



**ADDIS ABABA UNIVERSITY COLLEGE OF HEALTH SCIENCES
SCHOOL OF PUBLIC HEALTH**

**Assessment of Ethical Issues Among Women Attending Cervical Cancer
Screening in Public Health Facilities, Addis Ababa, Ethiopia: A Cross-
Sectional Study**

By: Yeelshaday Solomon (BSc)

Advisors:

Dr. Muluken Gizaw (PhD)

Dr. Fasil Merawi (PhD)

A Research Thesis Submitted to the Graduate Program of Addis Ababa University, College of Health Sciences and School of Public Health, in Partial Fulfillment of the Requirements for the Degree of Master of Public Health in the Department of Epidemiology and Biostatistics, Health Research Ethics Specialty

**Date: October 2024
ADDIS ABABA, ETHIOPIA**

APPROVED BY EXAMINING BOARD

I hereby certify that I have read and evaluated the topic entitled, "Assessment of Ethical Issues Among Women Attending Cervical Cancer Screening in Public Health Facilities, Addis Ababa, Ethiopia: A Cross-Sectional Study," which was prepared under my guidance. I recommend it to be submitted as fulfilling the thesis requirements.

Dr. Muluken Gizaw (PhD)

Primary Advisor

Signature:

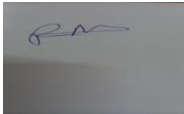
Date: 03/10/2024



Dr. Fasil Merawi (PhD)

Secondary Advisor

Signature



Date: 03/10/2024

As a member of the board of examiners of the MPH thesis open defense examination, I certify that I have read and evaluated the thesis and examined the candidate Yeelshaday Solomon. I recommend that the thesis be accepted as fulfilling the thesis requirements for the degree of Master of Public Health in Epidemiology and Biostatistics.

Internal Examiner:

Signature: _____

Date: __/__/__

External Examiner:

Signature: _____

Date: __/__/__

Acknowledgment

I would like to express my sincere gratitude to my advisors, Dr. Muluken Gizaw and Dr. Fasil Merawi, for their invaluable guidance and support throughout the process of developing this research thesis. They have been incredibly generous with their time and expertise, providing me with constructive feedback and insightful suggestions. Their encouragement to pursue my research interests and explore new ideas has been deeply appreciated. I feel very fortunate to have had them as my mentors.

I would also like to thank the staff and faculty of the Department of Biostatistics and Epidemiology at Addis Ababa University for their assistance and cooperation. I greatly appreciate the opportunity to learn from their knowledge and experience, which has been instrumental in shaping my academic journey

Acronyms

1. DNA	Deoxyribonucleic acid
2. GLOBOCAN	Global Cancer Observatory
3. HDI	Human development index
4. HIC	High income countries
5. HPV	Human papilloma virus
6. LIC	Low-income countries
7. MIC	Medium income countries
8. Pap test	Papanicolaou test
9. VHIC	Very high-income countries
10. VIA	Visual inspection with acetic acid

Table of Contents

Abstract.....	1
1. Introduction.....	2
1.1 Background	2
1.2 Problem statement	3
1.3 Significance of the Study	4
2. Literature review	5
2.1 Ethical Issues Related to Informed Consent	6
2.2 Ethical Issues Related to Confidentiality	7
2.3 Ethical Issues Related to Privacy.....	7
2.4 Factors for Ethical Concerns	8
2.5 Client Satisfaction with Cervical Cancer Screening Services.....	8
3. Conceptual framework.....	10
4. Objectives	11
5. Methods	12
5.1 Study Area.....	12
5.2 Study Design	12
5.3 Study Period	12
5.5 Inclusion Criteria	12
5.6 Sample Size	12
5.7 Sampling Method	13
5.8 Study Variables	14
5.9 Data Collection Tool and Procedure.....	14
5.10 Data Quality Management	14
5.11 Data Analysis.....	14
5.12 Operational Definitions	15
5.13 Ethical Considerations	15
5.14 Plan of Dissemination	15
6. Results.....	16
7. Discussion.....	24
8. Strengths and Limitations	27
9. Conclusion	28
10. Recommendations	29

