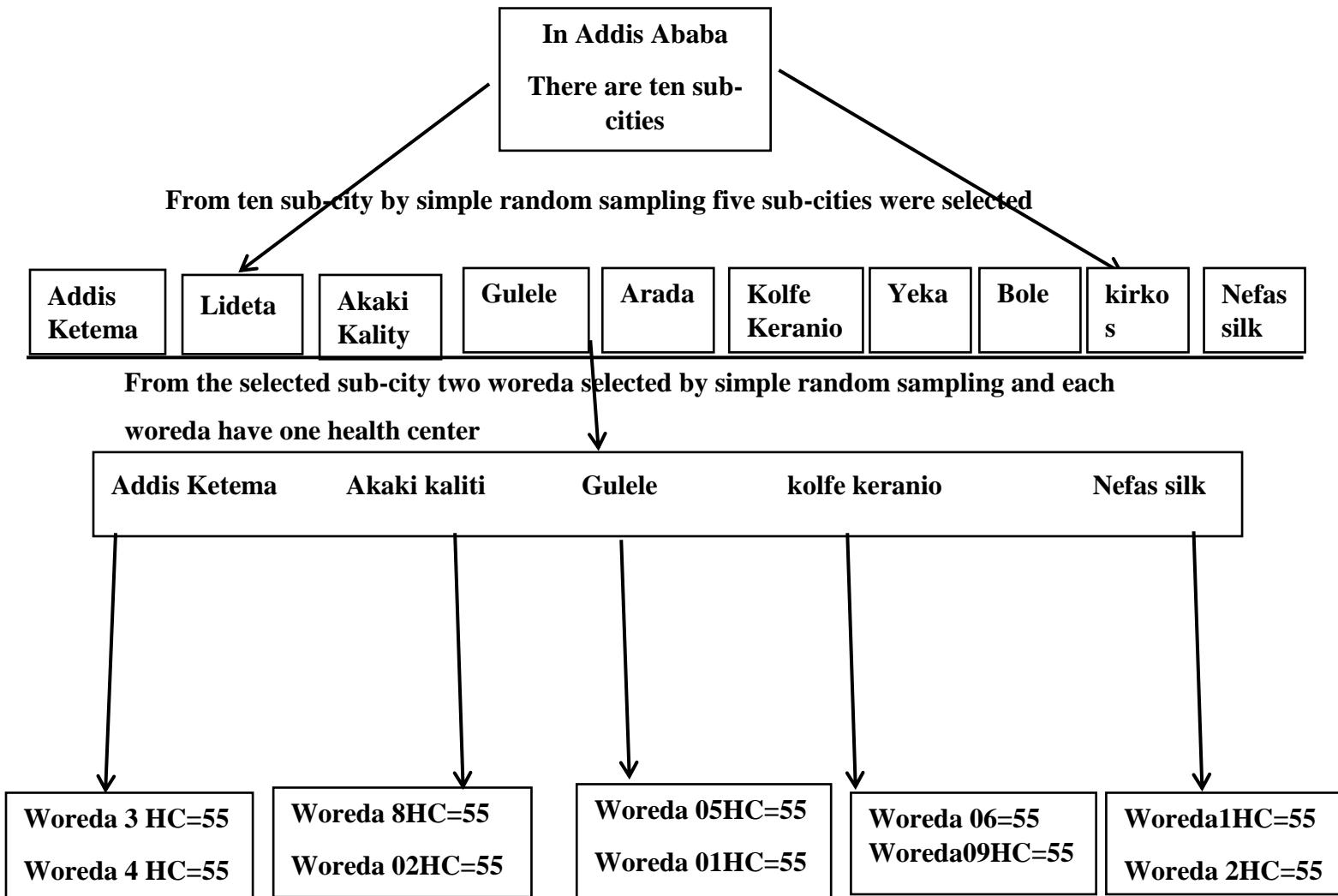


Figure 2, Schematic presentation of the sampling procedure

4.8. Data collection procedures

The data was collected by using structured questionnaires to assess the willingness of cervical cancer screening among family planning user which consists of two main categories: assessing the willingness of screening and associated factors.

Data was collected by face to face interview using structured and pretest questionnaires in a place where the woman feels free to express their ideas. Moreover, on occasions where the

sampled women are not accessed for absence, up to three attempts were tried for interviewing to decrease the non-response rate. The questionnaires were checked by the supervisors on daily basis for completeness.

4.9. Data Quality management

At the time of data collection, the principal investigator checked the questionnaire for completeness and consistencies. Continuous supervision was conducted during data collection at the field, the fulfillment of the data was checked at the site and in-home by the principal investigator, daily meetings after the data collection was also held with the data collectors. Data entered with Epi data then exported to statistical package for social sciences (SPSS) version 20 for data analysis. But before starting data analysis cross-checking of the questionnaire with the soft copy was performed to ensure consistency.

4.10. Data processing and analysis

The results were organized, summarized, and presented using appropriate descriptive measures such as frequencies and percentages.

Associations between the dependent and independent variables are assessed by using an odds ratio with a 95% confidence interval. Bivariate analysis was used to screen variables that have a significant association with the outcome variable with P-value <0.25 . These variables were entered into multiple logistic regressions to assess the predictor of willingness to screen cervical cancer. Finally Variables with p-value less than 0.25 were considered statistically significant.

4.11. Study Variable

4.11.1 Dependent variables

Willingness to cervical cancer screening.

4.11.2 The associated factor for willingness cervical cancer screening

1. **Socio-demographic factor:** Age, Marital status. Occupation, Educational level
2. **Perception:** Perception toward the severity of the disease
3. **Reproductive health characteristics:** Age at first sex, Number of sexual partners, Methods of contraceptive use, Exposed to STI, Number of children

4. **Knowledge of women toward cervical cancer:** Cervical cancer risk factors, Cervical cancer Cause, Cervical cancer preventable disease.

4.12. Operational Definition

Willingness to cervical cancer screening; Refers to women who answered yes to the questions of willingness of cervical cancer screening.

