

Research Article

Cervical Cancer Screening Barriers Among HIV Positive Women Attending ART Clinic at Yekatit 12 Hospital Medical College, Addis Ababa, Ethiopia: A Qualitative Study

Habtimer Abi Kebede^{1,*} , **Getabalew Endazenew Bekele²** ,
Ephriam Mamo Gebrehiwot², **Garoma Kitesa²**, **Ayalign Derbew³**

¹Health Care Quality Directorate, Yekatit 12 Hospital Medical College, Addis Ababa, Ethiopia

²Public Health Department, Yekatit 12 Hospital Medical College, Addis Ababa, Ethiopia

³Educational Development Center, Yekatit 12 Hospital Medical College, Addis Ababa, Ethiopia

Abstract

Background: Cervical cancer is the most common cause of morbidity and death among female cancer patients globally, particularly in poor nations like Ethiopia. It is a preventable, non-communicable disease of public health relevance. In Ethiopia, women's acceptance of the services for cervical cancer screening and treatment is low and poorly recorded. The goal of the current study is to investigate the obstacles that HIV-positive women face while trying to use cervical cancer screening. **Objective:** To investigate cervical cancer screening barriers among HIV positive women at Yekatit 12 Hospital Medical College, Ethiopia, 2021. **Methods:** Between April and June of 2021, a qualitative study was carried out with women who tested positive for HIV and were enrolled in the ART clinic at Yekatit 12 Hospital Medical College. At the time of the study, HIV-positive women and medical professionals were purposefully chosen from an ART clinic. In all, 14 patients and 9 healthcare professionals participated in the study. A schedule for in-depth interviews were used to gather data. Analysis was done by using atlas ti computer software. **Result:** The risk factors and symptoms of cervical cancer were not well known to the respondents. Women have identified several factors that impact their use of cervical screening: inadequate knowledge of the significance of screenings, perceptions of the seriousness of cervical cancer, the separation of the screening location from ART, having conflicting concerns, and emotional barriers like anxiety about a positive result, embarrassment, and shame anticipation. These same problems were recognized by healthcare professionals as obstacles to cervical screening. **Conclusion:** This study offers extensive data on the various complex reasons why women do not participate in cervical cancer screening programs. Consequently, it is crucial to develop interventions that can address and reduce these barriers.

Keywords

Cervical Cancer, Screening, HIV, VIA, HPV

*Corresponding author: abihabtimer@gmail.com (Habtimer Abi Kebede)

Received: 9 February 2024; **Accepted:** 27 February 2024; **Published:** 13 March 2024



Copyright: © The Author(s), 2024. Published by Science Publishing Group. This is an **Open Access** article, distributed under the terms of the Creative Commons Attribution 4.0 License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution and reproduction in any medium, provided the original work is properly cited.

1. Introduction

Cervical cancer is an ailment where cells in the body grow uncontrollably. It is a malignant tumor that originates in the cervix and is a preventable disease of great public health significance. It is ranked as the second most common cancer in women and is predominantly found in developing countries, accounting for 80% of cases worldwide [1].

Global patterns indicate that developing countries undergoing rapid societal and economic transformations are experiencing an increasing burden of cancer due to the adoption of lifestyles similar to those in industrialized nations [2]. Among developing countries, cervical cancer ranks as the second most prevalent cancer following breast cancer and stands as the third leading cause of cancer-related deaths after breast and lung cancers [3]. In Sub-Saharan Africa, it represents the primary cause of cancer-related deaths in women [4]. In Ethiopia specifically, cervical cancer is the second most commonly diagnosed cancer and the leading cause of cancer-related deaths among women aged 15 to 44 [5]. In 2010, the country had approximately 29 million women aged 15 years and older who were at risk of developing

cervical cancer [5]. Each year, 7,600 women are diagnosed with cervical cancer in Ethiopia, and around 5,000 lose their lives to this disease [6].

Based on the Ethiopian Demographic Health Survey (EDHS) 2016 report, the prevalence of Human Immunodeficiency Virus/Advanced Immune Deficiency Syndrome (HIV/AIDS) among women aged 15 to 49 years in Ethiopia was 1.2%. This translates to approximately 534,000 women aged 15 years and above living with HIV in the country. These individuals belong to a particularly vulnerable group when it comes to cervical cancer, as their risk of developing pre-cancerous lesions is 10 times higher compared to uninfected women. Moreover, they are more likely to progress to invasive cervical cancer [5]. Cervical cancer exhibits a bimodal age distribution, with one peak occurring at around 30 years and another at 60 years. Generally, women in these two age groups tend to experience symptoms associated with cervical lesions. However, HIV-positive women, regardless of their age, often remain asymptomatic for cervical cancer [4].