11. References30
Annexes33
Annex 133
Annexes 2.....35
Annexes 3.....37
Annexes 4.....38

Abstract

Background: Cervical cancer is the fourth leading cause of cancer deaths among women, resulting in 350,000 deaths worldwide in 2022. In Ethiopia, it is the second most common cancer, with 8,168 cases reported. Screenings like visual inspection with acetic acid (VIA) are essential for early detection, but challenges related to informed consent, privacy, and confidentiality persists. This study aims to assess key ethical issues in cervical cancer screening practices to enhance these programs.

Objectives: To assess ethical issues among women attending cervical cancer screening in public health facilities in Addis Ababa.

Method: A cross-sectional study was conducted at selected governmental health centers and referral hospitals, involving 422 women undergoing cervical cancer screening. Data analyzed using SPSS Statistics 27. Descriptive analyses assessed frequencies of privacy, confidentiality, and informed consent issues, while chi-square tests examined relationships among variables.

Results: Participants reported high satisfaction, with 97.4% noting positive interactions with health workers and 98.6% receiving clear information. However, 5% experienced privacy concerns during examinations, and 3.3% reported unauthorized information disclosure. Significant associations were found: marital status influenced confidentiality assurance ($p = .010$), facility type affected confidentiality ($p < .001$), and both age ($p = .005$) and employment status ($p = .022$) impacted information clarity.

Conclusion: High satisfaction with cervical cancer screening exists in Addis Ababa, but privacy and confidentiality concerns remain.

Recommendation: Enhance ethical practices through improved privacy measures, provider training, and patient involvement; use qualitative research to assess impact.

Keywords: Ethical issues, Privacy, Confidentiality, Informed consent, Cervical Cancer Screening, Cervical Cancer.

1. Introduction

1.1 Background

Cervical cancer is a major public health issue and ranks as the fourth most frequent cause of cancer-related deaths among women worldwide. In 2022, there were 350,000 cervical cancer-related deaths and 660,000 new cases globally. In Africa, there were 125,699 new cases, accounting for 18.5% of the total, while Sub-Saharan Africa saw 118,013 new cases, representing 23.5% of all cancers in women. In Ethiopia, it is the second most common cancer, with 8,168 cases, representing 15.5% of all cancers. The age-standardized incidence rate in Ethiopia is 22.3%, with a mortality rate of 16.8% (1).

Cervical cancer screenings are crucial for identifying early-stage cancer and precancerous lesions, enabling timely intervention. In Ethiopia, the primary screening methods include visual inspection with acetic acid (VIA), the Pap test, and HPV co-testing. Although cytology faces challenges due to the need for specialized resources and trained personnel, VIA is recommended for women aged 30 to 49(2). The Ministry of Health has expanded the availability of VIA screening, now offered at over 1,400 hospitals and health centers across the country (3).

Health education for patients, providers, and communities is vital for informed decision-making regarding screening and treatment, with patient confidentiality being a key concern(2). Prior to cervical cancer screening, it is important to have a thorough discussion with each woman about the procedure's goal: detecting early signs of cancer and precancerous changes for timely intervention. Ensure explicit consent is obtained, and reassure the patient that her privacy will be maintained throughout. Clearly explain how results will be communicated and outline any required follow-up actions. During the procedure, keep the patient informed about each step to reduce anxiety, and describe what to expect afterward, including minor spotting or cramping. Effective counseling helps patients understand the disease, the tests involved, and the treatment options, enabling them to make well-informed decisions (4-6).