Perceived seriousness of cervical cancer; Refers to women who answered Yes to the questions “cervical cancer is serious disease”.

Knowledge of cervical cancer;

Good knowledge; Refers to women who answered Yes to the questions on knowledge of cervical cancer.

Poor knowledge; Refers to women who answered No to the questions on knowledge of cervical cancer.

4.13. Ethical Considerations

Ethical clearance was obtained from the Research and ethics committee of the school of Public Health Addis Ababa University College of Health Sciences. Before starting the fieldwork, ethical clearance and approval of the University were written a formal letter to Addis Ababa health bureau and also health bureau does the same thing to each sub-city administrations.

The purpose of the study was discussed with local authorities and with respondents before data collection. The explanation was given to participants on their voluntary participation; anyone who wasn't willing to participate in the study has the full right to withdraw from the study at any time. Informed consent was obtained from each study participants; Privacy and confidentiality were maintained throughout the process of the data collection. The data was been stored in a file, without the name of the study participants. Individual participant records were coded on each respective questionnaire and accessed only by research team members and not disclose to others.

4.14. Dissemination of results

The findings of the study will be communicated to all relevant organizations and bodies who can make use of the study including Addis Ababa University, Department of Public Health, Addis

Ababa University, Department of Reproductive Health, Ministry of Health and Addis Ketama, Akaki, Gulele, kolfe keranio, and Nefas Silk Lafto sub-city health center.

5. RESULT

5.1. Socio-demographic characteristic

A total of 520 respondents participated in the study, yielding a response rate of 95%. Most of respondent were age 296 (56.9%) age between (30-39), 212 (40.8%) were between (18-29) age group and 12 (2.3%) were above 40 years. The mean age was 31 SD 4.1.

Educational status of the participant 30 (5.8%) illiterate, 325 (62.5%) attend primary & secondary and 165 (31.5%) attend higher education. Occupation of participants 214 (41.2%) has no income and 306 (58.8%) have income (Table 1).

Table1,Socio demographic characteristic among family planning receiving women in Addis Ababa health center in2020.

Variable	Categories	Frequency	Percent
Age group	18-29	212	40.8
	30-39	296	56.9
	>40	12	2.3
		520	100%
Education status	Illiterate	30	5.8
	Primary & secondary	325	62.5
	Higher education	165	31.5
		520	100%
Occupation	Unemployed	214	41.2
	Employed	306	58.8
		520	100%
Husband Education	Illiterate	2	0.4
	Primary & secondary	187	36
	Higher education	302	58.1
		491	94.5%
Husband occupation	Unemployed	214	41.2
	Employed	306	58.8
	Total	520	100%

5.2. Knowledge about cervical cancer

Out of five questions list in (table2) set to assess the knowledge level of the study subject yes 1 or No 0 point and who had greater or equal to the mean (good knowledge) were 190(36.5%) the rest 330(63.5%) had poor knowledge. The majority of respondents 408 (78.5%) do not know the cause of cervical cancer. But the majority of the respondents 481(92.5%) know cervical cancer is preventable. From the multiple-choice question, 302 (58%) respondents said that multiple sexual relations were the risk factor and 260 (50%) respondents said that early sexual intercourse was the risk factor (Table 2).

Table 2. Level of knowledge about cervical cancer among women of family planning users in Addis Ababa health center in 2020.

Variable	Categories	Frequency	Percent
Caused by virus	Yes	111	21.3
	No	408	78.5
		519	99.8
Preventable disease	Yes	481	92.5
	No	39	7.7
		520	100%
Have a risk factor	Yes	307	59
	No	213	41
		520	100%
Multiple sexual relations are a risk factor	Yes	302	58.1
	No	15	2.9
	I don't know	203	39
		520	100%
Early sexual intercourse is a risk factor	Yes	260	50
	No	31	6
	I don't know	229	44
	Total	520	100%

5.3. Reproductive health characteristics

Thirty-eight women (7.3%) had sexual intercourse for the first time at the age of sixteen or below. The majority of the women 482 (92.7%) had sexual intercourse above the age of sixteen.

The majority of the women, 457 (87.9%) hadn't a history of multiple sexes. Once while 216 (41.5%) had a history of STD. Seventy-one (13.7%) participants had a family history of cervical cancer. Three hundred fifteen (60.6%) of participants had 2-4 children. The majority of participants 182(35%) use injectable contraceptive second major oral contraceptive 142 (27%), the least IUCD 87(16%). More than one-third of the study participants 197 use contraceptives above one year (Table 3).

Table 3, Reproductive health characteristics Among family planning receiving women in Addis Ababa health center in2020.

Variable	Categories	Frequency	Percent
Age at first sex	>16 years old	482	92.7
	<16 years old	38	7.3
		520	100%
Multiple sexual partners	Yes	63	12.1
	No	457	87.9
		520	100%
History of cervical cancer in a family	Yes	71	13.9
	No	449	86.2
		520	100%
Types of the family planning method	IUCD	87	16.7
	Injectable	182	35.0
	Contraceptive	142	27.3
	Oral contraceptive	106	20.4
	Implant	3	0.6
	Others	52	100
	Total	520	100%

5.4. Perception about seriousness or severity of cervical cancer

Out of the five questions that were set to measure the perceived severity of cervical cancer, of the 105(20.2%) respondents had a perception about the severity of cervical cancer. the rest 415(79.8%) did not perceive as it is serious.

Out of the total participants, 253(48%) of them perceived that they are likely affected by cervical cancer and 301(58%) of participant responded that reproductive women were susceptibility cervical cancer. 125 (24%) perceive it is a serious as other cancer and (204) 39% of them thought it is serious above 50 years old (Table 4).

Table 4, Perception toward the seriousness of cervical cancer among family planning receiving women in Addis Ababa health center in 2020.