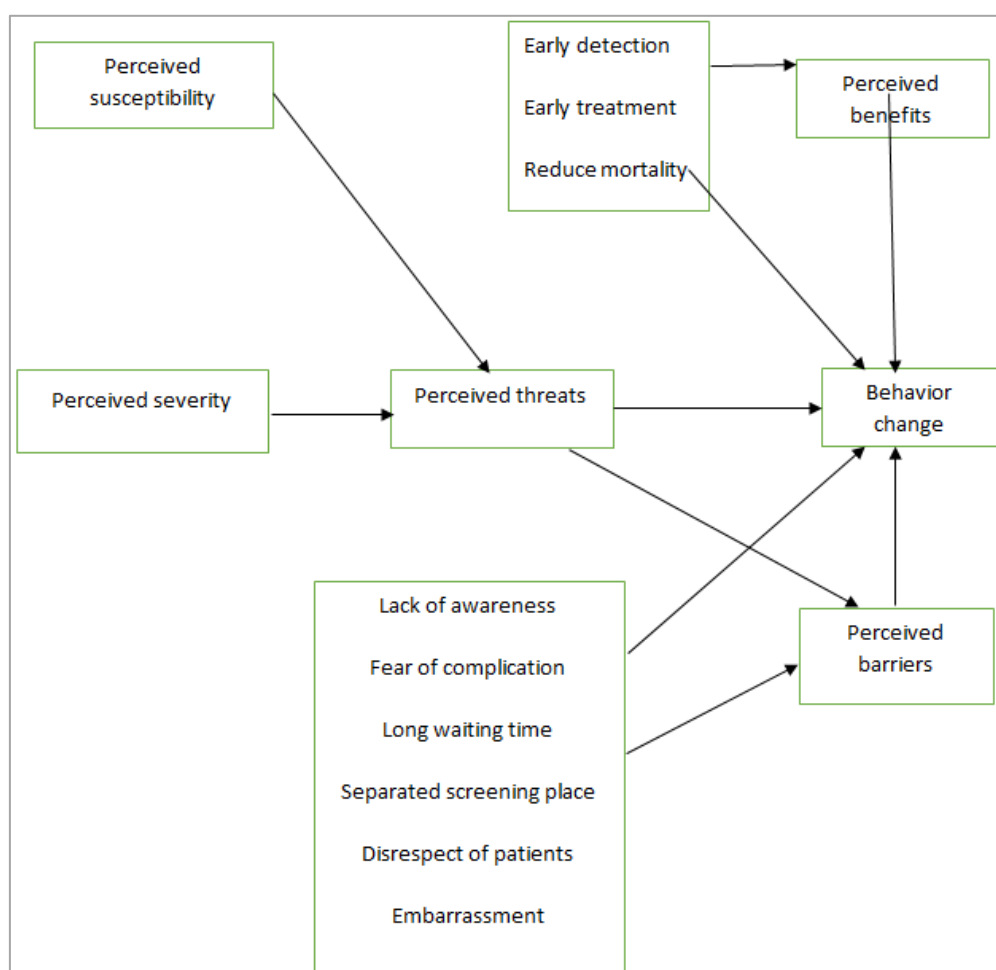


Figure 1. Theoretical framework using modified health belief model.

The only gynecologic cancer for which a screening test is available to identify the disease in its precancerous stage is cervical cancer. The World Health Organization (WHO) recommends that every sexually active woman between the ages of 30 and 49 get screened for cervical cancer at least once every five years. Regardless of age, it is recommended that women who are HIV-positive and sexually active undergo screening every three years. Ethiopia embraced the WHO's 2015 guideline, which advised women who test positive for HIV should begin screening as soon as they receive their diagnosis, regardless of age, and to rescreen every five years. The Ethiopian government has placed greater emphasis on initiatives aimed at early cervical cancer identification. To combat cervical cancer, a number of advocacy initiatives were launched by many stakeholders, including the media, professionals, academics, and development partners [6].

Screening systems are in place in industrialized nations to identify precancerous symptoms and treat them early. These programs are often based on a multi-visit, cytology-based screening methodology that includes Pap smears, colposcopy, and biopsy when needed. Such projects necessitate a high level of administration and organization [7, 15]. However, in developing nations, these screening and treatment services are typically unavailable or difficult to get, and in those cases, the programs may not be successful because of issues with logistics, quality control, or training. With an emphasis on strategies suitable for low resource settings, this short reviews the available data on a number of alternatives, including cervical cytology (Pap test), human papillomavirus (HPV) DNA testing, visual inspection with acetic acid (VIA) for screening, and cryotherapy for treatment [9, 10].

Certain facilities in Ethiopia offer cryotherapy as a therapeutic option for premalignant cervical lesions and VIA as a screening tool [11, 13]. The primary focus of cervical cancer screening services in Ethiopia is to cater to HIV-positive women due to their increased risk [8]. However, there is limited available information regarding the utilization of cervical cancer screening services in Ethiopia as a whole, including the specific study area. In order to enhance the uptake of screening services and reach a larger number of vulnerable women, including those who are HIV-positive, it is crucial to understand the factors that influence the behavior of HIV-positive women when it comes to seeking screening. Therefore, the objective of this study is to evaluate the acceptance of cervical cancer screening among HIV-positive women and identify the associated factors that may influence their decision to undergo screening.