Cervical cancer screening faces ethical challenges related to informed consent, privacy, and confidentiality.(7). A study in Oromia, Ethiopia, highlighted privacy issues in some facilities, emphasizing the need for separate, private rooms to maintain privacy and confidentiality(8). In Addis Ababa, while participants recognized the benefits of screening, many lacked detailed knowledge about the procedure, with some confusing it with other tests. One respondent, a 35-year-old postpartum mother, noted, "I heard about it but don't have detailed information. It seems to be a pregnancy follow-up procedure."(9). Addressing these concerns is crucial for improving the effectiveness and acceptance of cervical cancer screening programs.

1.2 Problem statement

The ethical problems surrounding informed consent, client privacy, and confidentiality affect how widely cervical cancer screening services are accepted and used. According to reports, one of the main reasons for women's nonattendance at screenings is a lack of privacy, particularly when there is unnecessary exposure of private areas in front of male healthcare professionals. This could negatively impact women's trust and participation in screening programs. The gender preferences of attending medical staff may also influence attendance. Concerns about the confidentiality of medical information are another significant factor preventing clients from attending cervical cancer screenings. This aligns with findings from several previous studies, which have shown that the inability to maintain the confidentiality of test results during screening serves as a barrier to the uptake of screening services .While some women felt the process was coercive, others were more willing to take the tests and readily approved the procedure. However, some women may not accept the screening test due to a lack of information, which hinders their understanding of the process (10). Additionally, there was a challenge in determining whether taking a recommended test was truly voluntary(11).

The literature does not provide a thorough analysis of the ethical issues surrounding cervical cancer screening in Ethiopia. Previous research has primarily focused on individual, societal, and health system barriers, with insufficient attention given to ethical concerns and individual preferences. Although efforts have been made to address these challenges at various levels, ethical issues may still contribute to the low uptake of screening services. Therefore, evaluating ethical concerns is crucial to understanding these obstacles and implementing interventions aimed at increasing uptake, while providing patient-centered services. It is essential to understand the ethical concerns surrounding cervical cancer screening in Ethiopia.

1.3 Significance of the Study

The assessment of ethical concerns surrounding cervical cancer screening in Ethiopia will contribute to the body of knowledge, both in general and specifically regarding the barriers to accessing screening services. This study aims to address the current research gap on these issues and can serve as a foundational resource for future research and interventions related to cervical cancer screening. Understanding the ethical concerns will aid in planning strategies to mitigate these problems, which is crucial for an effective healthcare system. By ensuring that clients are satisfied with the services, healthcare professionals can be held accountable for their roles, ultimately increasing the uptake of cervical cancer screening services.

2. Literature review

In 2020, close to 60% of all cases of cervical cancer were estimated to occur in Asia, followed by Africa at 20%, Europe and Latin America at 10% each (12). In 2018, cervical cancer was the second most diagnosed cancer in Africa, with 119,284 new cases reported. In Sub-Saharan Africa, 111,632 new cases of cervical cancer were recorded, resulting in a death rate of 68%, making it the region with the highest number of cases in Africa (13, 14). The incidence of cervical cancer exhibits a distinct socioeconomic gradient, decreasing as the Human Development Index (HDI) rises. In high-income countries (HICs), prompt treatment, high-quality screening, and aftercare services are regularly offered. To date, most nations making progress in reducing the incidence and mortality of cervical cancer have high Human Development Index (HDI) scores. Most cases and deaths occur in low- and middle-income countries (LMICs), where progress in reducing incidence and mortality has been slow. Several countries have reported increases in incidence or mortality rates in the last ten years, resulting in a disproportionately large burden in numerous LMICs. According to the Global Cancer Observatory (GLOBOCAN), in 2020, the global age-standardized mortality rates (per 100,000 women) were estimated as follows: low-income countries (LICs) - 19.8, medium-income countries (MICs) - 10.4, high-income countries (HICs) - 6.5, and very high-income countries (VHICs) - 3.1. Additionally, low-income countries reported 81,922 incidences, medium-income countries had 182,866 cases, high-income countries reported 240,400 incidences, and very high-income countries had 98,675 cases (12). Cervical cancer has physical, psychosocial, and economic impacts on the individual patient, their family, and the community. These effects include treatment expenses, job loss, decreased income, and changes in household responsibilities. Overall, cervical cancer affects women at a socioeconomic level, which can lead to dramatic impacts on living conditions, including pushing individuals into deeper poverty (15). In nearly half of the domains assessed, survivors of cervical cancer reported reduced sexual satisfaction and dysfunction. Additionally, the quality of life for these patients was compromised, with the most common symptoms being fatigue and pain (16).