Variables	Categories	Frequency	Percent
Reproductive women are likely to be affected	Yes	301	57.9
	No	219	42.1
		520	100%
You think you likely to be affected	Yes	253	48.3
	No	267	51.7
		520	100%
Cervical cancer is serious >50 years old	Yes	316	60.8
	No	204	39.2
		520	100%
Cervical cancer makes life difficult	Yes	437	84
	No	83	16
		520	100%
Cervical cancer is as serious as other cancer	Yes	125	24
	No	395	76
		520	100%

5.5. Willingness toward cervical cancer screening

Around 377(72%) study participants willing to cervical cancer screening. Four hundred ten (78.8%) of the study participants claimed that no one recommended them to take cervical cancer screening. Those study participants who score above the mean value for willingness questions were willing to cervical cancer screening.

A total of 374(71.9%) of the study participants were willing to undergo pelvic examination and cervical cancer screening. If the screening service is integrated into the family planning service clinic and free 377(72.5%) study subjects were willing and the same study participants wish to undergo cervical cancer screening at the nearby health center (Table 5).

Table 5, Willingness of cervical cancer screening among family planning receiving women in Addis Ababa health center in 2020.

Variable	Categories	Frequency	Percent
Is there anyone who recommended you to undergo cervical cancer screening	Yes	110	21
	No	410	79
		520	100%
Are you willing to undergo a pelvic examination	Yes	374	72
	No	146	28
		520	100%
Are you willing to undergo cervical cancer screening?	Yes	374	72
	No	146	28
		520	100%
Are you willing to undergo screening if it is free & integrated into the family planning service clinic?	Yes	377	72.5
	No	147	27.3
		520	100%
Are you willing to undergo screening at the nearby health center	Yes	377	72.5
	No	140	27.5
		520	100%

5.6. Associated factor for the willingness of cervical cancer screening

5.6.1 Socio demographic factors

In bivariate analysis among the socio-demographic characteristics of respondents' age, Educational status, and Occupation Status showed statistically significant with the Willingness of cervical cancer screening. Whereas husband education and husband occupation did not have statistical association with the willingness of cervical cancer screening. The willingness of cervical cancer screening was better among respondents Age group was 30-39 (COR=3.21, 95% CI;(1.253-8.224).

More than Forty years old were (COR=3, 95% CI; (1.185-6.146) as compared to those who were an 18-29age group. The willingness of cervical cancer screening was better among respondents who attained primary educational level & secondary school (COR=6.1 95% CI;(2.0-18.68) and those above college or university (COR=9, 95% CI;(4.803-21.38) as compared to those who were illiterate (Table 6).

Table 5, Socio-demographic factors associated with willingness of cervical cancer screening among family planning receiving women in Addis Ababa health center.

Variables	Categories	Willing	Unwilling	COR
Age	18-29	90	36	1
	30-39	256	100	3.21(1.253-8.224)
	>40	31	2	2.69(1.185-6.146)
Occupation	Employee	242	135	0.456(0.308-0.677)
	Unemployed	63	77	1
Educational status	higher education	157	8	9(4.803-21.38)
	Primary& secondary	213	110	6.1(2.0-18.68)
	Illiterate	7	22	1
Husband Educational status	higher education	255	47	0.184(0.11-2.998)
	Primary & secondary	103	84	0.824(0.51-13.36)
	Illiterate	1	1	1

5.6.2 Reproductive factors

In bivariate analysis among the reproductive characteristics of respondents' age at first sex, multiple sexual intercourses, and family history of cervical cancer were not significant statically. Affected with STD infection COR=1.63 95% CI; (1.083-2.452) were more willing to cervical cancer screening than those who were not exposed STD, Number of children who have more than four children COR= 2.052, 95% CI; (1.11-3.79) than who has below four number of children were significant (Table 7).

Table 6, Reproductive factors associated with willingness of cervical cancer screening among family planning receiving women in Addis Ababa health center.

Variable	Categories	Willing	Unwilling	COR
Age at first sex	<16 years old	21	12	1.59(0.76-3.323)
	>16 years old	356	128	1
Multiple Sexual intercourses	Yes	43	14	0.86(0.456-1.632)
	No	334	126	1
Family history of cervical cancer	Yes	54	15	1.384(0.751-2.55)
	No	323	124	1
Expose to STD	Yes	169	208	1.63(1.083-2.452)
	No	47	92	1
Number of children	0	27	9	1
	1-3	281	117	1.64(.635-4.24)
	>4	69	14	2.052(1.11-3.79)

5.6.3 Knowledge level toward cervical cancer

In bivariate analysis among the knowledge level of respondents ‘who were Good knowledge of cervical cancer were COR=7.743 95% CI;(4.822-12.43) compared to those who had poor knowledge (Table 8).

Table 7. Knowledge level toward cervical cancer associated with willingness of cervical cancer screening among family planning receiving women in Addis Ababa health center.

Variable	Categories	Willing	Unwilling	COR
Knowledge of cervical cancer	Good	100	261	7.743(4.822-12.43)
	Poor	89	30	1

5.3.4 Perception about the seriousness of cervical cancer

In bivariate analysis among the respondents' who perceive serious COR= 0.050, 95% CI; (0.030-0-090) less likely to willing for cervical cancer screening compared to those who were not perceive serious (Table 9).

Table 8, Perception of the seriousness of cervical cancer factors associated with willingness of cervical cancer screening among family planning receiving women in Addis Ababa health center.

Variable	Categories	Willing	Unwilling	COR
perception toward the seriousness of cervical cancer	Perceive serious	161	15	0.050(0.030-0-090)
	Not perceive serious	15	125	1

5.7. Overall factors associated with the Willingness of cervical cancer screening

In bivariate logistic regression analysis, educational status, occupation, Exposed to STD, having more than four children, knowledge about cervical cancer had a significant association with cervical cancer screening willingness. Those with a p-value < of 0.25 in the bivariate logistic regression analysis and adjusted in the table were entered into a multivariable logistic regression analysis to control the effect of confounding factors.

Being age group above 40 years old was 1.5 more likely willing to screen than below that age group (AOR: 1.49 95% CI: 1.11-6.762). Women's educational level has also a significant association with the outcome variable; women who attend higher educations have 2.54 times likely to willing to the screening test than those who attend below that level (AOR: 2.54, 95% CI: 1.018- 6.35).

