

ADDIS ABABA UNIVERSITY COLLEGE OF HEALTH SCIENCE

SCHOOL OF PUBLIC HEALTH



ASSESSMENT OF CERVICAL CANCER SCREENING UPTAKE,
ACCEPTABILITY AND ASSOCIATED FACTORS WITH “SEE AND TREAT
APPROACH” AMONG WOMEN OF AGE 30-49 YEARS OLD IN GONDAR
NORTH WEST ETHIOPIA 2018/19 G.C

BY: ALEMNEW DESTAW (BSC)

A RESEARCH THESIS TO BE SUBMITTED TO DEPARTMENT OF
SCHOOL OF PUBLIC HEALTH, ADDIS ABABA UNIVERSITY IN PARTIAL
FULFILLMENT FOR THE REQUIREMENT FOR MASTERS OF PUBLIC
HEALTH IN EPIDEMIOLOGY AND BIOSTATISTICS

OCTOBER 2019 G.C

ADDIS ABABA, ETHIOPIA

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APPROVED BY EXAMINING BOARD

I hereby, certify that I have read and evaluated this topic entitled cervical cancer screening Uptake, acceptability and associated factors among women of age 30-49 years old in Gondar North west Ethiopia which was prepared under my guidance. I recommend it to be submitted as fulfilling the thesis requirement.

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As a member of board examiners of MPH thesis open defense examination I certify that I have read and evaluate the thesis and examine the candidate Alemnew Destaw. I recommend that the thesis be accepted as fulfilling the thesis requirement for degree of masters in epidemiology and Biostatistics.

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Acknowledgement

Firstly, I would like to forward my deepest gratitude to the School of Public Health College of health science of Addis Ababa University for all opportunity I have got. I would also like to express my deepest gratitude to my advisors Mr.Muluken Gizaw and Mr.Wondimu Ayele for their continuous assistance, constructive suggestions and comments starting from proposal development to the end work of this research. I would also like to acknowledge Amhara Health Biro, Gondar town health administration and health facilities underneath the town for providing necessary information and cooperation during the study process. I also grateful for data collectors as well as study participants for their valuable time and their contribution of the study.

Abbreviations and Acronyms

AAU.....	ADDIS ABABA UNIVERSITY
EMOH.....	ETHIOPIAN MINISTRY OF HEALTH
HBM.....	HEALTH BELIEF MODEL
HIV.....	HUMAN IMMUNE DEFICIENCY VIRUS
HPV.....	HUMAN PAPILLOMA VIRUS
LEEP.....	LOOP ELECTRICAL EXCISION PROCEDURE
OPD.....	OUT PATIENT DEPARTMENT
PI.....	PRINCIPAL INVESTIGATOR
SAT.....	SEE AND TREAT APPROACH
SPH.....	SCHOOL OF PUBLIC HEALTH
SVA.....	SINGLE VISIT APPROACH
VIA.....	VISUAL INSPECTION WITH ACETIC ACID
WHO.....	WORLD HEALTH ORGANIZATION

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Abstract

Background: Although cervical cancer is preventable, screening coverage in Ethiopia is too low. Socio demographic, individual related, health facility and accessibility factors were identified barriers of cervical cancer screening. However study on cervical cancer screening uptake and acceptability has not well documented in Ethiopia.

Objective: To assess cervical cancer screening uptake, acceptability and associated factors with “see and treat approach” among women of age 30-49 years old in Gondar town public health facilities North West Ethiopia from December to June 2019 E.C

Method: A facility based cross sectional study was conducted from December to May 2019 G.C at public health institutions in Gondar town Northwest Ethiopia. Women who visited public health facilities were advised for VIA. Uptake of screening was recorded at each screening sites. Exit interview was conducted to determine acceptability after the screening procedure. The total sample size for the study was 493. Consecutive sampling method was applied to select study participants. Crude and adjusted OR was calculated to determine statistical association. P value < 0.05 was used to select and transfer variables into multivariable logistic regression to determine predictors of cervical cancer screening uptake.

Result: Out of 464 women advised for screening, only 76 (16.4%) were screened and out of 76 screened women 44 (57.9%) accepted VIA test. Educational status ($P=0.003$), Knowledge status ($AOR=8.4, 95\%CI(3.33, 21.21)$), Perceived susceptibility ($AOR=6.5, 95\%CI(2.72, 15.51)$), Perceived barrier ($AOR=6.4, 95\%CI(2.30, 17.80)$), Cues to action ($AOR=4.6, 95\%CI(1.86, 11.32)$), Perceived self-efficacy ($AOR=5, 95\%CI(2.14, 11.73)$) and Ever been recommended for screening by health worker ($AOR=2.7, 95\%CI(1.15, 6.51)$) were significantly associated with the screening uptake.

Conclusion: The actual VIA cervical cancer screening uptake for the offer was measured to be very low among women in Gondar public health facilities despite more than half of screened women accepted the VIA test which uses “see and treat” approach. There is a need to increase awareness regarding VIA cervical cancer screening for those women eligible for screening at health facilities and to the community so as to increase VIA screening uptake and acceptability.

Keywords: Visual Inspection with Acetic acid, cervical cancer, screening, uptake, acceptability Gondar, Ethiopia

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1. Introduction

Cervical cancer is the fourth most commonly diagnosed cancer among females with an estimated 570,000 new cases and 311,000 deaths worldwide(1) and more than 85% of this occurred in developing countries(1)The highest incidence rates are in Southern, Eastern, and Western Africa as well as South-Central Asia and South America (1). In Ethiopia, cervical cancer becomes the 2nd leading cause of death among females with an estimated 6294 new cases and 4884 deaths in 2018(1).

These disproportional high burden in developing countries are due to lack of access to effective cervical cancer screening and to services that facilitate early detection and treatment(2). Poverty, low education and health Care access, life in rural areas, low screening coverage and delayed treatment magnifies the problem (3).Although cervical cancer is easily preventable, more than 90% of women in these settings have never had screening for cervical cancer even once in their life time(4).

WHO develops a comprehensive approach to prevention and control of cervical cancer to identify opportunities for effective interventions(5).HPV vaccines such as the bivalent (Cervarix),for prevention of HPV16 and 18 infections and the quadrivalent (Gardasil) for HPV 6,11,16 and 18 (6, 7) are available. Adolescent girls of age 9 – 13 years are the target for HPV vaccinations. So far, HPV immunization has not been introduced in Ethiopia(8).Currently HPV DNA-based tests are also available and the preferred screening test which even recommended for developing countries although extensive laboratory is requirement(9).

Simplified “screen and treat” approaches for secondary prevention of cervical cancer have been developed for field adoption in resource-constrained settings where implementation and expansion of cytology (Pap smear)-based screening programs have proven unsustainable and human papillomavirus (HPV) testing is not yet available (9,10). The program targets women of age 30 - 49, unless HIV-positive (8).After a woman counseled of SAT programs, acetic acid (3%–5%) is applied to the cervix. The cervix is visually inspected, if aceto white lesions are noted, she is offered immediate treatment with cryotherapy (5). Cryotherapy and LEEP are the recommended available treatment options for precancerous lesions. With cryotherapy, treatment is to be offered without requiring biopsy diagnosis (screen and treat) in a SVA whenever

feasible. After the procedure, the women is recommended for Follow-up screening with VIA in one year (8).

In Ethiopia there was no routine cervical cancer screening program and treatment for pre cervical lesions until Addis Tesfa project opens up the first cervical cancer prevention program that uses SVA in selected 14 institutions in 2009 (10).Currently Visual inspection with acetic acid acid (VIA) screening of cervical cancer is the recommended method in Ethiopia (8).The Ethiopian FMOH has developed a national cancer control plan implemented from 2016–2020 considering cervical cancer a priority cancer for intervention. The plan targeted to launch HPV vaccination demonstration program, and achieve at least 80 % coverage of girls within the target population and 80-percent coverage of VIA among target women by 2020(11).However screening coverage in Ethiopia is too low and it is only about 2.9% in 2017 (12). According to Ethiopian ministry of health currently there are more than 214 available health facilities providing cervical cancer screening using VIA service in Ethiopia. However despite high cervical cancer burden and the efforts being taken by EMOH screening uptake (13-16) and acceptability(17) is documented to be low.

1.1 Statement of the problem

Cancer of the cervix, mainly caused by HPV, is a major public health problem around the globe and ranks fourth as the most frequent cancer among women's globally(1).Cervical cancer is preventable and treatable forms of cancer if early detected and treated (18),however in developing countries including Ethiopia the disease is diagnosed at advanced stage which reduces the chance of survival and treatment outcome (18, 19).Screening coverage in developing countries is very low ranging from 2.0% to 20.2% in urban and 0.4% to 14.0% in rural areas(20).

Good knowledge of cervical cancer and preventive health-seeking behavior can have a great impact on cervical cancer incidence and mortality(21).Women with high awareness level on cervical cancer and screening were agreed for the screening test in Nigeria(79.8%)(22).However high proportion of women were willing for the screening test (84%) despite their poor knowledge in Mozambique(23).

Previously conducted acceptability studies in Africa have shown that acceptability of cervical cancer screening using VIA is high (24, 25).However screening uptake remains low (17, 22, 26).Anticipated high cost of the test, religious denial, husband approval, anticipated long waiting time and fear of test outcome were reasons for screening test refusal(22).Health Facility factors determines women's acceptability to screening service (27).Training experience of the provider(28),Private screening room and a female provider determines women's satisfaction of screening service(6, 28, 29).Long delays in the screening process results a women to be reluctant to follow-up or recommend the procedure to their friends(28). Privacy, discomfort ,pain, embarrassment, exposing privet body parts to male health provider ,and perceived low quality of services were factors for screening acceptance(30).

According to the 2018 report ,In Ethiopia over 6294 and 4884 women's infected and died of cervical cancer every year respectively, and ranked as the second most common type of cancer of women (1).In order to tackle the high burden of cervical cancer the so called "See and treat approach" screening method has been implemented and the evaluation of success of this screening program among HIV positive women between 2010 and 2014 counseled for the service suggested the screening and treatment program was feasible in Ethiopia (10).

A study conducted in Addis Ababa Ethiopia on HIV positive women's found that screening acceptance (24.8%) and self-reported screening uptake (11.5 %) was low. Assuming time consuming of the test, fear of the test result and anticipated high cost were the reason of screening test refusal(17).Another study in Addis Ababa revealed that screening uptake rate(10.8%) was low even though 86.2% of them were willing to be screened if given free of cost(31).A study in Gondar on HIV positive women's found that the life-time screening uptake was low (10%)(13).Another study in Gondar hospital on HIV positive women's found that knowledge(21.2%) and uptake(23.5%) was found to be low (32). A study in Southern Ethiopia found that 85.8% of study participants had no intention for cervical cancer screening ; only 14.2% of women reported health seeking behavior for cervical cancer screening (33).

So far study conducted on acceptability of cervical cancer screening in Ethiopia was limited to HIV positive women(17).While study on cervical cancer screening uptake was focused on age group other than the recommended age groups for VIA by WHO and EMOH (14), and limited to HIV positive women in the hospital setting only(13, 32).Furthermore uptake studies in Ethiopia were based on self-reported past screening experience(13, 14, 16, 32, 34).However self-reported screening measurement was documented to be biased by other studies (35-37). In this study uptake was measured from the same institution after active enrollment of eligible participants for the screening service. To date there is limited study on cervical cancer screening uptake and acceptability among general population eligible for VIA screening by including women's from public health centers. Moreover to the knowledge of the researcher no study measure screening uptake based on active recruitment for the service so far in Ethiopia. Based on this gap study on uptake and acceptability among age eligible women from general population and factors associated is needed. So the purpose of this study is to assess cervical cancer screening uptake, acceptability and associated factors with "see and treat approach" in Gondar town public health institutions North West Ethiopia.

1.2 Significance of the study

The national cancer control plan has been developed for preventing cervical cancer morbidity and mortality by enhancing cervical cancer screening coverage of eligible women's targeted to achieve by 2020(8). Cervical cancer is easily treatable if detected early by screening. Therefore efforts are needed to ensure screening age eligible women to undergo the screening test from the available screening service which uses "see and treat approach" so as to keep track of the growing problem of cervical cancer burden in Ethiopia. The findings from this study will provide information on factors that affect cervical cancer screening uptake and acceptability of the screening services among screening age eligible women in the study area, and the findings will contribute programs to develop interventions directed against factors that hinder screening age eligible women from undergoing cervical cancer screening tests. The finding of this study will also lead to recommendations that will enable the Ethiopian ministry of health to improve cervical cancer screening programs in Ethiopia with the aim of increasing uptake of screening by targeted age eligible women for screening tests, thereby decreasing mortality and morbidity of women due to cervical cancer in Ethiopia. The study findings will also be important for researchers as a base line for future research in this area.

2. Literature review

2.1 Overview of cervical cancer screening

The cervix is the lower, narrow end of the uterus. The cervix connects the vagina (the birth canal) to the upper part of the uterus. Cervical cancer is the easiest and the only gynecologic cancer to prevent with regular screening tests and follow-up. It is highly curable when found and treated early. The human papillomavirus (HPV) is the main cause of cervical cancer. HPV is a common virus that is passed from one person to another during sex. Most sexually active people will have HPV at some point in their lives, but few women will get cervical cancer.(21).

Screening services may be provided either as organized or opportunistic services or a combination of both. It is generally accepted that organized screening is more cost-effective than opportunistic screening. ‘Screen and treat’ – using a screening test that gives immediate results (like visual methods, VIA) followed by “on the spot” treatment (e.g. using cryotherapy) of detected lesions. This Strategy reduces the number of clinic visits required for screening and treatment make it easier for women and reduce program costs(5).

In developing countries, Visual inspection with acetic acid (VIA) is recommended as an alternative screening approach to the Pap smear(28). VIA gives immediate results and can be linked to cryotherapy in a relatively low-cost single-visit “see-and-treat” approach. Cryotherapy based treatment of eligible VIA-positive lesions has been shown to be safe, feasible, acceptable, and effective in treating appropriate precancerous lesions(38).Cervical cancer screening is essential to ensure early detection of pre-cancer lesions in order to reduce the occurrence and mortality due to cervical cancer in the population(39).

2.2 Uptake and Acceptability of cervical cancer screening

A study conducted in Nigerian women found that 79.8% of the women agreed to do screening tests. Uptake was reported to be very low though (9.4%). Anticipated high cost of the test (35.2%), religious denial (14.0%), husband approval (12.4%), anticipated long waiting time (12.7%), pregnant/recently delivered (10.7%) and fear of test outcome (4.2%) were the most common reason for refusal(22). In Kenya a study among 387 women advised by their health providers to go for screening, only 179 (46%) reported cervical cancer screening; fear of

excessive pain or bleeding, lack of proper communication on screening procedures and long waiting time was mentioned as the reason for low uptake of the service(26).