Cervical cancer screening decreases the potential incidence, morbidity, and mortality of the disease. Evidence shows that it can reduce the risk of a woman developing cervical cancer by 80% (17, 18). If women begin cervical cancer screening at age 21 and continue at least once every 3 to 5 years, developing countries can prevent up to 75% of cervical cancer cases. Unfortunately, in developing countries, around 60% of women with cervical cancer have never undergone cervical screening. In Ethiopia, only 1% of age-eligible females receive cervical cancer screenings, and only 10% of women have had pelvic examinations; the remaining 90% have never had this examination (14).

It is not feasible to use cytology-based screening as the primary modality in sub-Saharan Africa due to its expense, sensitivity requirements, and the need for specialized laboratories and technicians. Additionally, it involves intricate follow-up procedures. When feasible, testing for the human papillomavirus (HPV), the causative agent in almost all cases of cervical cancer, is advised. HPV DNA testing is the most objective and sensitive screening approach and it has been demonstrated to reduce cervical cancer

mortality in low-resource settings. In situations where HPV testing is prohibitively expensive, visual inspection using acetic acid (VIA) is a suitable substitute (19). The Ministry of Health (MOH) and Regional Health Bureaus (RHBs) are strengthening current VIA and cryotherapy services, bolstering new technologies (such as thermal ablation), and supporting the creation of job aids, patient education materials, referral manuals, and mentoring guidelines for cervical cancer prevention (20).

2.1 Ethical Issues Related to Informed Consent

Respect for autonomy is the foundation for participation in cancer screening. Since the effectiveness of a program depends on the degree of participation, it is critical that information provided is relevant, easy to understand, tailored to the clients' needs, sufficiently detailed with "thorough explanations" to meet each person's needs (depending on health status and expected test outcomes), interactive, and offered in a friendly environment. This approach helps earn women's trust, empowering them to make meaningful decisions (10, 21).

Some clients may arrive with a fixed mindset, while others might find it challenging to focus on the information provided, leading to a feeling of "I don't have a choice; I'm doing this because the doctor said so." A few individuals perceived that the doctor was "pressuring" them to undergo tests, while others may comply because they are already too weak and in need of assistance to manage their symptoms. As a result, it becomes challenging to determine whether taking a suggested test is genuinely voluntary (11).

In Nepal, women often have less power and autonomy than men when it comes to making decisions about their health care. They frequently need to consult their husbands before accepting any treatment. Illiteracy has been reported to prevent nearly half of Nepalese patients from properly understanding informed consent. Women may also be unable to accept the screening test due to a lack of information about the procedure (10). Studies show that the negative attitudes of healthcare workers, particularly nurses, pose a significant barrier to the use of cervical screening programs. The attitudes of healthcare professionals discourage individuals from utilizing screening services. Participants in another study echoed this sentiment, stating that medical staff failed to create a comfortable atmosphere and did not provide necessary information or services (22). A study in Ghana indicated that one reason for reluctance to use the screening service is the unwelcoming demeanor of some medical staff. As one respondent put it: "If health providers are not friendly... I am not sure I will go there for screening" (respondent who had never screened, 31 years old) (23).

Healthcare providers are often perceived as lacking effective communication skills and empathy, which makes patients uncomfortable and discourages them from seeking preventive screenings. One participant expressed, "The nurse should talk to the patient and make verbal communication, not act like a robot, do her work, and leave," highlighting the absence of empathy and genuine interaction during medical encounters. This deficiency is further emphasized by the statement, "The health centers are defective in many aspects, and visiting them has no positive effect at all," reflecting the dissatisfaction and disheartening experience many women face. Consequently,

participants feel that the current system offers little support and value, making the entire process ineffective and unappealing (24).