Regarding the knowledge, those women who had Good knowledge 3 times greater willingness than those who had poor knowledge (AOR: 3.182, 95% CI: 1.8-5.54). Who have more than four children have 1.337 times greater willingness than those who had not more than four children. (AOR: 1.337 95% CI: 1.071-3.379). Regarding the perception, those who perceive the seriousness of the disease 0.09 less likely than those who did not perceive. (AOR: 0.09, 95% CI: 0.052-0.18) (Table 10).

Table 9, Multivariable analysis for factors associated with willingness of cervical cancer screening among family planning users in Addis Ababa health center, Ethiopia 2020.

Variable	Details	Willing	Unwilling	COR (95%CI)	AOR (95%CI)
Age	18-29	90	36	1	1
	29-39	256	100	6.54(1.49-28.73)	1.752(0.466-6.595)
	>40	31	2	2.22(1.42-25.77)	1.49(1.11-6.762)
Education status	Illiterate	7	22	1	1
	Primary & secondary	213	110	6.1(2.0-18.68)	1.1(2.49-4.89)
	Higher education	157	8	9(4.803-21.38)	2.54(1.018-6.35)
Occupation	Employed	135	77	0.456(.0308-0.677)	0.8(0.517-1.455)
	un employed	242	63	1	1
No of children	No child	27	9	1	1
	1-3children	281	117	1.64(0.64-4.24)	1.019(0.24-4.279)
	>4 children	69	14	2.05(1.11-3.79)	1.337(1.10-3.379)
Knowledge level	Good	100	89	7.743(4.822-12.43)	3.182(1.827-5.540)
	Poor	261	30	1	1
Perception	Perceive serious	261	89	0.053(0.030-0.095)	0.09(0.052-0.18)
	Not perceive serious	116	30	1	

6. DISCUSSION

This study assess the willingness of women to participate in cervical cancer screening and explore the factors that affect their willingness. As a result, the study found that the majority of women (72 percent) were willing in cervical screening. This figure corresponded to the findings of studies conducted in Uganda, Malawi, and Addis Ababa.(3, 22, 30).But this result was lower than the study conducted Nigeria(29).The discrepancy of the two study was study setting.

This indicated that if approached and the service is available, women are interested in being screened. In fact, age, educational level, knowledge level toward cervical cancer, among other factors, influence women's willingness to be screened.

Education was found to be one of the most significant factors influencing women's willingness to engage in cervical cancer screening in this research. Since women with a higher level of education have more access to knowledge about the benefits of cervical cancer screening, they are more likely to do so.

This shows that education is one of the major factor that affect the willingness of women to be screened. This study was consistent Among those women in Somalia, Nigeria ,Finote Selam and Wolaita (8, 21, 24, 29).

This study also found that age is another factor that affects the willingness of women to cervical cancer screening. Those women who were above 40 years of old were more willing to participate in cervical cancer screening than those women who were below 40 years of old. The explanation for this, among other things, is that these women learned about the dangers of cervical cancer from women they met who had died from it, as well as knowledge from their families. The findings of this study matched those of Mekelle and Addis Ababa(17, 47).

This study found that women's willingness to undergo cervical cancer screening is influenced by their level of knowledge about the disease. Cervical cancer screening willingness was more readily accepted by women who had knowledge of the disease.

This can be explained as the knowledge level of the women towards cervical cancer might enable to analyze the benefits of cervical cancer screening, then the willingness to utilize the

service increases simultaneously. The study was consistent with the study done in Jimma, Addis Ababa, Mekelle and Nigeria (13, 22, 40, 41).

The Study found those women's perceptions of the seriousness of cervical cancer has less likely on their willingness to undergo cervical cancer screening. This Study was different from the results of the studies conducted Gonder, Mekelle and Wolliso(23, 43, 48) .The discrepancy of the two study was study setting and study population.

And this study also found that reproductive health factor that affect willingness was who had more number of children. The reason for this, among others, these women understood the danger of cervical cancer from those women they knew that died due to cervical cancer and the information they heard from their friends. This study was Consistent from studies conducted in Tigray, Yergalem, Arbaminch and Gonder (13, 18, 36, 49).

Other reproductive factors/participants in this study who had multiple sexual partners, a family history of cervical cancer, or who had early sexual contact had no impact on their willingness to undergo cervical cancer screening. This was due to the study participants' lack of awareness about the causes of cervical cancer, and health care professionals, who are a significant source of health education, have not been shown to influence women's willingness to undergo cervical cancer screening. This suggests that community health workers and other health providers have to work to any program that seeks to increase the willingness for cervical cancer screening rates.

7. STRENGTH AND LIMITATION OF THE STUDY

7.1 Strength

- The strength of this study was use of contextually adapted standardized questionnaire from validated instrument and pre-test in the same local context too.

7.2 Limitation

- There were also social undesirability concerns due to some sensitive questions such as a report on lifetime sexual partners, age at first sex which increased the chance for misclassification of an outcome and therefore, it's likely to impact on estimated crude and adjusted odds ratios.
- The study is conducted only in public health center only that has low socioeconomic status. Therefore, the results should not be generalized to all women in the town, which does not include all women in Addis Ababa. So, it might be difficult to generalize the result to the general population.
- The study design is cross-sectional; therefore, it may be difficult to establish temporal Relationship.

7. CONCLUSION AND RECOMMENDATION

7.1. Conclusion

This study shows as women are interested to be screened if they are approached and the service is available to them .Lack of knowledge about cervical cancer , Low level of Educational status of women, more number of children women had are all factors that influence willingness. Furthermore, respondents with a history of multiple sexual partners and early sexual contact were not willing to be screened for cervical cancer. This misunderstanding arose from a lack of awareness about early cervical cancer detection. Cervical cancer education is important for providing reliable information and the public acceptance of cervical cancer screenings. Health services provider should play an active role in disseminating accurate information about the effectiveness of screenings.

7.2. Recommendation

Pertinent authorities

- Should address knowledge about the importance of cervical cancer screening to all reproductive women in integrate with other services.
- There is a need to strengthen policy and guidelines on cervical cancer screening among reproductive women .