Cervical cancer screening remains difficult for many women's due to various factors such as discomfort during VIA test procedures, pain during the procedure, having a burning sensation after the application of acetic acid and fear of the result (25).A study in Uganda found that fear of the result, Lack of time for screening, and anticipated pain from the procedure were the reason for screening non acceptance(12).A study conducted in Addis Ababa, Ethiopia found that those who were not willing to participate in screening was due to assuming the test is time consuming, fear of being positive, and high cost of the test (17). Another study in Ethiopia conducted among HIV positive women's found that most of participants were willing to be screened if the screening service were free of cost (31).However study in Kenya found that increased screening behavior was associated with high knowledge scores, but not with screening awareness or feeling at risk (40).

2. 3. Factors affecting cervical cancer screening attendance

2. 3.1 Socio demographic factors

Educational status : A study conducted in Saudi Arabia found that women with low educational level were associated with perceived susceptibility for developing cervical cancer(41). Other studies showed that women with better educational level were more likely for uptake of cervical cancer screening service(17, 26),meanwhile highly educated women reported to have low screening uptake in another study(16) therefor other factors need to be considered.

Age Group :A study done in mekele Ethiopia found that increased Screening uptake was observed among women's of age group of 30-39(16).A study conducted in Dessi northeast Ethiopia found that screening uptake was higher in age group of 25–34 and 34–49 years(42).However a study in Tanzania found that screening attendance was high among age group of 20-29 and decreases as age of the women increases(43) while a study in Kenya found that women of older age groups were more likely to have perceived susceptibility for cervical cancer than younger groups(44)

Marital status: A study conducted in Kenya found that married women were more likely to have perceived risk of cervical cancer than those who were not married(44). Another study conducted in Jamaica found that married women were two times more likely for uptake of cervical cancer screening than single women(45).

Occupational status: A study done in Kenya found that those women who were self-employed were more likely for cervical cancer screening uptake than those who were not(46). A study conducted in Addis Ababa found that women who were employed were found to have good cervical cancer knowledge than those women who were not employed(47).

Number of children: A cross sectional study conducted in Kurdish Women found that women who had two or more children had more likely to be screened (48). Another study conducted on HIV positive women in Gondar found that those who had children had more likely to be screened(49)

2.3.2. Knowledge on cervical cancer and cervical cancer screening

A study conducted in Nigeria found that those who had high awareness level regarding cervical cancer screening (91%) were agreed to undergo of cervical cancer screening (71.4%), However in this study the actual uptake of cervical cancer screening was documented to be low(14.1%)(22). A study conducted in Morocco found that very high acceptability of cervical cancer screening among study participants(94.5%) despite their poor knowledge of cervical cancer and screening(19.6%)(25). A study conducted in Jima Ethiopia found that knowledge level for HPV and its vaccine was low and their willingness for accepting HPV vaccine for self is low (49.4%)(50). Another study conducted in southwest Ethiopia found that despite good knowledge of cervical cancer and cervical cancer screening uptake remains low(34).

2.3.3 Women's perceptions on cervical cancer and screening using HBM

Perceived susceptibility: The health belief model predicts that women will be more likely to adhere to the cervical cancer screening recommendation if they felt that they were susceptible to cervical cancer (51). A study conducted in Kenya found that women's who had perceived risk of cervical cancer had higher cervical cancer screening uptake (52). Another study in mekele,

Ethiopia confirmed that study Participants who had perceived susceptibility to develop cervical cancer were 2 times more likely to undergo screening than those who not(16).

Perceived severity: A facility based cross sectional study conducted in Kenya found that those who have perceived cervical cancer as a serious disease and believe that could put them in danger had higher screening uptake than those who do not(40).However a study conducted in Nigeria found that despite a very high level of perceived severity of cervical cancer(90.1%) screening uptake was not as high as the participants perception(53) .A study conducted in Southern Ethiopia found that about 30.4% out of 660 women had high perceived severity of cervical cancer(54).

Perceived benefits: A study conducted in Tanzania reported that women who believed that cervical cancer could be prevented and improve survival were 10 times more likely to be screened than those who do not (43).However a study conducted in Botswana found that there is no significant difference in the likelihood of screening uptake among those who have high perceived benefit and not(55).

Perceived barriers: Previous studies have found that barriers for cervical screening among women's are lack of knowledge, feeling healthy, lack of time, fear of the result, procedure is painful, embarrassment and financial constraints(16, 31).

Cues to action: A study in Uganda found that increased cervical cancer screening uptake was observed among women's who were attended the child welfare clinic (40).Another study conducted in Nigeria found that women's attending antenatal care clinics had higher screening uptake because of the education they received their(56).However a study in Kenya reported that increased screening uptake was observed among women who attended the child welfare clinic(40).

Perceived self-efficacy: A study conducted in Nigeria reported that the confidence of women's among those of received education from their nurses resulting increased screening uptake(53).This is supported by a another study in Nigeria which reported that from those self-reported screened women's ,about 76.5% of screened women reported having regular screening pattern at least once every 3 years(56).

Health facility factors

Studies showed that those women ever been recommended by a health worker for cervical cancer screening were more likely to uptake the screening test than those who had no recommendation for it(57, 58).A study in Uganda found that those women knowing where screening tests were offered were 6.2 times more likely to uptake cervical cancer screening test than their counterparts(58).In Tanzania, women who resided within 5 km distance from the nearest cervical cancer screening facility were more likely to have had screening uptake compared to those who lived further away. A study conducted in Kenya found that those who visited the health facility for child welfare clinic were more likely to uptake cervical cancer screening than their counterparts(40).In another study health Facility conditions influences women's satisfaction and willingness towards screening service(27).Training experience of the provider determines the kind of relationship to be there with those women's seeking screening service. Poor training experience of the provider affects women's satisfaction of the service they received(28).A study conducted on women's satisfaction level with screening service has shown that a private screening room and a female provider in the health facility helps to improve women's satisfaction with the service(6, 28, 29).Long delays in the screening process can make women reluctant for follow-up, return for future screenings, or recommend the procedure to their friends(28). Privacy, discomfort, pain, embarrassment, exposing privet body parts to male health provider ,and perceived low quality of services were factors for screening acceptance(30, 59).A study conducted in Bahrain women showed embarrassed were very high among women examined by male screening provider(60).

Conceptual Framework

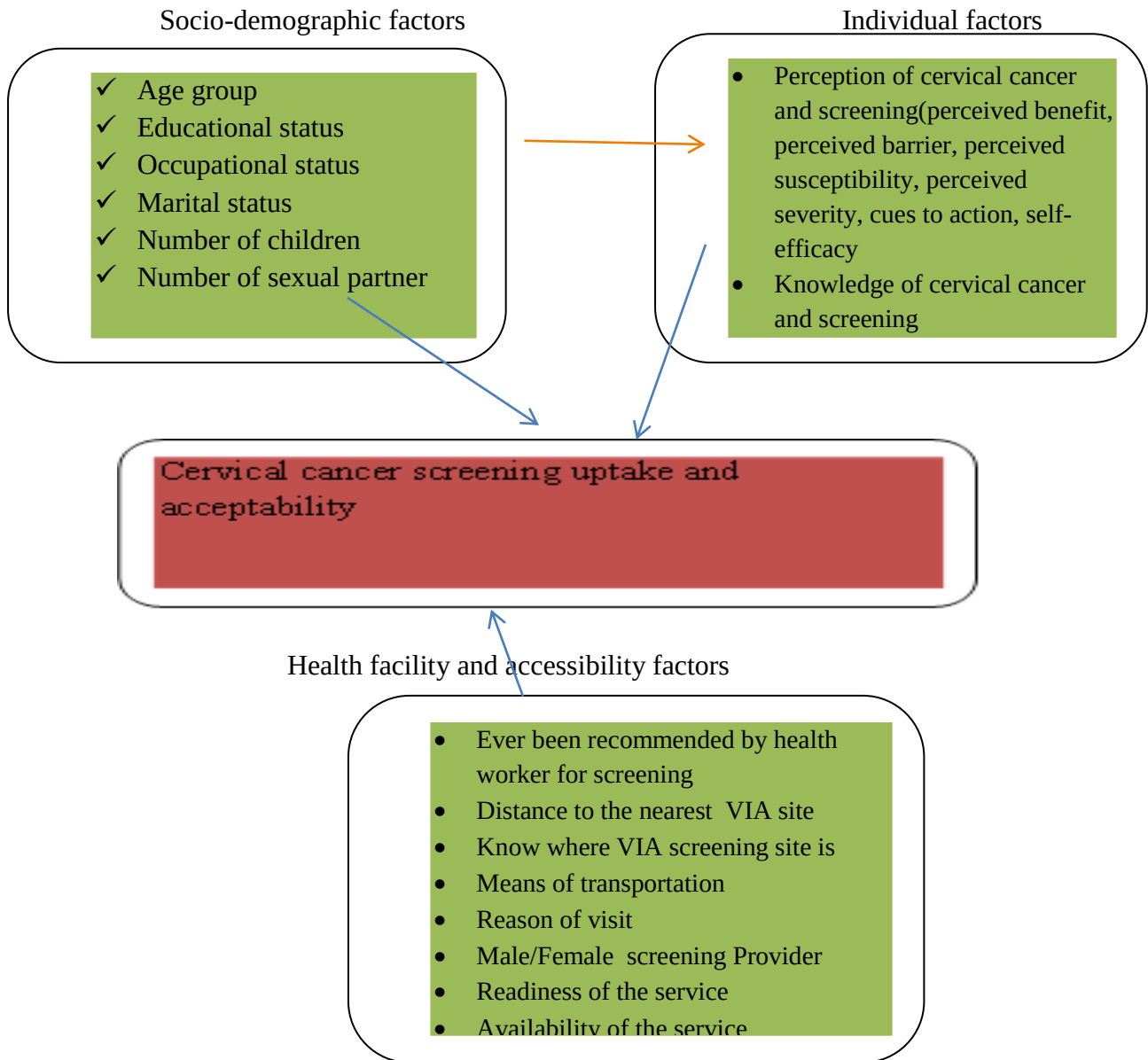


Figure 1: Conceptual framework for the association of factors with screening uptake and acceptability developed after reviewing different literatures.

3. Objective

3.1 General objective

To assess cervical cancer screening uptake, acceptability and associated factors with “see and treat approach” among women’s of 30-49 years old in Gondar North West Ethiopia from December to June 2019 G.C

3.2 Specific Objective

1. To measure screening uptake by women 30-49 years old who agreed to undergo the screening service in Gondar hospital and public health centers in the town from December to June 2019 G.C
2. To assess acceptability of cervical cancer screening by women 30-49 years old after screening procedure in Gondar hospital and public health centers in the town from December to June 2019 G.C
3. To identify factors associated with cervical cancer screening uptake among women 30-49 years old in Gondar hospital and public health centers in the town northwest Ethiopia from December to June 2019 G.C

4. Method

4.1. Study design and setting

A facility based cross sectional study was conducted from December to January 2019 G.C at public health centers and Gondar referral hospital Northwest Ethiopia.

4.2 Study setting

The study was conducted in reproductive health services (family planning, immunization and under 5 children clinics) on 4 public health centers out of the available 8 health centers and Gondar referral hospital in Gondar town. Gondar city is found in the Amhara Regional State, 727 km away from Addis Ababa, the capital city of Ethiopia. According to the 2007 census conducted by the Central Statistical Agency of Ethiopia, Gondar has a total population of 206,987 and more than half (108,902) are females. The city has eight health centers and one university referral hospital which provides services to about 5 million people. Pre-cancerous cervical cancer screening by visual inspection with acetic acid (VIA) and cryotherapy services being conducted in the Hospital since 2013. Recently also the VIA cervical cancer screening service available in all 8 public health centers in Gondar town since 2018/19. Currently the screening service for precancerous cervical lesion using VIA is given routinely to all women free of charge in all of those VIA screening providing settings.

4.3 Population

4.3.1 Source population

The source populations were all women aged 30-49 residing in Gondar town, and who were attended for reproductive health service in public health centers and hospital in Gondar town.

4.3.2 Study population

The study populations were all women aged 30-49 who were attended for reproductive health services other than came for VIA screening, advised / linked for cervical cancer screening in public health centers and hospital in Gondar town during study period.

4.4 Sample size determination

Sample size for Objective 1: Single population proportion formula was used to assess the actual screening uptake considering the following assumptions. A 10% proportion of cervical cancer screening service uptake from facility based study conducted in Gondar hospital Ethiopia(13), and 4% margin of error and 5% level of significance (95% confidence interval) which gives 216 sample size, and when adjusted for 10% of non-response rate, the final sample size was 238.

Sample size for Objective 2: single population proportion formula was used to assess cervical cancer screening acceptability with the following assumptions: 24.8% proportion of cervical cancer screening service acceptability from previous study conducted in Addis Ababa Ethiopia (61), and 4% margin of error (was used because to increase the power and precision) and 5% level of significance (95% confidence interval) which gives 448 sample size, and when adjusted for 10% of non-response rate, the final sample size was calculated to be 493.

$$n = \frac{(Z_{\alpha/2})^2 p(1-p)}{d^2}, \text{ Where } n = \text{sample size required, } \alpha = \text{Level of significance (set at 0.05),}$$

$Z_{\alpha/2}$ = a standardized normal test with α level of significant. It is equivalent with 1.96 with the corresponding 95% confidence interval

p = Expected proportion of women who practiced cervical cancer screening.

$$d = \text{Degree of precision 4\%}, n = \frac{(1.96)^2 \cdot 0.248(1-0.248)}{0.04^2} = 448$$

Estimated sample size for Objective 3: To estimate the required sample size for factors associated with cervical cancer screening uptake; double population proportion formula was used by considering the following assumptions. Proportion of cervical cancer screening among knowledgeable, and proportion of cervical cancer screening among non-knowledgeable group was 22.5% and 6.7% respectively (16). 95% confidence interval ($\alpha=5\%$), 80% Power ($1-\beta$), and 1:1 ratio of exposed to unexposed group.

$$n = \frac{Z_{\alpha/2} + Z_{\beta})^2 * (P_1(1-P_1) + P_2(1-P_2))}{(P_1 - P_2)^2}$$

$$= \frac{(1.96+0.84)^2 * 0.225(1-0.225) + 0.067(1-0.067)}{(0.225-0.067)^2} = \frac{7.848 * (0.174375 + 0.062511)}{0.024964} = 75$$

Since the calculated sample size of the 2nd objective is the largest of all, sample size for the study was 493.