2.2 Ethical Issues Related to Confidentiality

Several factors impede screening for cervical cancer, particularly issues surrounding confidentiality of medical information and privacy. This is consistent with findings from previous studies that have established that the inability to maintain the confidentiality of test results, rude behavior by some healthcare personnel, and privacy concerns during screening serve as barriers to the uptake of screening services.

Some women believe that the unfriendly attitudes of certain health personnel, coupled with concerns about the privacy of their medical information, are significant factors influencing their decision to undergo cervical cancer screening and treatment. These concerns can create obstacles to screening and treatment, leading to negative consequences for confidentiality. Trust in caregivers—especially those known personally—to keep personal information private is perceived as essential for accepting the procedure (10)

2.3 Ethical Issues Related to Privacy

A study in Ghana identified several institutional-level factors that impede the uptake of cervical cancer screening and treatment. These factors included concerns about patient privacy when seeking medical attention, the attitudes of healthcare professionals toward patients, and perceptions of incorrect diagnoses by medical staff. Some respondents who had never undergone screening expressed worries about the lack of privacy and the behavior of certain medical staff members during screening and treatment services, which discouraged them from visiting hospitals for screening. They indicated that if they did not believe medical staff would maintain the confidentiality of their information, they might abstain from screening. One respondent noted, “If I do not get privacy in the room where the test will be done and if the health workers are not friendly, or if they do not explain things better to me, I might abstain from doing it” (respondent who had never screened, 37 years old) (23).

Reports from Nepal indicate that one of the primary reasons for women's nonattendance at screenings is the lack of privacy. Additional perceived barriers include feelings of shame and fear, especially when there is unnecessary exposure of intimate areas in front of male healthcare professionals. This lack of privacy can diminish women's participation in screenings and their trust in the healthcare system. Insufficient privacy and confidentiality in government hospitals in Nepal highlight the critical deficiencies in the delivery of healthcare services. Similarly, women in Nigeria have identified limited privacy as a primary reason for not participating in screening (10).

Findings from a study in Washington, D.C., further suggest that privacy is a significant factor influencing the decision to pursue preventive screening for cervical cancer (25). Low uptake of screening is also linked to embarrassment and fear during the process. Numerous studies have suggested a connection between declining cervical cancer screening offers and social and cultural barriers related to the taboo surrounding the

examination of genital areas. Additionally, women's perceptions of their likelihood of developing cervical cancer play a significant role in the low uptake, with feelings of shame about the screening process being frequently mentioned as a barrier due to the nature of the examinations involved (3).

2.4 Factors for Ethical Concerns

Awareness of patient rights is closely linked to the ethical considerations in cervical cancer screening, as it empowers women to make informed decisions about their health, enhances their sense of autonomy, and promotes trust in healthcare providers. When women are aware of their rights, such as the right to informed consent, privacy, and respectful treatment, they are more likely to advocate for themselves, ask questions, and feel comfortable during the screening process. Ethical issues arise when these rights are not upheld, leading to a lack of consent, compromised privacy, or coercion, which can negatively impact the screening experience and discourage future participation.

Ensuring that women are informed about their rights and addressing ethical issues such as maintaining confidentiality, respecting their choices, and providing culturally sensitive care are crucial for creating a positive and supportive screening environment. Ultimately, a higher awareness of patient rights, coupled with adherence to ethical standards, contributes to increased trust, patient satisfaction, and a higher uptake of cervical cancer screening (26).