Researcher

- However, not all women who are willing to participate in screenings actually do participate. In-depth interviews are also warranted to determine how women's Willingness transfers to actual participation in screenings

Professional associations

- Health workers and other health providers have to work in awareness creation to cervical cancer.

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ANNEX

Annex 1. Information Sheet

Study Conducted on Willingness and associated factor for women receiving family planning in Addis Ababa health center. My name is _____. I am working as data collector in the research conducted by Aynadis Asrat, who is conducting her research for the partial fulfillment of her Master degree in health system management in Addis Ababa University. We are trying to assess the willingness of cervical cancer screening and associated factor among women receiving family planning in health center. We would like your honest opinion pertaining to the questions. Name of the Principal Investigator: Aynadis Asrat Name of the Advisor: Gashaye Asrat Name of the organization: Addis Ababa University Name of the Sponsor: Addis Ababa University Information sheet prepared for study participants from Addis Ababa city administration health facilities in research project that study about willingness and associated factor among women receiving family planning method in selected health centers. Introduction this information sheet and consent form is prepared by the investigator whose main aim is to study willingness and associated factor among women receiving family planning service in selected health center. Cervical cancer is one of the leading causes of cancer death in women in Ethiopia. However, very few were got screening service, which was an effective measure tested in industrialized world. Procedure: In order to assess the willingness and acceptability of cervical cancer screening in Addis Ababa, Ethiopia, we invite you to take part in this project. If you are willing to participate in our project, you need to understand and give consent through signing. Then, you will be asked to give your response by the data collectors.

Risk and/or Discomfort

By participating in this research project you may feel that it has some discomfort specially on wasting your time (about 20 minutes) but this will not be too much as you are coming to the facility for health services and comparing with its benefit it contributes to the prevention of cervical cancer in the future. There is no risk in participating in this research project. Benefits: If you participate in this research project, you may not get direct benefit but your participation is likely to help us in assessing the barriers against cervical cancer screening. Incentives: You will not be provided any incentives to take part in this project. Confidentiality and Anonymity: The information that we will collect from this research project will be kept confidential. Information

about you that will be collected from the study will be stored in a file, which will not have your name on it, but a code number assigned to it. Which number belongs to which name will be kept under lock and key, and it will not be revealed to anyone except the principal investigator. Right to Refuse or Withdraw: You have the full right to refuse from participating in this research (you can choose not to respond to some or all of the questions) if you do not wish to participate, this will not affect the health services you get at any health facilities. You have also the full right to withdraw from this study at any time you wish to, without losing any of your rights as a resident of this site.

Informed Consent

Detailed information about the study was explained to me. I have understood that the main objective of this study is to determine the willingness of cervical cancer screening and associated factors toward cervical cancer screening among family planning users in the health center of Addis Ababa in 2020.

In addition, I understand how the data collection is proceeding and the time it takes to complete the data collection. I also understand that the research imposes no risk on me. I assured that there would be confidentiality of my response and collected data used only for the study.

It also explained to me that I have the right to stop participation at any time.

In addition, I understood that participating in this study is important for scientific knowledge and a base for further study. Therefore, I have now consented to participate in the study by signing this form.

Signature of participants----- date

Name and signature of data collectors ----- date

Persons to contact: If you have any question you can contact and ask at any time you want

1. Aynadis Asrat Addis Ababa university TEL;+251-912-44-29-64

Email; Aynadisasrat@gmail.com

Annex 2. English version questionnaire

1.1 Socio-demographic characteristics of the women participating in the study

Q. NO	Question	Response	Skip
101	How old are you? years old	
102	What is your religion?	Orthodox.....1 Protestant.....2 Catholic.....3 Muslim.....4 Others.....5	
103	What is your current educational level?	Illiterate.....1 Read and write only.....2 Primary school.....3 Secondary school.....4 diploma.....5 degree.....6 above degree.....7	
104	What is your current occupational status?	Student.....1 Merchant.....2 Government Employee.....3 Nongovernmental organization Employee4 day laborer.....5 unemployed.....6 Others.....98 Specify	

105	What is your current marital status?	Single.....1 Married2 Divorced.....3 Widowed.....4 Separated.....5	
106	What is your husband educational status currently?	Illiterate.....1 Read and write only.....2 Primary school.....3 Secondary school.....4 diploma.....5 degree.....6 above degree.....7	

Section 2 : Reproductive related health question.

	Question	Response	Skip
201	Age at first sex?	less than 16 greater than 16	
202	Do you have multiple sexual partner?	1.yes 2.No	
203	Does anyone a history of Cervical cancer in your family?	1.yes 2.No	
204	Have you ever had STI?	1. Yes 2. No	

205	Which type of family planning method you use?	1.Oral contraceptive 2. Injectable contraceptive 3.Implant 4. IUCD 5. Coitus interrupts 6. Tubal ligation 7. Male or female condom 8. Others-----	
206	For how long did you use contraceptive?	-----	
207	How many children do you have?	1. 0 2. 1 3. 2_4 4. 5+	

Section 3: knowledge about cervical cancer questions.