4.5 Sampling Procedure

The study was conducted in public health facilities in Gondar town. Gondar referral hospital was selected purposively for the study because it was the main tertiary referral hospital for health centers and the only available hospital where VIA service is available in the town. Out of the total eight health centers from which VIA screening is available, 4 health centers (namely Teda, Azezo, Maraki and Poli) were selected using simple random sampling method. The total sample size calculated for the study was allocated proportionally to those selected public health facilities based on the previous two month patient follows up. Firstly, public health facilities providing cervical cancer screening using VIA in the town was identified, Then calculated sample size (493) was distributed proportionally to each selected Health centers and the hospital accordingly. Then a 2 month active collection of data was in place in those health centers and the hospital. Based on eligibility criteria, those women who met the eligibility criteria were approached by data collectors in the waiting area of reproductive health services as they waited to be attended by health provider. Consecutive sampling method based on inclusion criteria was applied to select study subjects coming to selected facilities until the required sample size was achieved. Demographic and other characteristics were collected by data collectors on those participants willing to participate in the study. The participants were then advised and linked to undergo VIA screening. The screening offer was conducted in the form of face-to-face health education by data collectors regarding cervical cancer and cervical cancer screening. Health education was delivered 10 to 15 minutes to each eligible participant. Number of women's aged 30-49 years who agreed to the screen were recorded and directed to the cervical cancer screening room. A unique identifier was given to those participants. Then test result was checked to determine the actual uptake of screening for those who agreed for screening offer. Exit interview was also conducted to determine acceptability of VIA screening for those who underwent screening procedure.

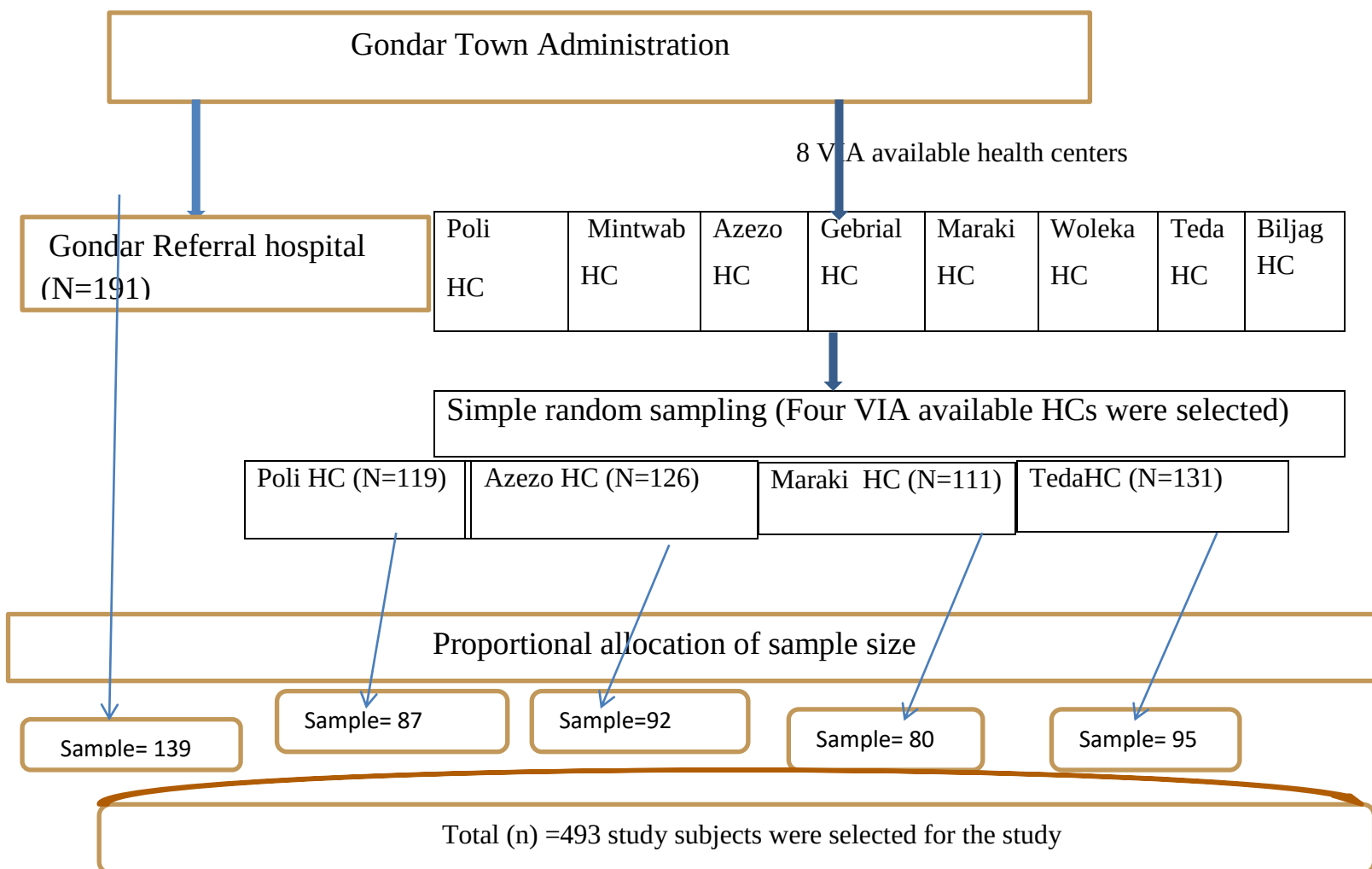


Figure 2 Schematic representation of sampling procedure in Gondar town public health facilities, Ethiopia 2018/19.

4.6 Inclusion and Exclusion criteria

4.6.1 Inclusion criteria

- ✓ Women age 30-49 years old
- ✓ Women who were seeking reproductive health services at the out-patients' department

4.6.2 Exclusion criteria

- ✓ Women who were below 30 and above 49 years old.
- ✓ Women who were critically ill and unable to respond for questioners
- ✓ Women's with hysterectomy
- ✓ Women who came for VIA service at the time

4.7 Data collection tool and procedures

Quantitative data was collected using a structured questioner consisted of closed ended questions. The questioner was developed by reviewing relevant literatures (13, 47, 62, 63) as well as from expert opinions that have knowledge and experience on the issue. The questions were written first in English and translated to the local language (Amharic). The questioner had seven parts. Part 1 on socio-demographic factors; Part 2 on knowledge of cervical cancer and screening; Part 3 on perception of women based on health belief model; part 4 questions on health facility and accessibility factors of cervical cancer screening; Part 5 on cervical cancer screening uptake and acceptability; part 6 on reasons for VIA screening test refusal and Part 7 on Experiences of women after they underwent the screening procedure.

The primary outcome variable, cervical cancer screening uptake was measured actively by checking test results as screened participants left the screening room. Secondary outcome variable, cervical cancer screening acceptability was measured using acceptability questions. Study subjects were asked whether they would undergo the same procedure in future and whether they would recommend VIA to other women.

Knowledge was measured using "yes or no" response type questions. A correct response was allocated a score of 1 while 0 for wrong answers. The scores then summed and those who scored below or above the mean categorized in to poor and good knowledge respectively. Perception on cervical cancer and cervical cancer screening was measured using likert scale items. Five

experienced data collectors were recruited and collect the data for two months after they received three days of training.

4.8 Variables

Dependent Variable: Cervical cancer screening uptake, acceptability

Independent Variables: Socio-demographic factors, Knowledge on cervical cancer and cervical cancer screening, Women's perception on cervical cancer and screening based on HBM, Health facility and accessibility factors of cervical cancer screening service.

4.9 Data quality assurance

Before data collection, the questionnaire was pre-tested on 5% of the calculated sample size among women age 30-49 years old from 2 VIA available health centers in Gondar town (Mintewab and Gebriel health centers) from which the actual study did not include. The questionnaire was modified to ensure it collects information to answer the research objectives. Data collectors were trained for 3 days prior to data collection. In addition the questionnaire was checked daily for completeness and consistency before data entry.

The reliability of the study instrument was ensured by calculating the Cronbach's alpha coefficient to measure the internal consistency of knowledge assessment and Likert scale items for HBM constructs using SPSS software version 23. For knowledge items the Cronbach's alpha of 0.821 was obtained. For perception likert scale items the Cronbach's alpha was 0.89 for perceived benefit, 0.95 for perceived susceptibility, 0.56 for perceived barrier, 0.91 for perceived severity, 0.93 for perceived self-efficacy resulting the overall cronbachs alpha 0.78 for likert scale items which was greater than 0.7 suggesting the instrument used in this study was reliable and appropriate for data collection.

With regard to the validity, content validity was ensured by focusing the questions enclosed in the questionnaire on possible factors that could affect women's decision and willingness to get screened. Construct validity was also ensured by consulted the experts who have knowledge and experience on the subject to review the questionnaire as well as a pre-test was conducted before

the actual study. Participants involved in the pre-test were asked to give feedback on any difficulties they encountered in responding to the questionnaire.

4.10. Operational definition

Knowledge: Knowledge on cervical cancer and screening was measured using 17 ‘‘yes or no’’ response type items. A correct response was allocated a score of 1 otherwise 0. The scores then summed and Women with summary score greater than or equal to the mean score and women with score less than the mean score was used to categorize good and poor knowledge respectively(31).

Perception: perceived benefit, perceived barrier, perceived susceptibility, perceived severity, cues to action, self-efficacy for cervical cancer screening were measured based on the 5-point Likert scale items ranging from strongly disagree to strongly agree. There were three Likert-scale items with a maximum score of $3 \times 5 = 15$ for perceived benefits, Five Likert scale items with a maximum score of $5 \times 5 = 25$ for perceived barriers, two likert-scale items with a maximum score of $2 \times 5 = 10$ for each of perceived susceptibility, severity, cues to action and perceived self-efficacy HBM constructs. Those who scored greater or equal and less than the mean score was used to categorize in to ‘‘high’’ or ‘‘low’’ respectively to the respective perception HBM constructs.

Acceptability: Women who are acknowledge the importance of screening for cervical cancer and have the intensions of going for cervical cancer screening and recommend to others. Those who responded ‘‘yes’’ for the question would you undergo the same procedure in the future? And would you recommend VIA to other women?(62)

Cervical cancer screening uptake: The proportion of women who attended or performed the screening test after being advised/ linked to the VIA test.

4.11 Statistical Analysis

Data was checked, cleaned and entered using epi info version 7.2 and analysis was performed using SPSS version 23. Frequencies and percentages were used to express variables under study. Bi-variable and multivariable logistic regression analysis were used to determine predictors of cervical cancer screening uptake (P value <0.2 was used as a cut off to transfer variables in to multivariable logistic regression). The regression model was first examined by goodness of fit test using Hosmer-Lemeshow test to determine whether the fitted model adequately described the survey data. The results were then adjusted for participants demographic and other characteristics. Crude Odds ratio (COR) and Adjusted Odds ratio (AOR) with 95% CI was computed along with corresponding p-value ($p < 0.05$) as cut off points for determining statistical significance with the dependent variable.

4.12 Ethical consideration

This study proposal was approved by the Research Ethics Committee (REC) and letter of approval was also obtained based on Addis Ababa University (AAU) College of Health Sciences, SPH protocol. The letter was submitted to Gondar University referral hospital and College of Health Science as well as to health centers in the town. Verbal consent was taken from those respondents who were willing to participate in the study. This study did not have any form of physical or psychological harm on study participants.

4.13 Dissemination of results

Results of the study findings were presented to Addis Ababa University (AAU) College of Health Sciences, School of Public Health. The research findings will be reviewed by peer review journals and will also be published in reputable journals

5. Result

Response Rate: From the total 493 women approached to participate in the study, 467 agreed to participate yielding a response rate of 94.7%. The analyses were limited to 464 questionnaires which had complete information. Three women withdrew before full completions of the questionnaire to go back to their home so that they could get their children for school on time.

5.1 Socio-Demographic characteristics of the respondents

The median age of respondents was 35 years ranging from minimum 30 to maximum 49 years old. The majority 223(48.1%) were in the age group of 30-34 years old. Most of the study participants 397(85.6%) were Orthodox religion followers. More than two third of respondents 374(80.6%) were urban dwellers and the rest of 90(19.4%) were rural residents. Majority of respondents 402(86.6%) were married and 35(7.3%) divorced. About 310(66.8%) respondents had no formal education. More than half of the respondents 269(58%) were house wives. The median monthly income of respondents was 1,500 ranges from 500 to 6000 Ethiopian birr. Majority of participants 189(39.2%) monthly income were 700-1400 ETB. About two third of the participants 294(63.4%) had 2 to 4 children's. Majority of study participants 299 (64.4%) had experience of one sexual partner. Regarding sero status almost all 448(96.6%) of participants had HIV sero status negative.

Table 1: Socio-Demographic characteristics of the respondents in Gondar town public health intuitions 2019 (N=464)

Variables		Frequency(n)	Percentage (%)
Age group	30-34	223	48.1
	35-39	150	32.3
	40-44	55	11.9
	45-49	36	7.7
Religion	Orthodox	397	85.6
	Muslim	66	14.2
	Protestant	1	0.2

Marital status	Single	10	2.2
	Married	402	86.6
	Divorced	34	7.3
	Widowed	11	2.3
	Separated	7	1.5
Residence	Rural	90	19.4
	Urban	374	80.6
Women educational status	No education	310	66.8
	Primary education	62	13.4
	Secondary education	57	12.3
	Tertiary education(12+)	35	7.5
Husband education(For Married only)	No education	236	50.9
	Primary education	58	12.5
	Secondary education	58	12.5
	Tertiary education(12+)	50	10.8
Occupational status	Housewife	269	58.0
	Government worker	44	9.5
	Private job	151	32.5
Income status	<700	44	9.5
	700-1400	182	39.2
	1401-2100	90	19.4
	2101-2800	50	10.8
	>2800	98	21.1
Number of children	1 children	75	16.2

	2-4 children	294	63.4
	more than 5 children	95	20.5
Number of sexual partner	One	299	64.4
	Two	153	33.0
	More than three	12	2.6
HIV status	Negative	448	96.6
	Positive	5	1.1
	do not know	11	2.4

5.2. Participants Perception based on HBM constructs

Majority of study participants 316 (68.1%) thought that early detection of cervical changes could lead to the cure of cervical cancer. In terms of perceived susceptibility items 213(45.9%) did not consider themselves that they were at risk of cervical cancer. With regard to perceived barrier items, 377(81.3%) indicated that they were not sure if it was embarrassing to have cervical cancer screening test and 365(78.7%) of participants were not sure that if cervical cancer screening was painful either. 180(38.8%) thought that they did not know where they could go if they wanted cervical cancer screening in the first place.