The type of facility providing cervical cancer screening significantly impacts the uptake of these services, particularly in low- and middle-income countries. Research highlights that facilities with advanced resources and trained staff lead to higher screening rates, as seen in a study from Nigeria that compared public and private health facilities. Those with more comprehensive services, including HPV DNA testing, generally reported better outcomes. Additionally, a study conducted in South Africa indicated that urban health facilities had better access and resources than rural ones, which often faced barriers such as inadequate technology and staffing. These findings underscore the need to enhance the quality and accessibility of health facilities to improve cervical cancer screening rates among women (27-29).

2.5 Client Satisfaction with Cervical Cancer Screening Services

A study evaluating client satisfaction with cervical cancer screening services at North Wollo Public Hospitals in Ethiopia identified several factors influencing women's experiences. It revealed that 40.3% of participants were very satisfied with access to diagnostic centers, and 56.9% felt secure with hospital staff support. While 40.8% expressed strong satisfaction with diagnostic support, privacy and confidentiality were rated highly, with 39% satisfied with access to physicians. However, satisfaction varied based on educational status and occupation, with lower satisfaction among housewives and those with less education. Additionally, longer waiting times and greater distances to services negatively affected overall satisfaction (30).

In conclusion, cervical cancer remains a significant public health challenge, particularly in low- and middle-income countries, where the burden of disease is disproportionately

high. The high incidence rates, particularly in Sub-Saharan Africa, are exacerbated by limited access to screening and treatment, reflecting broader socioeconomic disparities. Ethical considerations, including informed consent, confidentiality, and privacy, are crucial in enhancing participation in cervical cancer screening programs. Patients often feel uncomfortable due to a perceived lack of empathy and effective communication from healthcare providers, which deters them from seeking necessary services.

To address these barriers, it is essential to improve healthcare provider training, ensure the confidentiality of medical information, and foster an environment of trust and respect. With targeted interventions, such as the implementation of HPV testing and the enhancement of screening services, there is potential to significantly reduce the incidence and mortality of cervical cancer, ultimately improving the quality of life for women affected by this disease.