2. Methods

2.1. Study Area and Period

The study was carried out between April and June 2021 at Yekatit 12 Hospital Medical College, a governmental teaching hospital situated in Addis Ababa, Ethiopia. Addis Ababa

serves as the capital city of Ethiopia. The Hospital Medical College has 32 departments and it has under graduate and post graduate programs. From the services it provides adult ART clinic is one of service units which has been providing comprehensive care for about 2,978 (1,841 females and 1,137 males) HIV infected peoples. Cervical cancer screening and precancerous therapy service has been started since 2018 G.C. The cervical screening clinic at Yekatit 12 Hospital Medical College is staffed by three trained healthcare providers.

2.2. Study Design

A qualitative study with a phenomenological study design was employed to investigate and understand the barriers that impede the utilization of cervical cancer screening services among HIV-positive women.

2.3. Source Population

- 1) The source population for this study consisted of all HIV-positive women who were receiving care at the ART clinic in Yekatit 12 Hospital Medical College during the year 2021.
- 2) Health professionals currently employed at the ART clinic, including physicians and nurses, were also included in the study.

2.4. Study Population

- 1) Every HIV-positive woman receiving ART regimen at Yekatit 12 Hospital Medical College adult ART clinic who did not undergo the cervical screening and
- 2) Health professionals currently working at ART clinic (both physicians and Nurses).

2.4.1. Criteria for Inclusion and Exclusion

Criteria for Inclusion:

Every woman who tests positive for HIV and has ART clinic follow-up at Y12 HMC in 2021.

2.4.2. Participants of the Study and Sampling Method

The researchers utilized a purposive sampling method to select HIV-positive women who were attending the adult ART clinic but had not undergone cervical screening at the time of the study. They communicated with case managers to identify suitable participants. In addition, health workers from various departments were also interviewed as key informants. The total number of interviewees was determined based on data saturation, which means that new information and insights were no longer emerging from the interviews. A total of 23 participants took part in the study, including 9 health professionals and 14 clients. Initially, 14 clients were

interviewed, and afterward, 9 health professionals were interviewed to gather additional supportive perspectives. The participants were informed about the study's objective and were scheduled for separate interviews with the principal investigator on a different day. They were encouraged to freely express their thoughts, describe their experiences, and provide insights related to the topic of cervical cancer screening. The interviews were recorded using audio recording devices, and the recordings were then translated and transcribed on the same day as the interview took place.

2.5. Operational Definitions

a) Perceived Susceptibility of the Disease: According to the model, individuals who perceive themselves as vulnerable to a specific health problem are more likely to engage in behaviors aimed at reducing their risk of developing that health problem.

b) Perceived Severity of the Disease: Perceptions regarding the seriousness of contracting cervical cancer or leaving it untreated are measured by assessing individuals' beliefs about the fatality and severity of cervical cancer. This perception of severity influences individuals' motivation to take preventive measures.

c) Perceived Benefit: Perceived benefits refer to an individual's evaluation of the value or effectiveness of adopting a health-promoting behavior to decrease the risk of disease. It involves the recognition that engaging in preventive actions can lead to positive outcomes, such as reduced risk of cervical cancer.

d) Perceived Barriers: Perceived barriers represent an individual's assessment of the obstacles or challenges associated with behavior change. These barriers can include factors such as lack of knowledge, financial constraints, time constraints, fear, or cultural beliefs that hinder individuals from adopting preventive behaviors for cervical cancer.

2.6. Data Collection Procedure and Analysis

Exit interviews were carried out in a designated private space within the hospital premises, ensuring confidentiality and privacy for the study participants. The timing of the interviews was scheduled to accommodate the convenience of the participants, allowing them to participate at a time that suited them best. This approach aimed to create a comfortable and confidential environment for the participants to openly share their experiences and perspectives.

Semi-structured interview guides were used during the interview process. With the participants' permission, audio recordings of every interview were made. The lead researcher conducted all of the interviews in Amharic, which were later transcribed and translated into English.

The themes are determined by using health belief model as a theoretical frame work which the analysis addressed: the perceived barrier, perceived benefit, perceived severity, and

perceived susceptibility.

Thematic analysis was used to examine the data. To begin the analysis, a list of all the topics was created, with one column for each data document, and all of the columns being on the same sheet. We selected and pasted relevant items from our data, as well as highlighted related themes. Next, we created codes, categories, and themes. The computer program Atlas.ti 8, which aids in methodically coding and classifying qualitative data, was used for the coding process.

2.7. Trust Worthiness

Credibility:

- 1) Throughout the interview, typewritten notes were made in order to cross-check the results with the audio recordings.
- 2) Colleagues and advisors examined the transcribed material and extracted concepts through the technique of peer debriefing.
- 3) Probing was used to assist the interview.