With regard to perceived severity items, two third of participants 310(66.8%) believed that most women with cervical cancer would die and also majority of 327(70.5%) thought that their life would change badly if they got cervical cancer. In terms of cues to action items, more than half 268(57.8%) believed they would not be motivated to have cervical cancer screening if they were recommended by health profession. With regard to self-efficacy, 182(39.2%) thought that they were not confident to have cervical cancer screening test.

Table 2: Perception of study participants based on the mean score of items of HBM constructs in Gondar public health institution 2019(N=464)

HBM constructs		Frequency	Percent
Perceived Benefit	Low	110	23.7
	High	354	76.3
Perceived Susceptibility	Low	363	78.2
	High	101	21.8
Perceived Barrier	Low	235	50.6
	High	229	49.4
Perceived severity	Low	104	22.4
	High	360	76.6
Cues too action	Low	363	78.2
	High	101	21.8
Perceived self-efficacy	Low	346	74.6
	High	118	25.4

As shown in table 2 above, study participants had high perceived benefit 356 (76.3%) regarding cervical cancer screening and also high 360(76.6%) perceived severity of cervical cancer. However majority of 363(78.2%) participants had low perceived susceptibility and about half of study participants had low perceived barrier 235(50.6%) to cervical cancer and screening. With regard to cues for action, majority 363(78.2%) of study participants had low cues for action in their environment.

5.3 Knowledge of respondents on cervical cancer and screening

As shown in figure 2 below, from a total of 17 knowledge assessment items, 383(82.5%) participants had poor knowledge score. Regarding risk factors of cervical cancer 151(32.5%) of participants know that multiple sexual partner is a risk factor for cervical cancer. Majority of study participants 381(82.1%) did not know that weakened immunity due to HIV AIDS is a risk factor for cervical cancer as 365(78.7%) of total study participants also did not know early sexual

intercourse is a risk factor for cervical cancer. Also very few participants identified HPV infection is a risk factor for cervical cancer 110(23.7%).

Regarding symptoms of cervical cancer one third 147(31.7) of study participants identified offensive vaginal discharge as a symptom for cervical cancer. Also only 92 (19.8%) of participants identified inter menstrual bleeding as a symptom for cervical cancer.

Majority of participants knew that cervical cancer is preventable 353(76.1%).About half of participants 258 (55.6%) identified screening as cervical cancer prevention method as 209 (45%) of participants did know HPV vaccine as a prevention method. Regarding treatment of cervical cancer, Majority of study participants identified cervical cancer is treatable 386 (83.2%).However only 96(20.7%) of them knew treatment methods.

Table3.Knowledge status of participants in Gondar public health facilities 2019 (N=464).

Variable		Frequency	Percent
Multiple sexual partner is a risk factor for cervical cancer	No	313	67.5
	Yes	151	32.5
Early sexual intercourse is a risk factor for cervical cancer	No	365	78.7
	Yes	99	21.3
HPV infection is a risk factor for cervical cancer	No	354	76.3
	Yes	110	23.7
HIV infection is a risk factor for cervical cancer	No	381	82.1
	Yes	83	17.9
Offensive vaginal discharge symptom for cervical cancer	No	317	68.3
	Yes	147	31.7
Inter menstrual bleeding is a symptom for cervical cancer	No	372	80.2
	Yes	92	19.8
Pain during coitus is a symptom for cervical cancer	No	370	79.7
	Yes	94	20.3
Bleeding during coitus is a symptom for cervical cancer	No	374	80.6

	Yes	90	19.4
Cervical cancer is preventable	No	111	23.9
	Yes	353	76.1
HPV vaccine is prevention method for cervical cancer	No	255	55.0
	Yes	209	45.0
screening is prevention method for cervical cancer	No	206	44.4
	Yes	258	55.6
I know screening frequency for cervical cancer	No	405	87.3
	Yes	59	12.7
Screening frequency is every 5 years	No	403	86.9
	Yes	61	13.1
Cervical cancer is treatable	No	78	16.8
	Yes	386	83.2
Surgery is a treatment modality for cervical cancer	No	364	78.4
	Yes	100	21.6
Chemotherapy is a treatment modality for cervical cancer	No	448	96.6
	Yes	16	3.4
Radiotherapy is a treatment modality for cervical cancer	No	447	96.3
	Yes	17	3.7
I know treatment methods for cervical cancer	No	368	79.3
	Yes	96	20.7

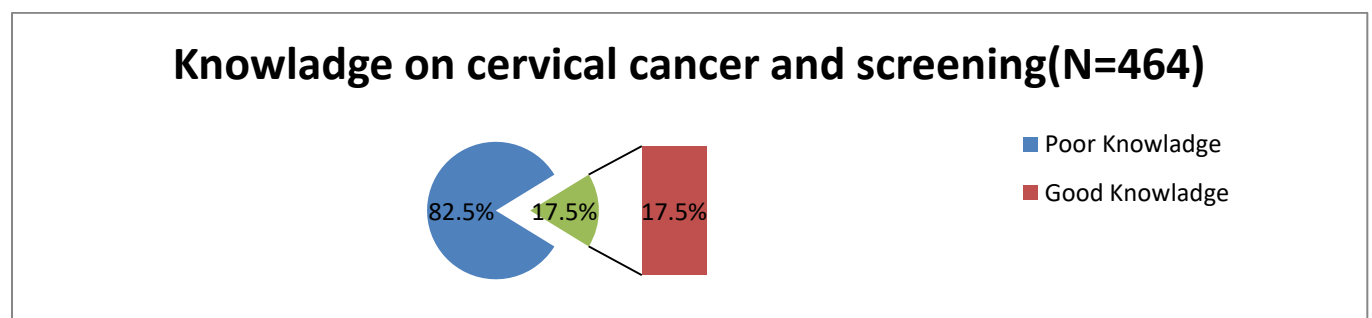


Figure2. Categorized Knowledge status of participants on cervical cancer and screening in Gondar public health facilities 2019G.C.

5.4 Health facility factors

As shown in the table 4 below, 207(44.6%) included in the study visited the health facilities for family planning, 145(31.3%) for under 5 children clinics and 112(24.1%) were for immunization service. About half of participants 245(52.8%) were at a distant of less than 5km from the nearest cervical cancer screening site. About two thirds 294(63.4%) of participants had not ever recommended by a health professional for cervical cancer screening.

Table 4. Health facility and accessibility factors among study participants in Gondar public health institutions 2019 (N=464).

Variables			Frequency	Percent
Previously knew VIA screening site	No		384	82.8
	Yes		80	17.2
Ever been recommended for screening	No		294	63.4
	Yes		170	36.6
Distance traveled to nearest screening site	greater than 5 km		219	47.2
	less than 5 km		245	52.8
transportation method	on foot		188	40.5
	public bus		114	24.6
	Taxi		162	34.9
Reason of Visit	family planning		207	44.6
	Immunization		112	24.1
	under 5 clinic		145	31.3

5.5 Cervical cancer screening uptake for screening offer

The majority 388(83.6%) of study participants refused to do cervical cancer screening test when they offered the screening test actively in the same day of their visit. Only 76(16.4%) out of 464 study participants underwent the screening test. Out of 76 screened women 29(38.2%), 27(35.5%), 20(26.3%) were from family planning, under 5 children and immunization OPDs respectively. Most of screened 70 (92.1%) participants tested VIA negative. 4 (5.2%) tested positive and the remaining 2(2.6%) were suspicious of pre cervical cancer lesions. Among VIA positive study participant 3 of them were eligible for cryotherapy and treated accordingly.

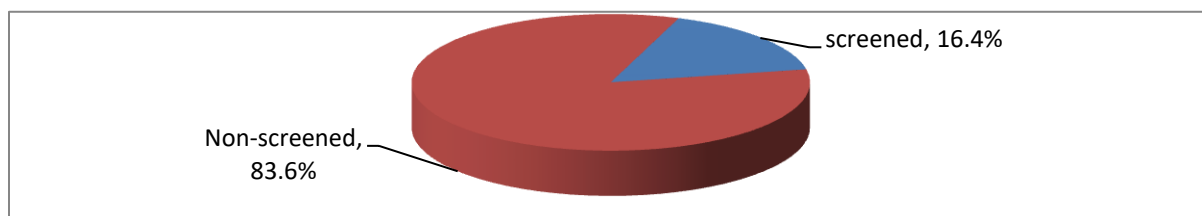
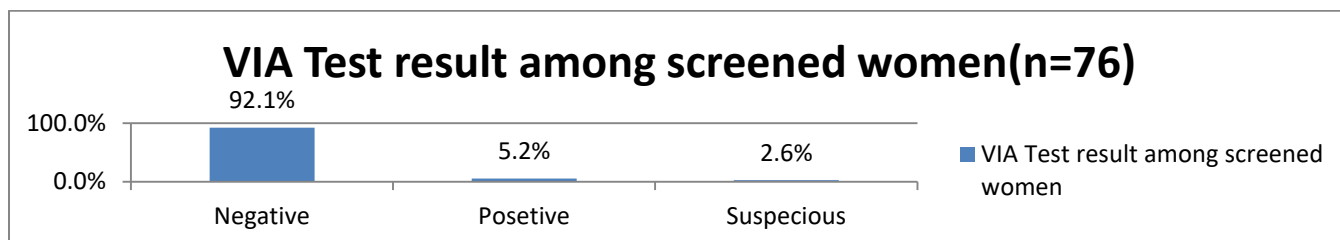


Figure 3. Cervical cancer screening status of respondents when screening test was offered in Gondar public health institutions 2019.



As shown in the figure 4 below, the most common reason mentioned for rejecting the screening test by study participants were feeling of healthy 334(86%) followed by came for other health service 297(77%).

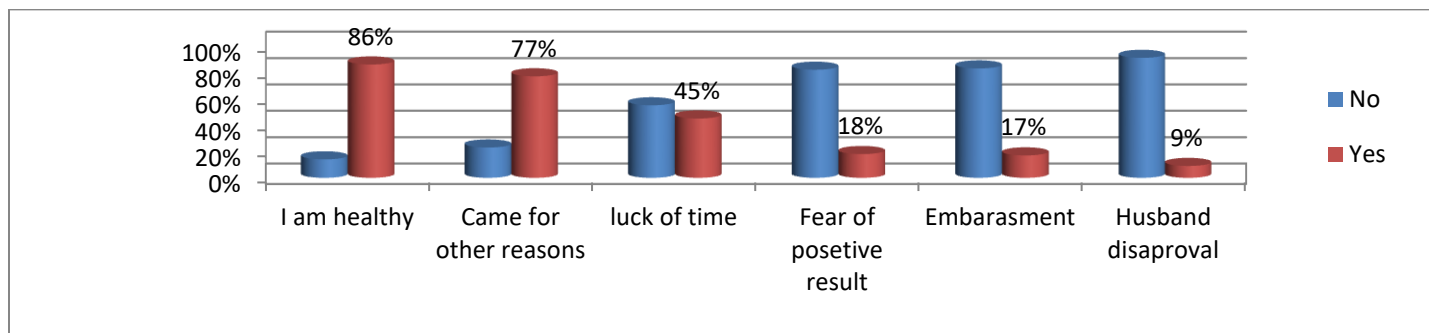


Figure 4. Reason for rejecting VIA screening offer in Gondar public health facilities 2019 G.C

Table 5: Comparison of screened and non-screened women based on their socio demographic characteristics in Gondar town public health facilities 2019 (N=464)

Variables		Cervical cancer screening status		P-Value
		Non- screened(n=388)	Screened n=76	
Age group	30-34	187(83.9)	36(16.1)	X^2 , 0.012*
	35-39	134(89.3)	16(10.7)	
	40-44	42(76.4)	13(23.6)	
	45-49	25(69.4)	11(30.6)	
Marital status	Single	8(80)	2(20)	F,0.70
	Married	330(83.8)	64(16.2)	
	Divorced	32(82)	7(18)	
	Widowed	13(92.9)	1(7.1)	
	Separated	5(71.4)	2(28.6)	
Residence	Rural	78(86.7)	12(13.3)	X^2 , 0.38
	Urban	310(82.9)	64(17.1)	
Women education	No education	277(89.4)	33(10.6)	X^2 , <0.001*
	Primary education	47(75.8)	15(24.2)	
	Secondary education	39(68.4)	18(31.6)	
	Tertiary education(12+)	25(71.4)	10(28.6)	
Occupational status	Housewife	230(85.5)	39(14.5)	X^2 , 0.432
	Government worker	36(81.8)	8(18.2)	

	Private job	122(80.8)	29(19.2)	
	<700	35(79.5)	9(20.5)	X^2 ,0.620
	700-1400	158(86.8)	24(13.2)	
Income status	1401-2100	75(83.3)	15(16.7)	
	2101-2800	41(82)	9(18)	
	>2800	79(80.6)	19(19.4)	
	1 children	64(85.3)	11(14.7)	X^2 ,0.272
Number of children	2-4 children	240(81.6)	54(18.4)	
	>4 children	84(88.4)	11(11.6)	
	One	238(79.6)	61(20.4)	X^2 ,<0.001*
Number of sexual partner	Two	142(92.8)	11(7.2)	
	More than three	8(66.7)	4(33.3)	
	Negative	374(83.5)	74(16.5)	F ,0.086
HIV status	Positive	3(60)	2(40)	
	do not know	11(100)	0(0)	

NB= X^2 =Pearson chi square, F = Fisher's Exact Test, * p <0.05(statistically significant)

5.6. Acceptability of cervical cancer screening among women who underwent screening procedure

Exit interview was conducted on all participants who screened for cervical cancer screening test offer. Out of 464 study participants all of 76 (16.4%) screened women were interviewed after they underwent screening procedure to rate their acceptability of the screening service they received, would you undergo the screening test again in the future? and this study found that more than half of screened participants 44(58%) accepted VIA cervical cancer screening test. Furthermore 45(59.2%) of screened women claimed they would recommend VIA screening test for others.