301	What is the first most cause of cervical cancer and what is the mode of transmission?	HPV/Virus and sexual route.....1 I don't know2 Other,_____3	
302	Is cervical cancer have risk	Yes.....1	

	factor?	No.....2	
303	Cervical cancer is preventable disease?	Yes.....1 No.....2	
304	Multiple sexual relation a risk factor?	Yes.....1 No.....2	
305	Early sexual intercourse a risk factor?	Yes.....1 No.....2	

Section 4; perception (perceived susceptibility, severity of cervical cancer) questions

Perception About Susceptibility to Cervical Cancer;			
401	An y reproductive age woman Is susceptible to develop cervical cancer.	I agree -----1 I disagree-----2	
402	Like any women, I am Susceptible to develop cervical cancer.	I agree -----1 I disagree-----2	
403	Cervical Cancer Only Happens To Women Who Are Above	I agree -----1 I disagree-----2	

	The Age of 50 Years.			
Perception About Seriousness or Severity of Cervical Cancer;				
404	Having Cervical Cancer Will Make A Woman's Life Difficulty.	I agree -----1 I disagree-----2		
405	Cervical Cancer Is Not as Serious as Other Types of Cancers.	I agreeing -----1 I disagree-----2		
406	Death Resulting from Cervical Cancer Is Rare.	I agree -----1 I disagree-----2		

Section 5 Willingness to cervical cancer screening

Q. No	Questionnaire	Response	
501	Do you think it is helpful to detect Cervical Cancer early?	Yes1 No.....2	
502	Has anyone ever recommended that you should have screening for cervical cancer?	Yes1 No.....2	

<p>503</p>	<p>Would you like to undergo gynecological examination? _____</p>	<p>Yes1 No.....2</p>	
<p>504</p>	<p>Are you willing to attend a cervical cancer screening?</p>	<p>Yes1 No.....2</p>	
<p>505</p>	<p>If screening is free and integrated to family planning service giver clinic, will you screen?</p>	<p>Yes1 No.....2</p>	
<p>506</p>	<p>If screening is available at nearby health institution, will you screen?</p>	<p>Yes1 No.....2</p>	

Annex 3. Amharic information Sheet

የእርግዝና መከላከያ ለሚጠቀሙ ሴቶች በማህፀን በር ካንሰር ቅድመ ምርመራ ያላቸውን ፈቃደኝነት እና የተያያዙ ችግሮች ምን እንደሆኑ ለማወቅ የሚያደርግ ጥናት ነው። የምርመራ ፕሮጀክቱ ርዕስ፡- የእርግዝና መከላከያ ለሚጠቀሙ ሴቶች የማህፀን በር ካንሰር ቅድመ ምርመራ ያላቸውን ፈቃደኝነት እና የተያያዙ ችግሮች ምን እንደሆኑ ለማወቅ የሚደረግ ጥናት ነው።

እኔ የምሰራውም በጤና ተቋም ነው። ይህ ጥናት የተዘጋጀው በአዲስ አበባ ዩኒቨርሲቲ የድህረምረቃ ተማሪ በሆኑት ወ/ሮ አይንአዲስ አስራት ነው።

ይህ ጥናት የእርግዝና መከላከያ የሚጠቀሙ እናቶች የማህፀን በር ቅድመ ምርመራ አገልግልት ለማግኘት ያላቸውን ፈቃደኝነት ላይ እንዲሁም አገልግልቱን ላለማግኘት የስቻሎቸው ምክንያቶች ላይ የሚያተኩር ሲሆን ይህ ቅድመ ምርመራ አገልግልት ሊስከትል የሚችለውን ውጤት ለማወቅ እና ለማስገንዘብ ከፍተኛ ጠቀሜታ አለው። እርሶን የምንጠይቅበት ምክንያት ጉዳዩ በቀጥታ ስለሚመለከትዎ አስተያየትዎ ሌሎች ሰዎችን ለማሳደስ አስተያየት ጋር ተደምጮ ሪፖርት የሚዘጋጅ ሲሆን የእርሶዎ በዚህ ጥናት መሳተፍም ሆነ ምን እንደተናገሩ የሚያውቅ ሰው አይኖርም። ምላሽ መስጠት የማይፈልጉት ጥያቄ ሲኖር አለመመለስን መጠይቁን በፈለጉበት ቦታ ማቋረጥ ሲፈልጉ ማቋረጥ ይችላሉ። ስለዚህ ይህንን መጠይቅ በተዋናይነት በመመለስ ለሚያደርጉት ትብብር አዴናቆቻችን ከፍ ያለው።

የዋና ተመራማሪ ስም፡- አይንአዲስ አስራት የአድቫይዘር ስም - አቶ ጋሻዬ አስራት የዴርጅቱ ስም፡-

አዲስ አበባ ዩኒቨርሲቲ የገንዘብ ድጋፍ ያደረገው ዴርጅት ስም፡- አዲስ አበባ ዩኒቨርሲቲ

መግቢያ

የዚህ የምርመራ ማብራሪያና የስምምነት ቅጽ አላማ አሁን እርስዎ እንዲሳተፉበት የምንጠይቅበትን የምርመራ ጥናት ምንነት ማብራራት ነው። በዚህ ምርመራ ፕሮጀክት መሳተፍ ከመወሰዎ በፊት ይህንን የማብራሪያ ቅጽ በጥንቃቄ በማንበብ ጥያቄ ካለዎት ይጠይቁ። በጥናቱ መሳተፍ ከጀመሩ በፊት በማንኛው ጊዜ ጥያቄ ካለዎት መጠየቅ ይችላሉ። የምርመራ ፕሮጀክቱ ዓላማ የዚህ ጥናት ዓላማ የእርግዝና መከላከያ የሚጠቀሙ ሴቶች የማህፀን በር ካንሰር ቅድመ ምርመራ ያላቸውን ፈቃደኝነት እና የተያያዙ ችግሮች ምን እንደሆኑ ለማወቅ የሚደረግ ጥናት ሲሆን በሀገራችን ሴቶች በከፍተኛ ደረጃ እየደገ ካለ የካንሰር አይነቶች በቀዳሚነት የሚጠቀስ ነው። ነገርግን በዚህ ሁኔታ የቅድመ ምርመራውን አገልግሎት የሚያገኙ ሴቶች ቁጥር ከዚህ ግባ የሚባል አይደለም። የአሰራር ሂደት በአዲስ አበባ ከተማ ባሉ ጤና ጣቢያ የእርግዝና መከላከያ ለሚጠቀሙ ሴቶች የማህፀን በር ቅድመ ምርመራ ፈቃደኝነትን በተመለከተ የሚደረግ ጥናት ሲሆን በዚህ ጥናት ውስጥ ለመሳተፍ