Transferability:

- 1) The plan for gathering and analyzing data is clearly laid out step-by-step.
- 2) The concepts and codes that were recovered were explained in depth using the original transcript as a guide.
- 3) Every day, all field notes, transcripts, and recorded interviews were double checked for inaccuracies, and any necessary corrections were made.

Dependability:

Colleagues and advisors examined the full strategy, including the interview guide, using an inquiry audit.

Confirmability:

Carefully translated and verbatim transcriptions of the typewritten notes and audio recording were made.

2.8. Ethical Consideration

Ethical clearance certificate was obtained from the IRB and permission letter from the Y12 HMC was taken. Ethical issues were considered in all stages of research process. Every study participant was made aware of the study objective, measure to secure confidentiality, benefits and risks of participating in the study, the option to decline or withdraw from the study, as well as the data collectors' and PI's contact details in case you have any questions. Finally written consent was taken voluntarily. The study participants' full name and addresses information were not collected. A code was used to identify each study participant.

2.9. Dissemination of the Result

The study's finding was sent as a thesis to the SPH department of Yekatit 12 Hospital Medical College. After submission, the outcome will be defended in public. Copies will be given to pertinent parties. The findings will be presented in scientific journals and conferences, if possible.

3. Result

3.1. Socio-Demographic Characteristics of Women and Health Care Provider

A total of 23 (14 clients and 9 health care professionals) took part in the in-depth interview. The women were between the ages of 22 and 49. Of them, eleven (78.6%) were married. Seventeen (74%) of the women had follow up at ART clinic for greater than 5 years. Thirteen (57%) of them attended primary education. Sixty percent (60%) had never tried any kind of family planning. Two study participants had their first sexual experience at the age of fifteen, whereas nine (38.4%) of the participants had their first sex while they

were married. Not every woman had a history of alcohol consumption and cigarette smoking.

The age of health care professionals ranges from 29-55 years. Three (33.3%), 2 (22.2%) and 4 (44.4%) of them were Medical Doctors, Public health professionals and B.Sc. holders respectively. Seven (77.8%) of health care professionals have been serving for more than two years in the ART clinic.

The analysis was done by using Atlas ti software. First the data were organized and added to the software and by exploring the data from the software initial codes were created. Then after codes were revised and combined into themes. Finally themes were presented in cohesive manner by producing report from the software.

Table 1. The themes, sub-themes and codes that was created during qualitative data analysis, Addis Ababa, 2021.

Themes	Sub-themes/Codes
Perceived Susceptibility	Risk factors
	HIV infection
	Multiple sexual contact
	Being sexually active
Perceived Severity	Poor prognosis
	1) Causes death
	2) Causes serious illness
	3) Progress rapidly
Perceived Benefit	Early detection and early treatment
	Reduce mortality and morbidity
	Minimize health cost
	Lack of awareness
	Fear of screening complications
	1) Fear of pain
	2) Fear of infection
	3) Fear of getting injured
	4) Fear of having disease
	5) Fear of infertility
Perceived Barrier	Long waiting time
	Poor counseling
	Lack of readiness
	separated screening place from ART clinic
	Disrespect of patients
	Break confidentiality
	Embarrassment

3.2. Awareness on Cervical Cancer and Cervical Cancer Screening

Regarding awareness of cervical cancer, the majority of participants said that they had been informed to get screened for the disease when they attended an ART clinic. A minority of women claimed to have learned about it via radio and television. Out of all the women, just one is unaware about cervical cancer and its screening. The majority of women described the illness as a horrible one that frequently causes extreme stress and bodily pain. A married 37-year-old woman replied as:

"...I heard from television and radio that the cancer affects the womb or ...and all parts of the birth canal..."

This claim demonstrates that individuals who were aware of the illness were not provided with correct information. When asked where they got their information, the majority of the answers were from health professionals. A small percentage of responders also knew someone who passed away from cervical cancer.

When questioned about cervical cancer screening, the majority of women frequently had no idea why it was necessary to get screened, what happened to a woman during the screening, or what the purpose of the screening was. Few people understood why screening was done. The majority of them have not heard of any screening techniques, yet they are instructed to undergo screening by medical personnel when they visit. As a result, they were ignorant of all screening techniques.

The majority of participants were unaware of the VIA. They thought it was equivalent to a straightforward vaginal examination. A forty-year-old woman says this:

"I just heard that sometimes health workers look to birth canal with metal instrument and may be for looking any health problem..."

The function of the VIA was poorly understood by those who were aware of its existence; many of them mistakenly linked the test with the identification of cervical cancer.

The majority of the moms were unaware of the significance of routine check-ups for the prevention of cervical cancer, since just four of them emphasized how important it is to do so.

The respondents weren't sure who needed to be checked. Many thought that married women could only apply for VIA.