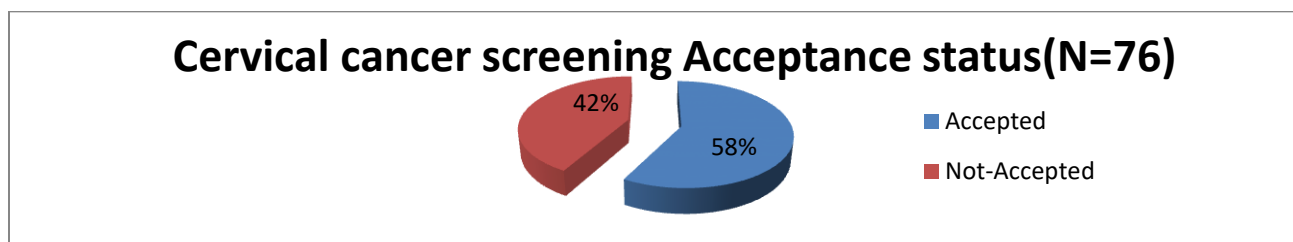


Figure 5.*Acceptability of cervical cancer screening among screened participants in Gondar public health institutions 2019 G.C.*

5.7 Post-screening Experience of study participants after underwent screening procedure

With regard to screening procedure 43(56.6%) out of 76 screened study participants mentioned that the screening procedure resulted slight discomfort whereas 2(2.6%) experienced severe pain during screening procedure. Majority of screened participants 59(77.6%) felt burning sensation after screening procedure is completed as 4(5.3%) and 13(17.1%) of screened participants experienced vaginal discharge and vaginal bleeding respectively. 26(34.2%) of screened participants did not received information from screener inside screening room where as majority of 50(65.8%) screened participants received information from their screening provider.

The great majority 67(88.2%) of screened participants said they were embarrassed during cervical cancer screening procedure. Almost all 72(94.2%) of screened women preferred to be screened by female screening provider. 27(35.5%) screened participants complained their privacy was not protected inside the screening room while 47(64.5%) of them felt their privacy

was protected. About quarter of 20(26.3%) screened participants were not happy about the behavior of screening provider whereas the majority 56(77.7%) of screened participants were happy with behavior of screening provider. 52(68.4%) witnessed that they were treated with respect inside the screening room and 57(75%) of screened participants experienced short waiting time for attending the screening service.

More than half of screened 40(52.6%) participants complained lack of separate room for cervical cancer screening. With regard to screening program organization about half of screened participants 39(51.3%) said the screening program organization required improvement while 37(48.7%) of them satisfied by the screening program as it is.

Table 6.*Post screening experience of women's after underwent the screening procedure in Gondar public health institutions 2019(N=76).*

Variable		Frequency	Percent
Screening procedure	no pain/discomfort	19	25
	slight discomfort	43	56.6
	moderate pain	12	15.8
	sever pain	2	2.6
problem after screening	Vaginal discharge	4	5.3
	Vaginal Bleeding	13	17.1
	Burning sensation	59	77.6
Information received from provider	No	26	34.2
	Yes	50	65.8
Embarrassed	No	9	11.8
	Yes	67	88.2
preferred gender	Female	72	94.2

	Male	2	2.6
	Male/female	4	5.2
Privacy protected	No	27	35.5
	Yes	47	64.5
Happy with screening provider	No	20	26.3
	Yes	56	73.7
Treated with respect	No	24	31.6
	Yes	52	68.4
Waiting time	Short	57	75
	Medium	6	7.9
	Long	13	17.1
clean and comfortable screening room	No	19	25
	Yes	57	75
Separate screening room	No	40	52.6
	Yes	36	47.4
Screening Program organization	Need improvement	39	51.3
	Satisfied as it is	37	48.7

5.8. Factors associated with cervical cancer screening uptake

5.8.1. Multivariable logistic regression Analysis for factors associated with cervical cancer screening uptake.

In binary logistic regression analysis socio-demographic variables (Age group, women educational status, husband educational status and number of sexual partner), perception based on HBM constructs (perceived benefit, perceived susceptibility, perceived barrier, perceived severity, perceived self-efficacy and cues to action), Knowledge status, ever being recommended by health profession, know where to get cervical cancer screening were significantly associated with screening uptake. P-value less than or equal to 0.2 in binary logistic regression were used to select and transferred variables in to multivariable logistic regression analysis. As the result all the above mentioned variables were included in multivariable logistic regression model. Furthermore by performing model goodness of fit test; Variables (husband educational status and number of sexual partner) were removed from the model. The rest of variables were included in the final multivariable logistic regression model to determine independent association with cervical cancer screening uptake.

No significant association was found between age group in general($p=0.11$) and cervical cancer screening uptake, however women within 40-44 age group were 4 times more likely to uptake cervical cancer screening test offer than those within 30-34 age group **AOR=4, 95% CI (1.13,14.20)**. Educational status of the women had a statistically significant association with cervical cancer screening uptake ($p=0.003$). Women who had tertiary education were 5.5 times more likely for cervical cancer screening uptake than women with no education: **AOR=5.5,95%CI(1.26,24.04)**, Primary education **AOR=5.4,95%CI(1.62,17.77)**, secondary education **AOR=5.2,95%CI(1.74,15.93)**. This implies that as educational level increases the odds of cervical cancer screening test uptake by women increases.

Perception based on HBM constructs found to have a significant association with cervical cancer screening uptake when VIA test was offered. Those eligible women's who had high perceived susceptibility for cervical cancer were 6.5 times more likely to receive the screening test than

those women who had low perceived susceptibility **AOR=6.5,95% CI(2.72,15.51)**. Women who had low perceived barrier were 6.4 times more likely to receive the screening test than women with high perceived barrier **AOR=6.4,(2.30,17.80)**. Those with high perceived severity of cervical cancer were 3.4 times more likely to receive the screening test when they offered than those who had low perceived severity **AOR=3.4,95% CI(1.01,11.85)**. Women who had high cues to action were 4.5 times more likely to receive cervical cancer screening test offer than women who had low cues to action **AOR=4.5,95% CI(1.86,11.32)**. Those with high self-efficacy were 5 times more likely to receive cervical cancer screening test offer than those who had low self-efficacy **AOR=5,95% CI(2.14,11.73)**.

Knowledge statuses of the participant were also found to have a statistically significant association with cervical cancer screening uptake when VIA screening test was offered. Those who had good knowledge regarding cervical cancer and screening were 8.4 times more likely to receive the screening test when VIA cervical cancer screening test was offered; **AOR=8.4,95% CI (3.33,21.21)**. Those women's who had been recommended for cervical cancer screening test were 2.7 times more likely to receive the screening test when they offered VIA screening test :**AOR=2.7,95% CI(1.15,6.51)**.

Despite Perceived benefit and previous knowledge of where cervical cancer screening test offered were being significant in bivariate binary logistic regression analysis; they did not significantly associated in multi-variable logistic regression when other variables kept constant.

Table 7 : Multivariable Logistic regression analysis for factors associated with cervical cancer screening uptake in Gondar public health facilities 2019 G.C (N=464)

Variables		COR(95% CI)	P-value	AOR(95%CI)	P-value
Age group	30-34®	1	1	1	1
	35-39	0.62(0.33,1.16)	0.13	0.9(0.29,0.77)	0.86
	40-44	1.6(0.78,3.29)	0.19	4.0(1.13,14.20)	0.03*
	45-49	2.28(1.03,5.05)	0.04	3.5(0.85,14.40)	0.08
Women educational status	No education®	1	1	1	1
	Primary education	2.67(1.35,5.31)	0.005	5.4(1.62,17.77)	0.006*
	Secondary education	3.87(1.99,7.53)	<0.001	5.2(1.74,15.93)	0.003*
	Tertiary education(12+)	3.35(1.48,7.60)	0.004	5.5(1.26,24.04)	0.02*
Perceived Benefit	Low®	1	1	1	1
	High	2.02(1.02,3.99)	0.04	0.57(0.20,1.61)	0.292
Perceived Susceptibility	Low®	1	1	1	1
	High	23.4(12.7,43.0)	<0.001	6.5(2.72,15.51)	<0.001*
Perceived Barrier	Low	9.11(4.54,18.25)	<0.001	6.4(2.30,17.80)	<0.001*
	High®	1	1	1	1
Perceived	Low®	1	1	1	1

Severity	High	3.94(1.66,9.36)	0.002	3.4(1.01,11.85)	0.04*
	Low®	1	1	1	1
Cues to action	High	25.8(13.9,47.8)	<0.001	4.5(1.86,11.32)	0.001*
Perceived self-efficacy	Low®	1	1	1	1
	High	12.4(7.07,21.83)	<0.001	5(2.14, 11.73)	<0.001*
Knowledge status	Low®	1	1	1	1
	High	12(6.83,21.03)	<0.001	8.4(3.33,21.21)	<0.001*
Ever being told for screening	No®	1	1	1	1
	Yes	2.5(1.52,4.13)	<0.001	2.7(1.15,6.51)	0.02*
Knew where screening site is	No®	1	1	1	1
	Yes	1.96(1.09,3.48)	0.02	1.1(0.39,3.03)	0.85

NB=®=Reference, COR=crude odds ratio, AOR=Adjusted odds ratio, CI=Confidence interval, *p<0.05(significant association)

6. Discussion

This study was conducted to assess cervical cancer screening uptake, acceptability and associated factors among age eligible women in Gondar town public health facilities. The study found that cervical cancer screening uptake by women who visited Gondar public health facilities for reproductive health services were low 76(16.4%). Feeling of healthy were the most common reason for VIA screening test refusal. Women's educational status, history of ever being recommended by health provider, Knowledge status, perceived susceptibility, perceived barrier, perceived severity, cues to action and perceived self-efficacy were significantly associated with actual cervical cancer screening uptake. The study also found that 44 out of 76 (58%) screened women for cervical cancer were accepted the screening test.

This study found that cervical cancer screening uptake by study participants were low 76(16.4%). The study finding was consistent with other studies in which cervical cancer screening uptake was 16.4% in Kenya in 2018(46) and 17.5 % in Kenya in 2015(40).

Although cervical cancer screening uptake from this study finding is very low in itself, it is higher than the previous uptake study in Gondar hospital 10%(49), 10.6 % in Addis Ababa(31), 8% in Nigeria 2016(64), 6% in Kenya in 2013(44) and 4.8% in Uganda(58). This difference might be due to difference on population characteristics, and study settings or facilities among these studies. For instance the previously conducted study in Gondar was merely focus on HIV positive women visited the referral hospital alone compared with the current study which includes the general population by including health facilities providing cervical cancer screening and hospital together. So increased uptake observed in the current study might be because of recent placement of VIA screening to the health center level in the town which is closer to the general population than it was only at hospital level before. Also eligible women were actually invited and offered VIA screening in the current study than the previous study. This might help women easily access the screening service and utilize accordingly. Current cervical cancer prevention promotion programs in the country, women sensitization implementation activities and time gap between those studies might be an additional explanation for such difference.

However the current finding is lower than self-reported screening uptake(23.4%) among HIV positive women in Gondar university referral hospital in 2017(65), 19% in mekele, Ethiopia in 2015(16),46% in Kenya in 2017(57),40.7% in Bahrain in 2018(60)and 26% in Saudi Arabia in 2019(41).The difference might be due to difference on the way cervical cancer screening uptake was measured .All of the above previous studies used self-reported past experience as a measure for screening uptake which however is subject to over-reporting by women's for cervical cancer screening as reported by studies (35-37).Whereas the current study measured uptake from the same institution after active enrollment of eligible participants for the screening service (directly observing the test result reported from the screening room) which in fact the recommended way to minimize bias as opposed to self-reported screening report.

The most common reason for cervical cancer screening refusal when they offered the screening test were feeling of healthy(86%),came to visit the facility for other reasons(77.5%),luck of time(45%),fear of test result (18%),and embarrassment(17%).This was consistent with study done in Uganda documenting 4.8% for fear of finding they had cervical cancer,27.8% refused because of luck of time as the reason for refusal(12).

This study found that cervical cancer screening acceptability was 57.9%.This finding is lower with previously conducted similar studies, measured acceptability in the same way as the current study, in which acceptance was 97.4% in urban Uganda (62) and 91.4% in rural Uganda(12).This difference might be due to difference on socio demographic characteristics across countries, different settings and difference in the time gaps between those studies. Also current study was restricted with in age group of 30-49 years old while other studies had no age restriction; this might explain the observed difference among these studies with the current finding. Very low knowledge and perception regarding cervical cancer and screening among study participants in the current study might affect their belief of VIA screening on cervical cancer prevention. Furthermore as the post screening experience of screened participants in the current study highlighted that 66(88.2%) out of 76 screened women were ashamed of the screening test and this would perhaps affect their acceptance of the screening test for future follow up.

However the study finding is somehow higher than the one reported in Addis Ababa, Ethiopia in 2015 from which acceptability of cervical cancer screening was 24.3%(17). This difference might be due to difference on the nature of study population that the studies focused on. The previous study was limited on HIV positive women whereas the current study focuses on the general population. Furthermore the relatively high proportion of acceptability of VIA after screening procedure in the current study might be due to the way acceptability was measured as the current study did not consider other parameters related with the service for acceptability measurement rather acceptability was measured if screened women would want to go for the test again in the future or not.

With regard to post screening experience of screened women, the most common complaint was 59(77.6%) felt burning sensation and 43(56.6%) discomfort during screening procedure. This is similar with a study on acceptability of cervical cancer screening in Uganda 2012(62); that women were cited pain/discomfort during insertion of vaginal speculum and burning sensation during application of acetic acid for not recommending the screening service for others. Burning sensation experienced during screening procedure is due to 5%aceto-acetic acid applied on the cervix to visualize aceto lesions, and this would subside within a few minutes or hours after the procedure. Health education and information regarding this and related consequences are necessary for reassurance that might put positive influence for future acceptability of cervical cancer screening and eventually to increase actual screening uptake. This is highlighted in this study that given screened participants 21(27.6%) Said they did not received health education information in the screening room, only half of screened participants accepted the screening test for their future follow up. 67 screened women (88.2%) Said they felt embarrassment during screening procedure and 27(35.5%) did not feel that their privacy was protected. This is explained by the fact that 40 of screened participants (52.6%) witnessed lack of separate screening room made them feel unhappy about the screening room. Thus placing well equipped and separated screening room would make them feel more confident on the service they received and possibly put an impact on their acceptance of the screening service they received. Almost all screened 72(94.7%) out of 76 women Said they would prefer a female cervical cancer screener. This finding is go hand in hand that currently screening service is provided mainly by pair of trained female nurses in the health facilities of Gondar town health centers. What this means is

that there is a need to place female screeners in each screening site as much as possible to make sure that the VIA screening service is well accepted which in turn would result a better actual screening uptake.

With regard to factors affecting cervical cancer screening uptake, this study found that among socio-demographic characteristics, educational status had independent association with cervical cancer screening uptake. This is consistent with studies in Gondar among HIV positive women from which as education level increases the odds of cervical cancer screening uptake also increases(49),in Kenya similar finding also reported(40).This is also to mean that women who are not educated may not have participate in cervical cancer screening program, their health seeking tendency is by far less compared with educated women's(33).So in order to increase cervical cancer screening uptake education on women need to be considered and regular health education and sensitization is needed as education empowered them to decide on preventive health actions, like cervical cancer screening. However in this study there is no independent statistical association between other socio-demographic factors and cervical cancer screening uptake when other factors held constant.