ከተስማሙ ስምምነቱን በደንብ መረዳትና ስምምነትዎን መግለፅ ይገባዎታል።ከዚህ በመቀጠል በጥናቱ መረጃ ሰብሳቢዎች ለሚጠይቁት ጥያቄ እንዲ መልሱ ፈቃደኛነቶች ይጠየቃሉ።በዚህ ጥናት በመሳተፍዎ ምንም አይነት ስጋት (ችግር) አያጋጥምዎትም።ጥቅሞች በዚህ ጥናት በመሳተፍ የተለያዩ ጥቅም አያገኙም ነገር ግን የእርሶ በጥናቱ መሳተፍ የማህፀን በር ካንሰርን ለመከላከል ከሚሰጠው ጥቅም እንዲሁም ያለትን ችግሮችን ለማወቅ ይረዳል።የሚገናኙባቸው ሰዎች ይህ ጥናት የጥናቱ ተሳታፊዎች ከጉዳት መጠበቃቸውን የሚያረጋግጠው ከአዲስአበባዩኒቨርሲቲ በሚገኘው ኮሚቴ ታይቶ ዴጋፍ አግኝተዋል።በጥናቱ ዙሪያ ማንኛውም ጥያቄ ካሎት የሚከተለትን ሰዎች በሚፈገጉ ጊዜ ማነጋገር ይችላሉ።

1አይንአዲስአስራት.፤አዲስ አበባ፣ስሌክቁጥር Tel: +251-912-44-29-64 ኢሜል Aynadisasrat@gmail.com

Annex V የስምምነት መዋዋያ ቅጽ

በዚህ ጥናት ላይ ለመሳተፍ ፍቃደኛ ነዎት

1. አይደለሁም (አመሰግናለሁ)

2. አዎ

ስምምነት ከላይ የጥናቱ አላማ፣ ጥቅሙ፣ ጉዳቱ እንዲሁም ሚስጥራዊነቱ በሚገባኝ እና በምረዳዉ ቋንቋ ተገልጾልኛል። በተጨማሪም በጥናቱ ላይ ለመሳተፍ ብስማማም እንኳን ምንም አይነት ማብራሪያ መስጠት ሳያስፈልገኝ በፈለኩት ጊዜ አቋርጬሜድ እችላለሁ። በዚህ ጥናት ላይ ተሳትፎዬ በፍላጎት ላይ የተመሰረተ ነዉ። በዚህ ጥናት ላይ ለመሳተፍ ተስማምቻለሁ።

ፊርማ ----- ቀን-----

(መረጃ ሰብሳቢ) ፊርማ----- ቀን-----

(ጥናት አድራጊ)

Annex 4. Amharic Version Questionnaire

ተ.ቁ	መጠይቅ	መልስ	ዝላል
101	እድሜዎ ስንት ነው?	ዓመት	
102	የሚከተሉት ሃይማኖት ምን ድንገት ነው?	ኦርቶዶክስ.....1 ፕሮቴስታንት.....2 ካቶሊክ.....3 ሙስሊም.....4 ሌላ ከሆነ ይጥቀሱ.....98	
103	የትምህርት ደረጃዎ	ማንበብና መጻፍ የማይችል.....1 ማንበብና መጻፍ ብቻ.....2 መጀመሪያ ደረጃ ትምህርት.....3 ሁለተኛ ደረጃ ትምህርት.....4 ዲፕሎማ.....5 ዲግሪ.....6 ከዲግሪ በላይ.....7	

104	የእርስዎ የስራሁኔታ ምንድን ነው?	ተማሪ.....1 ነጋዴ.....2 የመንግስት ሰራተኛ.....3 መንግስታዊ ያልሆነ ድርጅት ውስጥ ተቀጣሪ.....4 የቀንስራ.....5 ስራ የሌለው.....6 ሌላ ከሆነ ይጠቀሱ.....98	
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105	የትዳር አጋርዎ የስራሁኔታ ምንድን ነው?	ተማሪ.....1 ነጋዴ.....2 የመንግስት ሰራተኛ.....3 መንግስታዊ ያልሆነ ድርጅት ውስጥ ተቀጣሪ.....4 የቀንስራ.....5 ስራ የሌለው.....6 ሌላ ከሆነ ይጠቀስ.....98	
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106	የትዳር አጋርዎ የትምህርት ሁኔታ እንዴት ነው?	ማንበብናመጻፍየማይችል.....1 ማንበብናመጻፍብቻ.....2 መጀመሪያደረጃትምህር.....3 ሁለተኛደረጃትምህርት.....4 ዲፕሎማ.....5 ዲግሪ.....6 ከዲግሪበላይ.....7	
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ክፍል 2: የስነ ተዋልዶ ጤናን የተመለከተ መጠይቅ

201	ግብረ ስጋ ግንኙነት የመጀመሪያ ግዜ ማዳረግ ሲጀመሩ እዴ ማዳደር ስንት ነበር?	ከ16 በታች ከ16 በላይ
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202	ከአንድ በላይ ሰዎች ጋር የግብረሰጋ ግንኙነት አድርገዋል?	1. አዎ 2. የለም		
203	ከቤተሰብዎ መካከል የማህጸን በር ካንሰር ያለበት ሰው አለ?	1.አዎ 2.የለም		
204	እስከ አሁን ድረስ የአባላዘር በሽታ ታመዉ ያዉቃሉ?	1. አዎ 2. አይደለም		
205	የእርግዝና መከላከያ ይጠቀማሉ	1.አዎ 2.አይደለም		
206	የትኛዉን የእርግዝና መከላከያ መንገድ ነዉ የሚጠቀሙት	1. በእየቀኑ የሚዋጥእንክብሌ 2. በመርፌ የሚሰጠዉን 3. በክንድ የሚቀመጠዉን 4. ሉፕ 5. ሌላ -----		
207	ከተራቁጥር 206 1ኛዉን መንገድ የሚጠቀሙ ከሆነ ለምን ያህል አመት ተጠቀሙ?	-----		

208	ስንት ልጆች አለዎት	1. 0 2. 1 3. 2_4 4. 5+	
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ክፍል 3