3.3. Awareness on Cause of Cervical Cancer

The majority of interviewees were unable to articulate the cause of cervical cancer with clarity. None of the participants mentioned the human papilloma virus (HPV). While admitting their ignorance, individuals indicated a desire to learn more about cervical cancer.

Numerous inquiries concerning the primary symptoms, prevention and early detection strategies, treatment alternatives, and risk factors for cervical cancer were conducted.

The majority of responders were unsure whether cervical cancer had any risk factors. Even those who acknowledged a risk factor for cervical cancer were unable to name it accurately. Generally speaking, two of them could name at least one risk factor for cervical cancer. These two women identified several risk variables, including multiple sexual partners, early initiation of sexual activity, and sexually transmitted infections.

One woman surely expressed her believe as poor hygienic practice as a risk factor. She stated as follows:

"....I think personal hygiene is a risk factor for the cancer because we women's need to clean ourselves including the genital area especially during menstruation.... if we fail... there will be problem."

Participants frequently held the belief that cervical cancer exclusively affected women if there is family history and few of them related having HIV with cervical cancer.

The majority of women perceive themselves as being at a high risk of developing cervical cancer due to their HIV infection.

3.4. Perceived Susceptibility

Being HIV positive is commonly thought as risk for getting cervical cancer which is repeatedly mentioned by the respondents in this study.

A 39 years old woman expressed as:

"...I belief that cervical cancer is becoming a significant problem now a days and that anyone could be at risk of cervical cancer but we HIV positive women are at greater risk of having cervical cancer because we have weak immunity."

The health professionals mentioned that HIV infected-women have a greater risk for cervical cancer in their life time related with similar ways of transmission and cervical cancer is also classified as HIV defining illness.

"...They are more risk group and the transmission of the cause of CCA is relatively similar with HIV and they may have multiple sexual partner...and cca is HIV defining illness."

3.5. Perceived Severity

Cervical cancer is considered as a serious illness which can rapidly progressed and ends up with death irrespective of any medical intervention.

A 34 years old woman said:

"...While we hear the word cancer we think that it is a serious illness and has no medicine to cure it... rapidly kill us..."

Other woman expressed as she knew someone who is died of cervical cancer within short period of diagnosis.

Cervical cancer screening is part of care components of chronic HIV chronic follow up to detect the precancerous lesion in HIV positive women. so treatment is indicated for

those positive precancerous lesion before it changed to cancer stage. If it became a cancer it is difficult to treat the patient and the prognosis is poor.

One health professional explained as:

"...To detect the case early and to treat it before becoming advanced and metastasized to other body parts. If it became advanced and distributed it is difficult to treat and may end up with death." (A medical Doctor working at ART clinic in Y12HMC.)

3.6. Perceived Benefits of Cervical Cancer Screening

Participants were asked if they felt that cervical cancer screening would be suitable for HIV positive women who were seemingly healthy or symptom-free in order to gauge familiarity with the idea of screening as a preventive measure. In the case of women without clinical symptoms, over half of the participants believed that screening was an essential practice. They think that if cervical cancer is not identified and treated early on, it will worsen and, like other cancers, may result in death.

A 43 years old married women said:

"...For knowing the health condition of one self is important and if there is any problem to get treatment early. If we are not screened we could not know anything about the health of ourselves which may cause death after it getting worse without knowing it"

Only three respondents believed that cervix alterations could be detected by cervical cancer screening before they develop into cancer. Other participants thought that if cervical abnormalities were discovered early on through cervical cancer screening, they could be easily treated.

Having HIV infection is commonly perceived as it needs screening in this specific group as they have weak immunity which prone them to opportunistic infections.

One woman stated like:

"...we HIV positive women need screening than others because we have very weak immunity and we may be attacked by many diseases."

Cervical cancer is not considered curable by modern medicine by some respondents; they thought that using traditional healers could help treat cancer.

A lady of thirty-six stated:

"...this disease is less likely to be cured with medicine once developed, no need of screening as I heard from other people that almost all die once they develop the cervical cancer"

3.7. Perceived Barriers to Cervical Cancer Screening

The medical staff has talked about the difficulties they had in providing HIV women who came to the clinic with screening and treatment services. Majority of the women who come

to ART Clinic refused to take screening due to due to a dearth of specific details regarding the benefit of screening, how it going to be done and availability of treatment if there is precancerous lesion. One health professional explained as:

"The first thing that I consider like a barrier is lack of awareness about the seriousness of the cervical cancer and about the benefit of the screening. This is due to the health care providers did not counsel the patient in detail about the diseases, about the procedure, the benefits of screening and the presence of treatment for precancerous lesion." (A Medical Doctor working at ART clinic).

A common perception among women of all ages and educational backgrounds is that cervical cancer screening is often painful and uncomfortable, especially during the first experience. This concern was consistently raised by many women. Despite acknowledging the importance of undergoing screening, a significant obstacle for the majority of women was the fear associated with the test. The screening procedure, which involves the use of a perceived painful metallic instrument, further contributed to their apprehension and acted as a deterrent for seeking screening services.