In this study, history of ever been recommended by health profession for screening was significantly associated with cervical cancer screening uptake. This is consistent with findings from Uganda found that ever been recommended by a health worker was a strong predictor for cervical cancer screening uptake(58). This implies that in order to increases uptake of cervical cancer screening by eligible women health workers need to recommend eligible women whenever they contacted them in the health facilities.

Knowledge status among study participants 382(82.3%) were poor in Gondar public health facilities, and had strong independent statistical association with cervical cancer screening uptake (AOR=8.4, 95% CI (3.33, 21.21)).This is consistent with studies in developing countries in general where knowledge on cervical cancer and screening is poor. In Gondar hospital that comprehensive knowledge was poor (79.9%) and was also a significant predictor variable in that study (AOR=3.02,95%CI(2.31,7.21) with cervical cancer screening uptake(65).However this finding is inconsistent with the one reported in southwest Ethiopia in 2017 that knowledge level

was high among study participants 319 (86.9%) (34). This difference might be due to the previous study was conducted on health professionals working on health facilities and it is not a surprise that they had good knowledge as their professional job exposed them to have information on cervical cancer and screening as compared with the current study which focused on the general population among whom majority had no formal education at all.

As documented in the literature Perception of the women based on HBM constructs regarding cervical cancer and screening has been found to have an impact on cervical cancer screening uptake. In this study perceived benefit among study participants regarding cervical cancer screening was seemed to be high 354(76.5%). This high perceived benefit of cervical cancer screening among age eligible women's in Gondar public health facilities is a good news and suggests that a program of public education within the context of a national screening program is likely to result in increased screening uptake. Although perceived benefit of cervical cancer screening was not statistically significant variable; AOR=0.57, 95%CI:(0.20,1.61), (P=0.29). This is consistent with other findings in Saudi Arabia; perceived benefit was high among study participants from 450 study participants 82% had high perceived benefit(41).

perceived susceptibility of cervical cancer was statistically associated with cervical cancer screening uptake (AOR=6.5, 95%CI: 2.72, 15.51). This finding is similar with study in mekele, Ethiopia 2015(16) in which perceived susceptibility was significantly associated with cervical cancer screening uptake (AOR=2.2, 95%CI: 1.30, 3.78). Also similar with Botswana in 2017(66) that perceived susceptibility were significantly associated with screening uptake. AOR= 1.8; 95% CI; 1.094-3.067)

About half of study participants in this study found to have low perceived barrier 235(50.6%). In multi-Variable logistic regression perceived barrier by study participants had a strong statistical association with cervical cancer screening uptake; (AOR=6.4, 95%CI: 2.30, 17.80). This is in line with study in 2015 mekele Ethiopia that perceived barriers were significantly associated with cervical cancer screening uptake (AOR = 2.256, 95%CI =1.447–3.517)(16). It is very important therefore to work on get ride off barriers for cervical cancer screening along with the nationwide

cervical cancer screening promotion and women sensitization activities so as to increase cervical cancer screening uptake.

This study also revealed that perceived severity among study participants in Gondar town public health facilities was high 360(76.6%), and was significantly associated with cervical cancer screening uptake $AOR=3.4;95\%CI:1.019,11.851$. This is consistent with Kenya study that those who have perceived cervical cancer as a serious disease had higher screening uptake than those who do not(40). This implies that high perceived severity by eligible women's in Gondar public health facilities is an encouraging news. If cervical cancer screening promotion and health education programs targeted to those eligible women particularly by health professionals would result a better cervical cancer screening uptake and eventually reducing morbidity and mortality caused by cervical cancer in Ethiopia.

With regard to cues to action ,lower percentage of study participants had cues for action 101(21.8%). The odds of cervical cancer screening uptake among those who had cues for action were 4.5 times more likely than those who did not; $AOR=4.6,95\%CI:1.862,11.32$. This is consistent with a study in Kenya 2014 (40) .

In terms of self-efficacy lower percentage of study participants had high self-efficacy regarding cervical cancer screening 118(25.4%) and had strong statistical association with cervical cancer screening uptake. This is consistent with a study in Nigeria reported that the confidence of women's regarding screening resulting increased screening uptake(53). It is therefore necessary to educate and empower women as often as possible to boost their confidence in doing so will help them to make decisions that favors them to utilize the already available free cervical cancer screening service in the health facilities.

7. Strength and limitation of the study

Strength: The study was conducted on women who were age eligible (30-49 years old) for cervical cancer screening as recommended by WHO. The dependent variable, cervical cancer screening uptake, was measured using active enrollment of eligible women's and offered them the screening service to see if they refused or received the screening service rather than recording self-reported past experience. Recall bias, typical down side of cross-sectional study design, does not affect the primary outcome variable of this study since it was measured directly by observing the VIA test result card obtained soon after the women underwent the screening procedure. The data collectors used for this study were female midwifery professionals who could help study participants to discuss sensitive issues. The study used face-to-face interview method of data collection which helps to clarify unclear questions to study participants so that quality of data was collected.

Limitation: Given eligible study participants were recruited and offered the screening service in a single visit as they visited the health facility for other reproductive health services, the reported cervical cancer screening uptake based on their single visit might be different if they were sensitized for extended follow up of time such as weeks or months. On the other hand cervical cancer screening acceptability measured in this study did not consider other parameters rather it was measured using the item whether screened participants would be screened again in the future or recommend the service for others only. As the result the reported magnitude of screening acceptability after screening procedure would have been different if other parameters for acceptability measurement were considered. Since the study was facility based and used consecutive sampling technique to select study participant's generalizability might hardly be achieved.

8. Conclusion

This study found that the actual cervical cancer screening uptake when the screening test was offered among age eligible for cervical cancer screening in Gondar public health facilities was very low. However more than half of screened women was accepted cervical cancer screening using "see and treat" approach. Women educational level, Knowledge about cervical cancer and

its screening, perceived susceptibility ,perceived barrier, cues to action, self-efficacy and history of ever been recommended by health worker for screening had significantly associated with actual cervical cancer screening uptake.

9. Recommendation

Based on the findings of this particular study the following recommendations are provided

The study found a low level of cervical cancer screening uptake although more than half of screened women accepted the screening test after they underwent screening procedure amongst study participants attending public health facilities in Gondar town. Low level of knowledge and perception on cervical cancer was recorded as well as these factors were significantly associated with cervical cancer screening uptake in the study. The study therefore recommends:

Ethiopian ministry of health (EMOH): Should improve public health education and awareness creation to raise the knowledge and perception of cervical cancer screening amongst women nationally in general and study area in particular as this will eventually increase the actual cervical cancer screening uptake.

Regional, Zonal and Gondar town health administrators: Should work on improving public health education and awareness creation in collaboration with MOH to raise the knowledge and perception of cervical cancer screening among women eligible for screening in the study area.

Health workers in public health facilities: Should advise and motivate women of age eligible for cervical cancer screening for the need to undergo screening test whenever they approached them in the health facilities as this will improve cervical cancer screening uptake by those women targeted for screening.

Conduct further studies: Researchers should investigate further on determinant factors on cervical cancer screening uptake and acceptability by conducting large scale community based studies using advanced epidemiological study designs.

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11. ANNEX

Participant Information Sheet

Title: Assessment of Cervical Cancer Screening Uptake, Acceptability and Associated Factors with “See and Treat Approach” Among Women of age 30-49 Years Old in Gondar North West Ethiopia.

Principal Investigator: Alemnew Destaw

Organization: Addis Ababa University School of Public Health

Sponsor: Addis Ababa University School of Public Health

Introduction: Hello! How are you? My name is _____. I live in this town and I am a data collector for the research on assessment of Cervical Cancer Screening Uptake, Acceptability and factors associated conducted here by a post graduate student in Addis Ababa University school of public health. You are being selected randomly to participate in this study and I am going to give you information about why the study is being done and what it will involve.

Objective of the research: The objective of this study is to assess cervical cancer screening uptake, acceptability and associated factors with “see and treat approach” among women’s of 30-49 years old in Gondar North West Ethiopia.

Participant selection and responsibilities: You are being selected at random to participate in the study. Other participants are also selected randomly for the study and you are to give the answer for all the questions in a sincere and honest manner. The questions will last 20 to 30 minutes.

Benefits of the study: Even though there are no immediate benefits for those people participating in the study, it is hoped that this work will assist the researchers, policy makers and health Professionals to identify the factors that influence cervical cancer screening service and thereby to help for future planning, policy making and care provision for the benefit of the society at large.

Risk of the study: There are no risks or harms that you will be exposed to by participating in this study.

Confidentiality: All the information that we collect about you during the course of the research will be kept strictly confidential. You will not be able to be identified or identifiable in any reports or publications. A code will be used on the questionnaire and your name will not appear anywhere in the reports. After data collection all questionnaires will be securely stored and access will be allowed to the research team only.

Right to Withdraw: Your participation in this research is entirely voluntary. It is your choice whether to participate or not and you can stop the interview at any point if you do not want to continue to part of the study.

Contact Address: You can use the following contact address if you want to ask any questions at any time about the study.

Name: Alemnew Destaw

Mobile phone no :+251979695905

Email:alemrondesta66@gmail.com

English Version Questionnaire
Consent form

Good morning / good after noon!

My name is_____, I am here to collect information from you about cervical cancer and related issues for the study entitled “assessment of cervical cancer screening uptake, acceptability and associated factors with “see and treat approach” among women of age group 30-49 years old in Gondar north west Ethiopia” As to the information given ahead, participating in this study has no any risk and harm by any means. Your name will not be written on this form and the information you give will never be shared to others. You may not answer any questions that you don't want to answer and you may end this interview at any time you want. Now I would like to tell you that you are selected to be participant of the study. Your genuine response to the interviews will be very important for the purpose of the study and we would like to appreciate your voluntarily participation in the survey.

Thank you for your cooperation and listening!!!

Are you willing to participate?

Yes ☐ (continue the interview) No ☐ (stop the interview)

1. Name of facility/hospital/Health center: _____

2. Date: ____/____/____

3. Questionnaire Identification Number _____

4. Interviewer's Name _____ Signature _____

5. Supervisor's Name _____ Signature _____

Part 1. Questions to assess socio-demographic characteristics of the participant

S. No	Questions	Responses
1	How old are you?	_____years
2	What is your religion?	1.Orthodox 2.Muslim 3.Protestant4.Catholic 5.Others
3	What is your ethnicity?	1.Amhara 2.Tigray 3.Oromo 4.Kemant 5.Others
4	Your place of residence?	1.Urban 2.Rural
5	What is your marital status?	1.Single 2.Married 3.Divorced 4.widowed 5.Separated
6	What is your educational status (the highest grade you completed)?	1.unable to read and write 4.Secondary(9-12) 2.Able to read and/write 5.Certificate and diploma 3.Primary education 6.colledge degree and above
7	If married in Q. 5, What is your husband's educational status?	1.unable to read and write 4.Secondary(9-12) 2.Able to read and/write 5.Certificate and diploma 3.Primary education 6.colledge degree and above
8	What is your occupation/ what kind of work do you mainly do/?	1. Not employed 5. house wife 2. civil servant/Government employee 6. Student 3. Employee in private organization 7. Daily laborer 4.self-employed 8.Other(specify)
9	What is your monthly income	_____ (in Ethiopian birr)
10	How many children do you have?	_____in number
11	Number of sexual partners experience	_____in number
12	Self-reported HIV sero status	1.positive 2.Negative 3.I do not know

Part 2. Questions assessing women's perception using Health Belief Model

S.No	women's perception	Responses				
		Strongly disagree	Disagree	Not sure	Agree	strongly agree

13	Perceived benefit					
	VIA test can find cervical changes before they become cancer					
	If cervical changes are found early they are easily curable					
	It is important for a woman to have a VIA test so she will know if she is healthy					
14	Perceived barriers					
	Screening is not necessary since there is no cure for cancer					
	The screening procedure is painful					
	It is embarrassing to have a VIA test					
	don't know where to go if wanted a VIA test					
	partner would not allow to have a VIA test					
15	Perceived susceptibility					
	Women in your age group are at risk for getting cervical cancer.					
	Women in your age group are more likely than others to get cervical cancer					

16	Perceived seriousness Most women who develop cervical cancer will die from it.					
	A women life would change if she had cervical cancer.					
17	Cues to screening Women that you know go to have VIA screening done					
	Healthcare worker ever told you to get cervical cancer screening					
18	Perceived self-efficacy You feel capable of getting a VIA test.					
	You feel capable of managing any emotional stress caused by VIA test					

Part 3. Questions assessing women's Knowledge on cervical cancer and screening

S.No	Questions	Responses	
		1.Yes	2.No
19	Risk factors of cervical cancer:		
	Having multiple sexual partner is a risk of cervical cancer		
	Exposure to early sexual debut is a risk of cervical cancer		
	Infection by virus (HPV) is a risk of cervical cancer		
	Low immunity due to HIV/AIDS is a risk of cervical cancer		
20	Symptom of cervical cancer:		
	Vaginal discharge is a symptom of cervical cancer		

	Vaginal bleeding is a symptom of cervical cancer		
	Pain during coitus is a symptom of cervical cancer		
21	Prevention of cervical cancer		
	Cervical cancer is preventable		
	Vaccination prevents cervical cancer		
	Screening prevents cervical cancer		
22	Treatment for cervical cancer		
	Cervical cancer is treatable disease		
	Surgery is a treatment modality for cervical cancer		
	Chemotherapy is a treatment modality for cervical cancer		
	Radiation is a treatment modality for cervical cancer		
	Do not know a treatment modality for cervical cancer		
23	Screening Frequency		
	I know screening frequency for cervical cancer		
	Screening frequency for women 30-49 years old is every five years		

Part 4: Health facility and accessibility factors

S.No	Questions	Responses
24	Reason of current health facility visit	1.Family planning 2.Immunization service 3.Under five clinic 4.others
25	Distance from health facility to get cervical cancer screening service	Specify.....
26	Transportation method used to reach for the health facility	1.foot 2.Public bus 3.Taxi 4.Private motor bicycles, own car 5.Other method
27	Do you know where cervical cancer screening service is provided?	1.Yes 2.No

28	Have you ever been recommended for screening by health worker?	1.Yes 2.No
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Part 5: Questions assessing cervical cancer screening uptake and acceptability

NB: If the woman refused VAI screening test, go to part 6.