በማህፀን ጫፍ ካንሰርና በማህፀን ጫፍ ካንሰር ቅድመ ምርመራ የእርግዝና መከላከያ የሚጠቀሙ ሴቶች ያላቸውን ግንዛቤ ለማጥናት የተዘጋጀ መጠይቅ

ተ.ቁ	መጠይቅ	መልስ	ዝላል
301	የማህፀን ጫፍ ካንሰር መከሰት ዋነኛ ምክንያት የቱ ነው?	ቫይረስ.....1 አላውቅም.....2 ሌላ ምክንያት.....3	
302	የማህፀን ጫፍ ካንሰር አጋላጭ መንገዶች አሉት?	አዎ.....1 አይደለም.....2	
303	የማህፀን ጫፍ ካንሰር ሊከላከሉት የሚችሉት በሽታ ነው ብለው ያስባሉ?	አዎ.....1 አይደለም.....2	

		አላዉቅም.....99	
304	ከአንድ በላይ የግብረ ስጋ ግንኙነት መፈጸም የማህጸን ጫፍ ካንሰር አጋላጭ መንገድ ነው?	አዎ.....1 አይደለም.....2 አላዉቅም.....99	
305	እድሜ ለአቅመ ግብረ ስጋ ግንኙነት መፈጸም ሳይደርስ ግንኙነት መፈጸም ለማህጸን ጫፍ ካንሰር አጋላጭ መንገድ ነው?	አዎ.....1 አይደለም.....2 አላዉቅም.....99	

ክፍል 4:ስለላማህጸን በር ነቀርሳ አሳሳቢነት ወይም ክብደት ያለውን ግንዛቤ የሚለከት መጠይቅ

401	በማንኛውም የመዉለዴ እዴሜ ክልል ያሉ ሴቶች ለማህጸን በር ነቀርሳ የተጋለጡ ናቸው?	1. እስማማለሁ 2. አልስማማም		
402	እንደ ማንኛውም ሴቶች እርሶዎ የማህጸን በር ነቀርሳ የተጋለጡ ነዎት?	1. እስማማለሁ 2. አልስማማም		
403	የማህጸንበርነቀርሳ የሚያጋጥመዉ እዴሜያቸዉ >50 ያሉ ሴቶች ነው?	1. እስማማሁሁ 2. አልስማማም		

404	የማህጸንበርነቀርሶ እንደላልቹ ነቀርሶዎች ከባድ አይሆንም	<ol style="list-style-type: none"> 1. እስማማለሁ 2. አልስማማም
405	በማህጸንበርነቀርሶምክንያት የሚመጣሞትንሽነጢ	<ol style="list-style-type: none"> 1. እስማማለሁ 2. አልስማማም
406	በማህጸንበርነቀርሶከባዴና በህይወት ላይ አደጋ ያስከትላል	<ol style="list-style-type: none"> 1. እስማማለሁ 2. አልስማማም

ክፍል 5. የእርግዝና መከላከያ ለሚጠቀሙ ሴቶች ስለ የማህፀን ጫፍ

ካንሰር ቅድመ ምርመራ ለማድረግ ያላቸውን ፍላጎት ለማጥናት የተዘጋጀ መጠይቅ

ተ. ቁ	ጥያቄ	መልስ	ዝ ለ ል
501	የማህፀን ጫፍ ካንሰር በግዜ ወይም ቶሎ መኖሩን ማወቅ ጠቃሚ ነው ብለው ያስባሉ?	አዎ.....1 አይደለም.....2 አላውቅም.....99	
502	ከዚህ በፊት የማህፀን ጫፍ ካንሰር ቅድመ ምርመራ ለማድረግ እንዳለ ብዎ የነገሮት ሰው አለ?	አዎ.....1 የለም.....2	
503	የማህፀን አከባቢ ምርመራ ለማድረግ ፍቃደኛ ነዎት?	አዎ.....1 አይደለሁም.....	
504	የማህፀን ጫፍ ካንሰር ቅድመ ምርመራ ለማድረግ ፍቃደኛ ነዎት?	አዎ.....1 አይደለሁም.....2	
505	ቅድመ ካንሰር ምርመራው ነፃ ቢሆንና ክፍያ ለማድረግ የሚጠበቅ መከላከያ	አዎ.....	

	<p>መስጫ ጋር ቢጣመር የቅድመ ካንሰር ምርመራውን ያደርጋሉ?</p>	<p>.....1 አይደለሁም.....2</p>	
506	<p>የማህፀን ጫፍ ካንሰር ቅድመ ምርመራው በአከባቢዎ ጤና ተቋም ቢኖር ምርመራውን ያደርጋሉ?</p>	<p>አዎ.....1 አይደለሁም.....</p>	

ጊዜዎትን ስለሰጡኝ እና በቃለመጠይቁ ስለተሳተፉ አመሰግናለሁ።

Declaration:

I, the under signed, declared that this is my original work and has not presented in this or any other University and all sources of materials used for this thesis have been duly acknowledged.

Name: Aynadis Asrat

Signature: _____

Date: _____

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This thesis work has been submitted for examination with my approval as university Advisor

Name: Dr.Demeke Assefa

Signature: _____

Date: _____

Name: Mr Gashye Asrat (Msc, PhD Fellow)

Signature: _____

Date: _____

Place: Addis Ababa University, school of public health

Annex VII

Curriculum Vitae (CV)

1. Personal Background

Full name: Aynadis Asrat

Sex: Female

Date of birth: 24 June 1980E.C

Place of birth: Amhara Regional State, North Shoa Zone, D/Birhan Town

Nationality: Ethiopian

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2. Educational Background

- Sep 2019- up to now: Attending MPH (Health system management) in Addis Ababa University, Ethiopia.

Level of Education Place

Primary School

- Agaro Primary School in Jimma Agaro

Junior Secondary School

- Akaki Adventist Junior Secondary School in Addis Ababa

Higher Education

- Kea-med medical University collage 2010-2013 Addis Ababa University 2019-present

3. Educational Qualification

BSc in Nursing and from kea-med University college in 2013.

4. Working experience Four year in Saint Paul's millennium medical college in Nursing.