A 38 years elderly married lady expressed as:

"I heard that the examination is done by metal instrument by inserting to the womb. so I am afraid of pain during the examination which may injured my womb."

Fear of cancer or anxiety over the test's outcome was frequently mentioned by the respondents across each age group as something that had put them off attending screening.

A 33 years old married woman said:

"...and also if they tell me additional problem on current illness I did not able to survive because of stress."

The place where cervical screening is done is very far from ART clinic which hinders to get screening. One health professional explained as:

"...and also cervical cancer screening is very far and it is not easily accessible for clients and they think that they may lose additional time there. I saw that most of the time patients associate the disease with their current illness and they tend to refuse while we send them to cervical cancer screening clinic due to feeling of break confidentiality of their current illness as it separately placed from ART Clinic." (BSc nurse working at ART).

Pelvic examinations are repeatedly mentioned as a significant cause of humiliation, anxiety, and invasion of privacy and it is difficult for them to expose their private parts even if they perceived the screening is important.

A 32 years old woman said:

"I don't want anybody else to look at my own body or touch my own body, that's my own, you know that's my own personal thing so, that could be one of the reasons that's putting me off...this is difficult for me that is why I gave birth my baby at home"

Furthermore, it has been discovered that a number of variables, such as cultural, socioeconomic, and views on the illness and the healthcare system, influence the behavior of

those seeking treatment for cervical cancer. Among them, a few stated it as:

"...I don't have information about the availability of the service here in this hospital by free"

"...I am too busy working in the house and fields to take additional time for that service ...time shortage"

Some interviewees felt there should be hurdles to accessing health services, even if they would have preferred to do so as soon as symptoms and indicators started to show. Among the barriers was the lengthy line to take the test.

One woman said:

"...I will be get screening if I feel not good in my health condition...and also I do not want to stay long time for screening...additional to this ART service"

Cost of treatment is frequently mentioned as a barrier by considering it unaffordable as and explained by the following statements.

"...I've heard that all patients are referred overseas because of the high cost of screening and treatment. I do not wish to use the cervical cancer screening service because, even if I am screened, the condition will still affect me more than the disease..."

"....I heard that any cancer service is costly and are referred outside Ethiopia"

Lack of readiness for the screening is repeatedly mentioned by the respondents that they told to have a screening without readiness as they come to ART clinic for follow up to their ART drugs.

One participant mentioned as:

"...the health professionals should give counseling in detail and appoint the patient in other day while the patient get ready. Always they said you should have get screening today. And this is difficult for us without getting ready."

As all health care services patients/clients need respect from health care providers. so disrespect is one barrier to hinder to cervical screening.

A 49 years old married woman explained as:

"...there is ignorance from health care professionals to counsel the patients in proper way. They did not respect their clients. If clients or patients not respected by the health professionals they tend to refuse the examination because afraid of exposing their body to whom he or she disrespected her."

4. Discussion

The perception and barriers surrounding cervical cancer screening are investigated in this study. The majority of participants thought cervical cancer could be avoided and were unaware of the symptoms and risk factors associated with the disease.

In this study, health professionals' health education or counseling was the most common source of information about cervical cancer, followed by the media (radio and television). According to other research, mass media and ongoing

health education are two effective ways to raise public awareness and encourage the uptake of cervical cancer screenings [16-19].

Additionally, a significant percentage of participants believed that cervical cancer is always fatal despite medical intervention and that it kills quickly. Meanwhile, some participants were unaware that cervical cancer can be cured when detected early. Therefore, in order to raise knowledge about cervical cancer treatment, tailored novel activities that are accepted locally are required.

This study demonstrated the significance of beliefs in shaping participants' perceptions of their risk of developing cervical cancer. The majority of participants thought that a person's family history of cancer was the most significant predictor of developing cervical cancer. On the other hand, HIV infection is linked to modes of transmission and is thought to increase the risk of developing cervical cancer. Research has also revealed the existence of myths and cultural beliefs regarding cancer. Cultural norms have hindered health-seeking for cervical cancer and decreased VIA usage [20, 21].

This study showed that despite their fatalistic views, the participants nevertheless believed that other factors could affect a woman's probability of developing cervical cancer. Despite the fact that HPV was not mentioned, several people believed that infections increased the risk of cervical cancer.

Despite their ignorance of the effects of screening, the ladies think it is beneficial since it will enable those who are affected to get help early. Numerous studies have also revealed that women have inadequate awareness about cervical cancer [21-23].

Because they were unaware of the services or where to get them, they were not utilizing them. The ladies in the study cited poor counseling during their visits as one of the main contributing causes to their lack of understanding of the screening; some people mistakenly believe that these services are only available to married individuals. Furthermore, individuals who are in good health tend to prioritize other issues above preventive services. In other studies, there are still instances where individuals had a lack of awareness or knowledge about the availability of screening [12, 14].