29	Have you ever performed cervical cancer screening test?	1.Yes 2.No
30	If yes to Q 29, What was your experience?	1.painful 2.embarrassing 3.Time consuming 4.costly 5.Not at all
31	Today, have you agreed to do cervical cancer screening offered at the VIA site?	1.Yes 2.No (If no, and if the woman refused for screening today or before when collecting data, go to part 6)
32	If the woman has performed the test, get the test results?	1.Negative 2.Positive 3.Suspicious for pre-cancerous (if test result was Positive, go to question 33)
33	If test result was Positive in Q 32, Did you received cryotherapy treatment immediately?	1.Yes 2.No
34	How long time did it take you for VIA screening and cryotherapy treatment	Specify.....
35	How did you see the space and equipment for implementing VIA and cryotherapy	1.There is sufficient space and equipment 2.There is a need for improvement 3.The space is overcrowded 4.Shortage of Equipment is seen
36	Are you satisfied by having cryotherapy at the same site with VIA	1.Yes 2.No
37	Would you undergo the same procedure in the future?	1.Yes 2.No
38	Would you Recommend the testing procedure to friend or relative?	1.Yes 2.No

Part 6: The Reasons for Cervical Cancer Screening Refusal

S.No		Responses		
		1.Yes	2.No	3.Don't know
39	What is the reason for refusal of the screening test?			
	Lack of female screeners			
	Staff are unfriendly			
	I want to do it in the private sector			
	A skilled provider is not available			
	The screening center is very far			
	Transportation problem			
	The screening test is costly			
	Husband disapproval			
	Embarrassment			
	Anticipated pain of the screening procedure			
	Lack of privacy			
	I'm healthy, I'm not likely to get cancer			
	For the fear that cancer will be discovered			
	have no time to undergo screening			
	I feel uncomfortable during the test			

Part 7: Experiences of women regarding cervical cancer screening service

40	How do you perceive discomfort/ pain you felt during the test	1.No pain/discomfort 2.Slight discomfort 3.Moderate pain 4.Severe pain 5.No pain
41	Is there any experienced problem during screening?	1.Severe bleeding 2.shock 3.any condition requiringHospitalization

42	Is there any experiencing problem during post screening service?	1.Vaginal discharge 2.Vaginal bleeding 3.Vaginal burning 4.No problem
43	When you were in the treatment room, did you get enough information about your condition?	1.Yes 2.No
44	Do you feel embarrassed when undergoing a VIA screening and Cryotherapy treatment?	1.Yes 2.No
45	Do you feel more comfortable in undergoing a VIA screening and Cryotherapy treatment? If the nurse/doctor is:	1.A female 2.A male 3.female / male
46	How is the cost of cervical cancer screening service?	1.High 2.Medium 3.Low 4. Free of cost
47	Do you think there is a Respect for privacy during cervical cancer screening?	1.Yes 2.No 2
48	How do you see Waiting time for screening?	1.Long waiting time 2.Medium waiting time 3.short waiting time
49	How did you see the staff behavior?	1.Un happy 2.Happy
50	Do you think a health care provider is skilled and competent	1.Yes 2.No
51	Have you received health education on Cervical cancer screening service?	1.Yes 2.No
52	Do you think the examination room is clean and Neat?	Yes.....1 No.....2
53	What is your idea on service provided?	1.There is a need for improvement 2.Satisfied 3.completely satisfied
54	Regarding quality of screening service, Do you think there is a Respect for privacy by staff?	1. Yes 2.No 3. I don't know
55	Regarding Interaction with the providers, Do you satisfied with Information provided about VIA and cryotherapy test in the center	1.Yes 2.No 3. I don't know

Thank you, Respondent, !!!!!

7. አባሪ

የተሳታፊዎች የመረጃ ቅጽ

ርእስ፡ በጌንደር ሰሜን ምዕራብ ኢትዮጵያ በሚገኙ ሴቶች ዘንድ ያለ የማህፀን ካንሰር ምርመራ አረዳድ ተያያዥ ጉዳዮች በተመለከተ “በማየት እና ህክምና በመስጠት” አቀራረብ የሚከናወን ጥናት።

ዋና ጥናት አጥኚ፡ አለምነው ደስታው

ድርጅት፡ የአዲስ አበባ ዩኒቨርሲቲ የማህበረሰብ ጤና ት/ቤት

ስፖንሰር፡ የአዲስ አበባ ዩኒቨርሲቲ የማህበረሰብ ጤና ት/ቤት

መግቢያ፡ ጤና ደስጥልን እንደምን ሰንብተዋል? ስሜ _____ ይባላል። የምኖረው በዚህ ከተማ ሲሆን በአዲስ አበባ ዩኒቨርሲቲ የማህበረሰብ ጤና ት/ቤት የድህረ ምረቃ ት/ቤት ለሚከናወነው የማህፀን ካንሰር ምርመራ አረዳድ ተያያዥ ጉዳዮች በተመለከተ “በማየት እና ህክምና በመስጠት” አቀራረብ ጥናት መረጃ እየሰበሰብኩ እገኛለሁ። እርስዎ በዚህ ጥናት ላይ መረጃ እንዲሰጡ ከተመረጡ ሰዎች መካከል ሲሆኑ ጥናቱ ለምን እንደሚከናወን እና ምን ምን ነገሮች እንደሚያካትት የምንነግርዎት ይሆናል።

የምርመራ አላማ፡

የዚህ ጥናት አላማ በጌንደር ሰሜን ምዕራብ ኢትዮጵያ በሚገኙ ሴቶች ዘንድ ያለ የማህፀን ካንሰር ምርመራ አረዳድ ተያያዥ ጉዳዮች በተመለከተ “በማየት እና ህክምና በመስጠት አቀራረብ” ዘዴ ጥናት ለማካሄድ ነው።

የተሳታፊዎች አመራረጥና ሃላፊነቶች

እርስዎ የተመረጡ በአካባቢ በሚገኙ ነዋሪዎች መካከል አለፍ አለፍ በማለት በተካሄደ የምርጫ አካሄድ ነው። ሌሎች ተሳታፊዎችን በዚህ መልክ የሚመረጡ ሲሆን የቀረቡትን ጥያቄዎች በእውነተኛነት እና በታማኝነት እንዲመልሱ እንጠብቃለን። ጥያቄዎቹ ከ20 እስከ 30 ደቂቃ የሚፈጁ ናቸው።

ከጥናቱ የሚገኙ ጥቅም፡

ምንም እንኳን ከጥናቱ ተሳታፊዎች በቀጥታ ጥቅም የማያገኙ ቢሆንም ጥናቱ እንደተመራማሪዎች፣ እንደፖሊሲ አውጪዎች እና ለጤና ባለሙያዎች የማህፀን ካንሰር ምርመራ አገልግሎት በተመለከተ ምን ምን ጉዳዮች ተጽእኖ እንደሚያሳድሩ ለማወቅ እና በዚህ መሠረትም ለማበረሰቡ በአጠቃላይ ጠቃሚ ሊሆን የሚችል ከዚህ ጋር የተያያዘ እቅድ ዝግጅት፣ ፖሊሲ ቀረጻ እና የጤና እንክብካቤ አሰጣጥን የሚያግዝ አንደሆነ ይታመናል።

በጥናቱ ምክንያት የሚደርስብቻ አሉታዊ ሁኔታ፡

በዚህ ጥናት ምክንያት በመሳተፍዎ ምንም አይነት የሚያጡት ነገርም ሆነ የሚደርስብዎት ነገር የለም።

ሚስጢራዊነት፡

ሁሉም ስለእርስዎ የምንሰበስባቸው መረጃዎች በጥብቅ ሚስጢር ይይዛሉ። በማናቸውም ሪፖርቶችም ሆነ ህትመቶች ላይ ማንነትዎ አይገለጽም። በመጠይቁ ላይ መለያ ምልክት ወይም ኮድ የሚሰየም ሲሆን በሪፖርቶች ላይ በየትኛውም አጋጣሚ ስምዎ የማይነሳ ይሆናል። መረጃው ከተሰበሰበ በኋላ ሁሉም መጠይቆች በሚስጢር አንድ ቦታ የሚቀመጡ ሲሆን መረጃውን ማግኘት የሚችሉት የቡድኑ አባላት ብቻ ይሆናሉ።

ከጥናቱ የመውጣት መብት፡

በዚህ ጥናት ላይ የማያደርጉት ተሳትፎ በእርስዎ ፈቃደኝነት ላይ የተመሰረተ ብቻ ነው። በጥናቱ ላይ የመሳተፍዎ ሆነ በጥናቱ ሂደት በማንኛውም ጊዜ መውጣት የእርስዎ ሙሉ ምርጫ ነው።

አድራሻ፡

ለተጨማሪ መረጃ በጥናቱ ወቅት ለሚኖርዎት ማናቸውም ጥያቄ የሚከተለው ሰው በሚከተለው አድራሻ ማነጋገር ይችላሉ።

ስም፡ አለምነው ደስታው

ሞባይል ስልክ ቁ፡ +251979695905

ኢሜይል፡ alemrondesta66@gmail.com

አማርኛ መጠየቂያ

የፈቃደኝነት መጠየቂያ ቅጽ

ጤናይስጥልኝ!_ስሜ_____ይባላል።የመጣሁት ርስወስለማሕጸን በርካን ሰርቅድመ ምርመራ ያለወትን የቅድመ ምርመራ ተሳትፎ እና ቅዴመ ምርመራ አገሌግልት ማግኘት ባሊቸውን ፊቃዮኝነት ላይ ተያያዥነት ያላቸው ጉዳዮች ላይ መረጃ ለመውሰደነው።

ከላይ እንደተገለጠለወት በጥናቱ ለመሳተፍ ወይም ያለመሳተፍ (እራስዎን ከጥናቱ የማግለል)

መብትዎ የግልምርጫዎ ብቻ ይሆናል። ለዚህ ጥናት ተብሎ ከእርስዎ የተገኘ ማንኛውም መረጃ ሚስጥራዊነቱ የተጠበቀ ይሆናል። በዚህ ጥናት ምክንያት ሊደርስብዎ የሚችል ምንም ዓይነት የአደጋ ተጋላጭ ወይም ጎንዮሽ ጉዳዮች አይኖሩም። እስካሁን በነበረን ቆይታ ይሳተፉበት ዘንድ ስለተጠየቁት ጥናት አስፈላጊ የተባሉትን መረጃዎች በሙሉ ገልጸንልዎታል። በዚህም መሰረት እርስዎ በጥናቱ ውስጥ ተካተዋል። መመለስ የማይፈልጉትን ጥያቄ እንዲመልሱ አይገደዱም። ለዚህ ጥናት በሚያደርጉት ትብብር ለጥንቱ መሳክት አስፈላጊ በመሆኑ በቂ መረጃ እንዳገኙ እና እንደተረዱ እያመን በፈቃደኝነት በጥናቱ ላይ ስለሚሳተፉ አመሰግናለሁ!! ስለ ዳመጡም አመሰግናለሁ!!

በዚህ ጥናት ለመሳተፍ ፈቃደኛ ነዎት?

አዎ _____ (መጠይቁን ይቀጥሉ)

አይደለሁም _____ (መጠይቁን ያቋርጡ)

አመሰግናለሁ!!!!!!

1. የጤና ተቋሙ ስም _____

2. ቀን _____ / _____ / _____

3. የጥያቄ ወረቀቱ መለያ ቁጥር _____

4. የመረጃ ሰብሳቢ ስምና ፋርማ _____

5. የተቆጣጣሪ ስምና ፋርማ _____

ክፍል አንድ፡ የማህበራዊ፣ ኢኮኖሚያዊና ስነ ህዝብ ሁኔታ የሚዳስስ መጠይቅ

ተ.ቁ	ጥያቄ	መልሶች (አማራጮች)
1	እድሜዎ ስንት ነው ?	_____ /በአመት/
2	ሃይማኖትዎ ምን ድንገት ነው?	1. ኦርቶዶክስ 2. ሙስሊም 3. ካቶሊክ 4. ፕሮቴስታንት 5. ሌላ ይገለጽ -----
3	ብሄርዎ ምን ድንገት ነው?	1. አማራ 2. ትግሬ 3. ቅማንት 4. ኦሮሞ 5. ሌላ ይገለጽ-----
4	የሚኖሩት የትኛው?	1. ከተማ 2. ገጠር
5	የትዳርዎ ሁኔታ ምን ድንገት ነው?	1. ያላገባች 2. ያገባች 3. የፈታች 4. ባለቤቷ የሞተባት 5. የተለያየች
6	የትምህርት ደረጃዎ ምን ይክልናል / እስከ ስንት ተምረዋል?	1. ማንበብና መጻሕፍት መመረቅ 2. ማንበብና መጻሕፍት መረጃ 3. የመጀመሪያ ደረጃ ት/ት ያለው (1-8) 4. የሁለተኛ ደረጃ ት/ት ያለው (9-12) 5. ሰርተፍኬት / ዲፕሎማ ያለው 6. ዲግሪና ከዛ በላይ
7	ለተ.ቁ 5 ምላሽዎ ያገባች ከሆነ የባለቤትዎ የት/ት ደረጃ ምን ድንገት ነው? ለሌሎች ለፍ	1. ማንበብና መጻሕፍት መመረቅ 2. ማንበብና መጻሕፍት መረጃ 3. የመጀመሪያ ደረጃ ት/ት ያለው (1-8) 4. የሁለተኛ ደረጃ ት/ት ያለው (9-12) 5. ሰርተፍኬት / ዲፕሎማ ያለው 6. ዲግሪና ከዛ በላይ
8	የተሰማሩበት የስራ መስክ (ዋና ስራ) ምን ድንገት ነው?	1. ስራ የሌላት 2. የመንግስት ሰራተኛ 3. የግለሰብ ድርጅት ተቀጣሪ 4.

		የግልስራያላት 5. የቤትእመቤት 6. ተማሪ 7. የቀንሰራተኛ 8. ሌላካለይገለጽ-----
9	የወርገቢዎምንያክልይሆናል ?	----- ብር
10	ስንት ልጆች አሉዎት?	_____ በቁጥር
11	ካሁን በፊት ስንት የጾታ ጉዳኛ ነበርዎት	_____ በቁጥር
12	ኤች አይ ቪ በደምሽ ውስጥ አለ	1.አዎ 2.የለም 3.አላውቅም

ክፍልሀለተ፡ሴቶች ስለ ማህፀን በር ካንሰር ቅድመ ምርመራ ያላቸውን ግንዛቤ እና ተያያዥ ጉዳዮችን መመዘኛ መጠይቅ.

S. No	ሴቶች ግንዛቤ	መልስ				
		በጠም አልስማ ማም	አልስማ ማም	እርግ ጠኛ አደለ ሁም	እስማ ማለሁ	በጠም እስማ ማለሁ
12	ከቅድመ ምርመራ ጠቀሜታ አንጽር ምርመራውየማህፀንበርለውጦችንወደካንሰርሳ ይቀየሩማወቅያስችሊሌ የማህፀንበርለውጦቀደምብሎከተወቅበህክም ናማዳንያስችላል ሴቶችጤናማመሆናችንማወቅያስችሊሌ					

13	ቅድመ ምርመራ ለማድረግ የሚከለክሉ ነገሮች ካንሰር መድሀኒት ስሌላለው ቅድመ ምርመራ አያስፈልግም ቅድመ ምርመራ ህክምና ሂደት ህመም አለው ምርመራው ሂደት አሳፋሪ ነው ምርመራ ብፈልግ እንካን የት መሂድ እንዳለብኝ አላውቅም ባለቤቴ ቅድመ ምርመራ እንዳደርግ አይፈቅድልኛም					
14	በካንሰር እያዛለሁ ብሎ ከማሰብ አንጽር በካንሰር የመያዝ እድሌት ልቅነው ከሌሎች ሴቶች በበለጠ በማህፀን በካንሰር እያዝ እሆናለሁ					
15	የማህፀን ካንሰር አስከፊነት በተመለከተ በማህፀን ካንሰር የተያዙ ሴቶች ብዙ ጊዜ ይሞታሉ የማህፀን ካንሰር ከተያዙ ሂደቱ ሙሉ በሙሉ ይቀየራል					
16	ቅድመ ምርመራ ለማድረግ የሚገፋፉ ቅድመ ምርመራ ያደረጉ የማቃቸው ሴቶች መኖራቸው ምርመራ እንዳደርግ ከጠናባለሁ ያምክረማግኔቴ					

17	ስለምርመራው የሚኖሩት በራስ መተማመን ምርመራ ማድረግ እንደምችል ይሰማኛል ከምርመራ በሁላሊ ከሰት የሚችልን ስነ- ልቦናዊ ቻና መቆም መቻል					
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ክፍል ሶስት፤ ስለማህፀን በር ካንሰር እና ቅድመ ምርመራ ያላቸውን እውቀት መመዘኛ መጠይቅ.

ተ.ቁ	ጥያቄ	መልስ	
		አዎ1	አላውቅም2
18	<u>የማህፀን በር ካንሰር አጋሊ ጭምቅ ነጥቦች</u> ከብዙ ተቃራኒ ጾታዊዎች ጋር የግብረ ስጋ ግንኙነት ማድረግ ለማህፀን በር ካንሰር አጋሊ ጭ ነው		
	በለጋ እዴ ሜዳ የግብረ ስጋ ግንኙነት መጀመር ለማህፀን በር ካንሰር አጋሊ ጭ ነው		
	በቫይረስ (HPV) ኢንፌክሽን መያዝ ለማህፀን በር ካንሰር አጋሊ ጭ ነው		
	በኢች አይቪ ኤድስ መያዝ ለማህፀን በር ካንሰር አጋሊ ጭ ነው		
19	<u>የማህፀን በር ካንሰር ምልክቶች</u> ከብልት ፈሳሽ መፍሰስ የማህፀን በር ካንሰር ምልክት ነው		
	ከግብረ ስጋ ግንኙነት በሃላ ከብልት ደም መፍሰስ		

	የማህፀን በር ካንሰር ምልክት ነው		
	በግብረ ስጋ ግንኙነት ጊዜ እና በሃላ የብልት ህመም የማህፀን በር ካንሰር ምልክት ነው		
20	<u>የማህፀን በር ካንሰር መከላከያ መንገዶች</u> የማህፀንበርካንሰርን መከላከል ይቻላል የማህፀንበርካንሰር በክትባትመከላከልይቻላል የማህፀንበርካንሰርበቅድመ ምርመራ መከላከልይቻላል		
21	<u>የማህፀንበርካንሰርህክምናዘዴዎች</u> የማህፀንበርካንሰርመታከምየሚችልነው ቀዶ ጥገና ለማህፀን በር ካንሰር የህክምና አይነት ነው ኬሞ ቴራፒየማህፀንበርካንሰርህክምናአይነትነው ራዲዎቴራፒየማህፀንበርካንሰርህክምናአይነትነው ስለ ማህፀንበርካንሰርህክምናአይነትነው አላውቅም		
22	የማህፀን በር ካንሰር ቅድመ ምርመራ ጊዜን በተመለከተ የማህፀን በር ካንሰር ቅድመ ምርመራ መቼ እንደሚደረግ አቃለው የማህፀን በር ካንሰር ቅድመ ምርመራ በየ 5 አመት ልዩነት ይደረጋል		

ክፍል አራት፡ ጤና ተቋማት ለማህፀን በር ቅድመ ምርመራ የሚኖራቸውን ተጻእኖ የሚመለከቱ ጥያቄዎች

ተ.ቁ	ጥያቄ	መልስ
23	ወደዚህ የመጡበት ምክንያት ምንድነው	1.የማህፀን በር ካንሰር ምርመራ ለማድረግ 3.ለክትባት 2.ለቤተሰብ ምጣኔ አገልግሎት 4.ለ HIV ምክር አገልግሎት 5.ለሌላ.....
24	ለማህፀንበር ቅድመ ምርመራ ለማድረግ መኖሪያ ቤትሺ ከተቋሙ ምን ያክል ይርቃል	ይጥቀሱ.....
25	ወደዚህ ጤና ጣቢያ ለመምጣት ምን አይነት መጉጉዣ ተጠቀሙ	1.በእግር 3.ታክሲ 2.በህዝብ አውቶባስ 4.በግል መኪና፣ሞተር. 5. ሌላ.
26	የማህፀን በር ቅድመ ምርመራው የት እንደሚሰጥ ያውቃሉ?	1.አወ 2.አላውቅም
27	ማህፀን በር ቅድመ ምርመራ እንዲያደርጉ ከ ባለሙያ ምክር አግኝተው ያውቃሉ?	1.አወ 2.አላውቅም

ክፍል አምስት፡ ስለማህፀን በር ካንሰር ምርመራ አጠቃቀም እና ፍላጎት የሚመለከቱ ጥያቄዎች

28	የማህፀን በር ካንሰር ምርመራ አድርገው ያውቃሉ?	አወ.....1 አይደለም.....2
29	ለጥያቄ 25 መልሱ አወ ከሆነ፣ ልምድዎ ምን ነበር?	የምርመራ ሂደቱ ህመም አለው.....1 አሳፋሪ ነበር.....2 ጊዜ ይወስዳል.....3 ከፍተኛ ገንዘብ4 ምንም አልተሰማኝም.....5
30	የማህፀን በር ካንሰር ቅድመ ምርመራ ዛሬ ለማድረግ ወስነዎል ?	አወ.....1 አይደለም.....2

		(አይደለም ከሆነ እና, ዛሬ ወይም ይህ መረጃ ከመወሰዱ በፊት ቅድመ ምርመራ ማድረግ ካልፈለጉ ወደ ክፍል 6 ይሂዱ)
31	የማህፀን በር ካንሰር ቅድመ ምርመራውን ካደረጉ፣ የምርመራ ውቴታቸው ምንድን ነው ?	ነገሩሽ.....1 ፖዘቲቭ.....2 ሌላ.....3 (የምርመራ ውቴት ፖዘቲቭ ከሆነ ወደ ጠያቂ 31 ይሂዱ)
32	በጥያቄ ቁጥር 28 ላይ (የምርመራ ውቴታቸው ፖዘቲቭ ከሆነ, ወዲያውኑ ከውጤታቸው በሂላ ህክምና(cryotherapy) አግኝተዋል ?	አወ.....1 አይደለም.....2
33	የማህፀን በር ምርመራ እና ቅድመ ህክምና አገልግሎት ምን ያክል ሰዓት ወሰደ?	ይጥቀሱ.....
34	የማህፀን በር ቅድመ ምርመራ እና ህክምና አገልግሎት ለማድረግ የተቁሙን ቁሳቁሶች እና ቦታ እንዴት አገኛሏቸው?	በቂ የሆነ ቁሳቁሶች እና ጠሩቦታ አለ.....1 መሻሻል ያስፈልገዋል.....2 አገልግሎት መስቻቦታው የተቸናነቀ ነው3 የቁሳቁስ እጠረት ይታያል.....4
35	የማህፀን በር ምርመራ እና ቅድመ ህክምና አገልግሎት አንድ ላይ በመኖሩ ደስተኛ ነሺ?	አወ.....1 አይደለም.....2
36	ይህን የማህፀን በር ካንሰር ቅድመ ምርመራ ለማድረግ ለወደፊት ትፈልጊያለሽ	አወ.....1 አይደለም.....2
37	የምርመራ አገልግሎቱን እንዲያደርጉ ለቤተሰብዎ ወይም ለሌሎች ሴቶች ይመክራሉ ?	አወ.....1 አይደለም.....2

ክፍል 6: ቅድመ ምርመራ ላለማድረግ የሚጠቀሱ ምክንያቶች

S.No	38	ቅዴመ ምርመራውን ላለማድረግ ምክንያትሽ ምንድን ነው	መልስ		
			1.አወ	2.አይደለም	3.አላውቅም
		የቅድመ ምርመራ አገልግሎት የሚሰጡ ሴት የጤና ባለሙያ ስለሌሉ			
		ከግል ጤና መስቻ ተቁማት ቅዴመ ምርመራውን ማድረግ ስለምፈልግ			
		ብቁ የጤና ባለሙያ ስለሌለ			
		ቅድመ ምርመራ የሚሰጥበት ቦታ እሩቅ በመሆኑ			
		የመጉጉዚያ ችግር ስላለ			
		ለቅድመ ምርመራ አገልግሎት የሚያስፈልገው ገንዘብ ከፍተኛ ስለሆነ			
		ባለቤቴ አይፈቅድልኝም			
		የቅድመ ምርመራ ሂደት አሳፋሪ ነው			
		የቅድመ ምርመራ ሂደት ህመም ስላለው			
		የግል ሚስጥር ስለማይጠበቅ			
		ጤናማ ስለሆንኩ			
		የማህጸን በር ካንሰር ከተገኘብኝ ብዬ ስለምፈራ			
		ቅድመ ምርመራ ለማድረግ ጊዜ የለኝም			
		ምርመራ በሚደረግ ስኣት ምቹት አይሰማኝም			

ክፍል ስምንት፡ የማህፀን በር ካንሰር ምርመራን ያደረጉ ሴቶችን ልምድ ለማወቅ የተዘጋጁ ጥያቄዎች

39	የማህፀንበርካንሰርምርመራበሚደረግልወትጊ	ህመም/ምቹትማጠትየለም....1
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	ዜሮህመምስሜትወይምምቶትማጠትእንዴት ንበር	ትንሺምቶትማጠት...2 መካከለኛህመም....3 ከባድህመም...4 ህመም የለም ...5
40	የማህፀንበርካንሰርምርመራበሚደረግለወትጊ ዜያጋጠመዎትችግር ?	ከባድደምመፍሰስ....1 ራስመሳት...2 ሆስፒታልየሚያደርስማንኛውምችግር...3
41	ከማህፀንበርካንሰርምርመራበሃላያጋጠመዎት ችግር ?	ከብልትፈሳሽመፍሰስ....1 ደምመፍሰስ...2 የብልትማቃጠል.....3 ሌላ(ይጥቀስ).....4 ምንምችግርየለም...5
42	ለቅድመህክምናአገልግሎትከፍልውስጥበነበሩ በተትጊዜግልጽየሆነመረጃአገኛተውነበር?	አወ.....1 አይደለም.....2
43	ከአሁኑ የካንሰር ምርመራ በፊት የምርመራ ውቴትዋ ፖዘቲቭ ነበር ?	አወ.....1 አይደለም.....2
44	የምርመራ እና ቅድመ ህክምና አገልግሎት ሲደረግለወት የሀፍረት ወይም የመሸማቀቅ ስሜት ተሰምትወታል?	አወ.....1 አይደለም.....2
45	የምርመራእናቅድመህክምናአገልግሎትሲደረ ግለወትይበልጥምቶትየሚስማወትነርስለ/ዶክ ተርምንቢሆኑነው?	ሴት.....1 ወንድ.....2 ሴት/ወንድ.....3
46	ለቅድመ ምርመራ የሚያስፈልገውን የገንዘብ መጠን እንዴት ያዩታል?	ከፍተኛ.....1 መካከለኛ.....2 ዝቅተኛ.....3 ምንም ወቹ የለውም/ነጻ ነው...4
47	በማህፀን በር ካንሰር ቅድመ ምርመራ አገልግሎት በሚደረግበት ጊዜ የግል ሚስጥርዎ የተጠበቅ ይመስልዎታል?	አወ.....1 አይደለም.....2
48	ለማህፀን በር ካንሰር ቅድመ ምርመራ አገልግሎት ለማግኘት ያለውን ወረፋ ብዛት (የጠበቃጊዜ) እንዴት ያዩታል?	ረጅምየጠበቃጊዜ.....1 መካከለኛየጠበቃጊዜ.....2 አጠርየጠበቃጊዜ.....3

49	የቅድመ ምርመራ ሰኛ ባለሙያውን ባህሪ እንዴት ያይታል?	በቅድመምርመራሰችውባህሪደስተኛአደላሁም1 በቅድመምርመራሰችውባህሪደስተኛነኛ2
50	የቅድመ ምርመራ ሰኛ ባለሙያው በሙያው ብቁ ነው ብለው ያምናሉ?	አወ.....1 አይደለም.....2
51	ስለ ማህፀን በር ቅድመ ምርመራ አገልግሎት ትምህርት ይሰጣል?	አወይሰጠል1 አይሰጠል.....2
52	የምርመራ ክፍሉ ንጡህ እና ምቹ ነው ብለው ያስባሉ?	በክፍሉዝግጁትደስተኛ ነኛ1 በክፍሉዝግጁት ደስተኛ አደላሁም2 ለምርመራ የተለየ ክፍል የለም.....3
53	የፕሮግራሙን አደረጃጀት በሚመለከት በአገልግሎት አሰጣጥ ላይ ሀሳብሽ ምን ድንገት ነው?	መሻሻልያስፈልገዋል.....1 ረክቻለሁ.....2 ሙሉበሙሉረክቻለሁ.....3
54	የምርመራ አገልግሎት ጠራትን በተመለከተ በጤና ባለሙያው ተገቢውን ክብር አግኝቻለሁ ብለው ያስባሉ?	አወ.....1 አይደለም.....2 አላውቅም.....3
55	በማህፀን በር ምርመራ እና ቅድመ ህክምና አገልግሎት ዙሪያ በጤና ባለሙያዎች መረጃ አሰጣጥ ደስተኛ ነሺ?	አወ.....1 አይደለም.....2 አልወሰንኩም.....3