This study also revealed that separate screening clinic from ART clinic is one barrier for not utilizing the screening assumed to cause long waiting time and break confidentiality while they visit other health care providers other than they know previously. And also disrespect of patients by health professionals make patients or clients not willing to have screening but not mentioned in other studies.

The way a person feels about their risk of developing cervical cancer can influence their screening habits. Numerous women stated that they felt it was essential to get a VIA test because they were personally susceptible to cervical cancer. Other hurdles that have been detected include: shame, not being prepared, feeling hurt by penetration, fear of infection, worry of infertility, fear of malignancy, and not making screening a priority, which has also been noted in other studies [23-25].

5. Strength and Limitation of the Study

5.1. Strength of the Study

It is a qualitative study with phenomenological design and in-depth interview used for data collection which helps to get and understand the detailed individual experience for better improvement on CCS.

5.2. Limitation of the Study

The study was carried out in facility level and primary health care were not included in this study.

Concerns about social desirability also arose from several delicate topics, such the age of one's first sexual encounter and a report on lifetime partners, which might not have received enough attention.

6. Conclusion and Recommendation

6.1. Conclusion

According to this study, women have relatively little knowledge about cervical cancer screening. The results showed that a number of intricate issues were keeping women from taking advantage of the cervical cancer screening. In order to increase knowledge and comprehension of cervical cancer and encourage women to use the program, creative, culturally conscious, and community-based interventions are required.

6.2. Recommendation

The research's synthesized result indicates numerous issues and gaps in the study's conclusions. Therefore, in an effort to lessen those issues, we sent along the following suggestions:

At Health Facilities and health professionals:

- 1) Health facilities need to have integrated screening service with ART clinic for screening and treatment of cervical lesions suspected to being precancerous.
- 2) Health establishments should perform health education and awareness creation related cervical cancer.
- 3) Educating women about cervical cancer and those who received therapy for precancerous cervical lesions about the condition.
- 4) It is recommended that greater focus be placed on raising knowledge about cervical cancer screening at every point of service delivery in healthcare facilities.

Abbreviations

ACA: American cancer association
ACS: American Cancer Society
CCS: Cervical Cancer Screening

CI: Confidence Interval
CSA: Central Statistical Agency
ECA: Ethiopia Cancer Association
EDM: Early Detection Method
GLOBOCAN: Global Burden of Cancer
HC: Health Center
HBM: Health Belief Model
HPV: Human Papilloma Virus
LARC: International Agency for Research of Cancer
LRCs: Low Resource Countries
MOH: Ministry of Health
RHB: Regional Health Bureau
ROC: Reproductive Organ Cancer
SPH: School of Public Health
WHO: World Health Organization
US: United State
VIA: Visual Inspection with Acetic Acid
Y12HMC: Yekatit 12 Hospital Medical College

Acknowledgments

We really appreciate Yekatit 12 Hospital Medical College for granting us permission to conduct this study. In addition, the researchers would like to thank everyone who helped make this research possible as well as the study participants.

Authors' Contributions

Each author contributed significantly to the work reported, whether it was through ideation, study design, execution, data acquisition, analysis, and interpretation, or in all of these areas; they all helped draft, revise, or critically review the article; they approved the final version that was published; they all agreed on the journal to which the article was submitted; and they all agreed to take responsibility for the work in its entirety.

Permission for Publication

Since this manuscript lacks specific data, such as photographs or videos, consent to publish does not apply.

Data Availability Statement

The research outcome was derived from the collected data and subjected to analysis using the specified techniques and resources. Extra files are not present. Upon request, the original data supporting this conclusion will be made available at any time.

Conflicts of Interest

The authors declare no conflict of interest.

References

- [1] Asseffa NA. Cervical cancer: Ethiopia's outlook. *J Gynecol Womens Health*. 2017; 5(2): 555660.
- [2] Eshete M, Abdulwuhab Atta M, Yeshita HY. Cervical Cancer Screening Acceptance among Women in Dabat District, Northwest Ethiopia, 2017: An Institution-Based Cross-Sectional Study. *Obstetrics and Gynecology International*. 2020; 2020.
- [3] Solomon K, Tamire M, Kaba M. Predictors of cervical cancer screening practice among HIV positive women attending adult anti-retroviral treatment clinics in Bishoftu town, Ethiopia: the application of a health belief model. *BMC cancer*. 2019; 19(1): 989.
- [4] FMOH, National Cancer Control Plan 2016–2020. Addis Ababa DISEASE PREVENTION AND CONTROL DIRECTORATE, editor DIRECTORATE DPAC. 2015.
- [5] Csa I. Central statistical agency (CSA)[Ethiopia] and ICF. Ethiopia demographic and health survey, Addis Ababa, Ethiopia and Calverton, Maryland, USA. 2016.
- [6] Hailemariam T, Yohannes B, Aschenaki H, Mamaye E, Orkaido G, Seta M. Prevalence of cervical Cancer and associated risk factors among women attending cervical Cancer screening and diagnosis Center at Yirgalem General Hospital, Southern Ethiopia. *J Cancer Sci Ther*. 2017; 9(11): 730-5.
- [7] Nega AD, Woldetsadik MA, Gelagay AA. Low uptake of cervical cancer screening among HIV positive women in Gondar University referral hospital, Northwest Ethiopia: cross-sectional study design. *BMC women's health*. 2018; 18(1): 87.
- [8] FMOH, Guideline for Cervical Cancer Prevention and Control in Ethiopia. 2015.
- [9] Bird Y, Obidiya O, Mahmood R, Nwankwo C, Moraros J. Human papillomavirus vaccination uptake in Canada: a systematic review and meta-analysis. *International journal of preventive medicine*. 2017; 8.
- [10] Belayneh T, Mitiku H, Weldegebreel F. Precancerous cervical lesion and associated factors among HIV-infected women on ART in Amhara Regional State, Ethiopia: A hospital-based cross-sectional study. *International Journal of Health Sciences*. 2019; 13(3): 4.
- [11] Kassie AM, Abate BB, Kassaw MW, Aragie TG, Geleta BA, Shiferaw WS. Impact of knowledge and attitude on the utilization rate of cervical cancer screening tests among Ethiopian women: A systematic review and meta-analysis. *Plos one*. 2020; 15(12): e0239927.
- [12] Modibbo FI, Dareng E, Bamisaye P, Jedy-Agba E, Adewole A, Oyeneyin L, et al. Qualitative study of barriers to cervical cancer screening among Nigerian women. *BMJ open*. 2016; 6(1).
- [13] Getachew S, Getachew E, Gizaw M, Ayele W, Addissie A, Kantelhardt EJ. Cervical cancer screening knowledge and barriers among women in Addis Ababa, Ethiopia. *PloS one*. 2019; 14(5): e0216522.
- [14] Beining RM. Screening for cervical cancer: an exploratory study of urban women in Tamil Nadu, India. 2012.
- [15] Kumar H, Tanya S. A study on knowledge and screening for cervical cancer among women in Mangalore city. *Annals of medical and health sciences research*. 2014; 4(5): 751-6.
- [16] Ezechi OC, Gab-Okafor CV, Ostergren PO, Pettersson KO. Willingness and acceptability of cervical cancer screening among HIV positive Nigerian women. *BMC Public Health*. 2013; 13(1): 1-8.
- [17] Ezechi OC, Gab-Okafor CV, Ostergren PO, Pettersson KO. Willingness and acceptability of cervical cancer screening among HIV positive Nigerian women. *BMC Public Health*. 2013; 13(1): 46.
- [18] Rosser JI, Njoroge B, Huchko MJ. Knowledge about cervical cancer screening and perception of risk among women attending outpatient clinics in rural Kenya. *International journal of gynaecology and obstetrics: the official organ of the International Federation of Gynaecology and Obstetrics*. 2015; 128(3): 211-5.
- [19] Belete N, Tsige Y, Mellie H. Willingness and acceptability of cervical cancer screening among women living with HIV/AIDS in Addis Ababa, Ethiopia: a cross sectional study. *Gynecologic oncology research and practice*. 2015; 2(1): 1-6.
- [20] Shiferaw N, Brooks MI, Salvador-Davila G, Lonsako S, Kassahun K, Ansel J, et al. Knowledge and Awareness of Cervical Cancer among HIV-Infected Women in Ethiopia. *Obstet Gynecol Int*. 2016; 2016: 1274734.
- [21] Mwanahamuntu MH, Sahasrabuddhe VV, Blevins M, Kapambwe S, Shepherd BE, Chibwesha C, et al. Utilization of cervical cancer screening services and trends in screening positivity rates in a 'screen-and-treat' program integrated with HIV/AIDS care in Zambia. *PloS one*. 2013; 8(9): e74607.
- [22] Belglaiaa E, Souho T, Badaoui L, Segondy M, Pr  t  t J-L, Guenat D, et al. Awareness of cervical cancer among women attending an HIV treatment centre: a cross-sectional study from Morocco. *BMJ open*. 2018; 8(8): e020343.
- [23] Gatumo M, Gacheri S, Sayed AR, Scheibe A. Women's knowledge and attitudes related to cervical cancer and cervical cancer screening in Isiolo and Tharaka Nithi counties, Kenya: a cross-sectional study. *BMC Cancer*. 2018; 18(1): 745.
- [24] Emru K, Abebaw T-A, Abaerei AA. Role of awareness on cervical cancer screening uptake among HIV positive women in Addis Ababa, Ethiopia. A cross-sectional study. 2019.
- [25] Tchounga B, Boni SP, Koffi JJ, Horo AG, Tanon A, Messou E, et al. Cervical cancer screening uptake and correlates among HIV-infected women: a cross-sectional survey in C  te d'Ivoire, West Africa. *BMJ open*. 2019; 9(8): e029882.