3. Conceptual framework

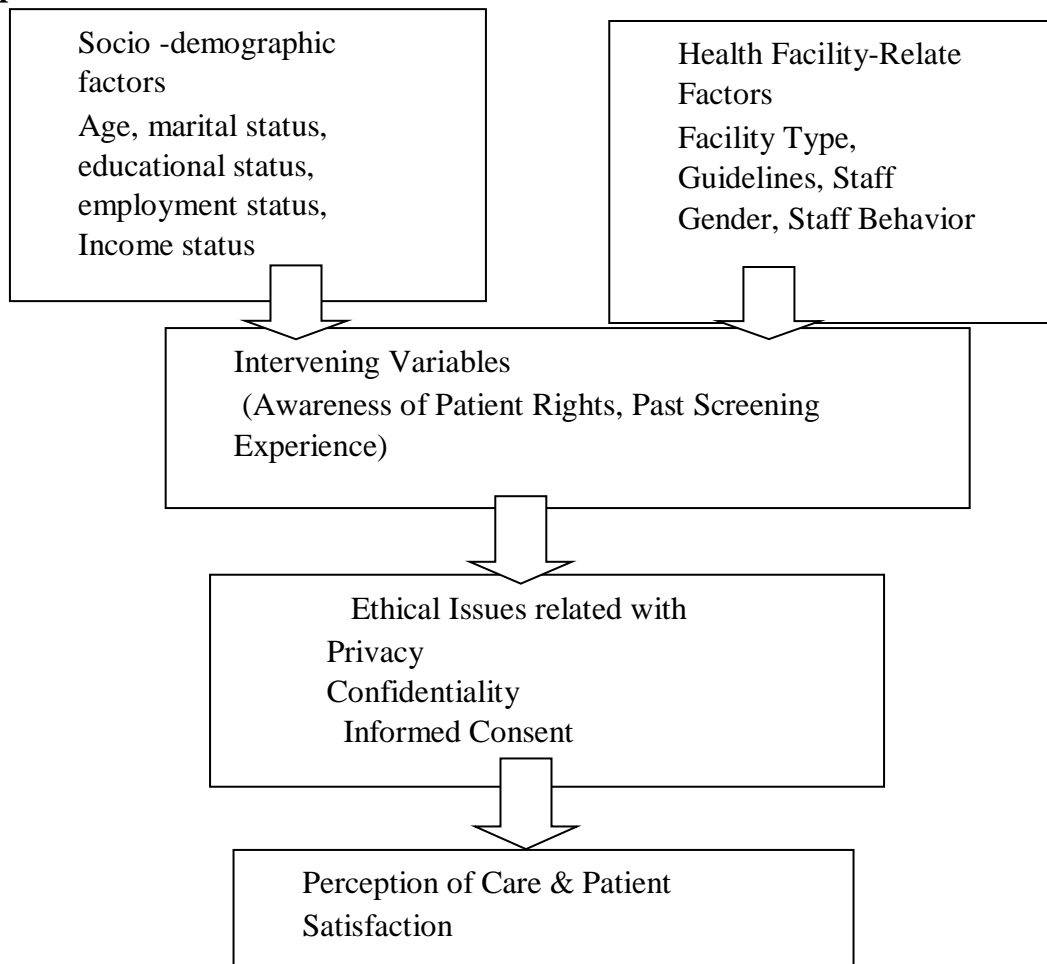


Figure 1 Conceptual framework

4. Objectives

4.1 General objective

To assess ethical issues among women attending cervical cancer screening in public health facilities, Addis Ababa, Ethiopia

4.2 Specific objective

1. To assess ethical issues related with informed consent among women in age group of 30-49 attended cervical cancer screening in public health facilities, Addis Ababa, Ethiopia
2. To assess ethical issues related with privacy among women in age group of 30-49 attended cervical cancer screening in public health facilities, Addis Ababa, Ethiopia
3. To assess ethical issues related with confidentiality among women in age group of 30-49 attended cervical cancer screening in public health facilities, Addis Ababa, Ethiopia

5. Methods

5.1 Study Area

This study was conducted in Addis Ababa, the capital city of Ethiopia. The city is estimated to be 174.4 square kilometers in size, with a metro area population of 5,461,000 in 2023. Addis Ababa consists of 11 sub-cities, which include 13 governmental hospitals and 94 public health centers. Cervical cancer screening services in Addis Ababa are primarily available through a network of approximately 107 public health facilities. This includes a range of health centers and hospitals that actively offer prevention, screening, and treatment services for cervical cancer.

This study was conducted at selected public health facilities, including Zewditu Memorial Hospital, St. Petros Hospital, Akaki Health Center, Jagamakelo Health Center, and Kotebe Health Center. These centers were chosen based on their high screening uptake from July to December 2023, as reported by the Addis Ababa Health Bureau's demographic and health survey: Zewditu Memorial Hospital (812 screenings), St. Petros Hospital (737 screenings), Akaki Health Center (479 screenings), Jagamakelo Health Center (400 screenings), and Kotebe Health Center (441 screenings).

5.2 Study Design

a facility-based cross-sectional study design was conducted.

5.3 Study Period

the data collection was conducted between May 19, 2024, and July 11, 2024.

5.4 Population

5.4.1 Source Population

all women who received cervical cancer screening services in the age range of 30 to 49 years in Addis Ababa during the study period.

5.4.2 Study Population

The study population consisted of women who visited the selected health facilities for cervical cancer screening services.

5.4.3 Study Unit

The study unit was women who received cervical cancer screening during the data collection period.

5.5 Inclusion Criteria

Women who received cervical cancer screening and were present in the study area during the data collection period were included.

5.6 Sample Size

The sample size was determined using a single population proportion formula. The sample size was calculated with a 95% confidence interval (CI) and a 5% margin of error, as no studies on this topic have been conducted in Ethiopia. The assumed magnitude was 50%. Using the formula below, the total sample size was computed based on these assumptions.

$$n = (Z_{\alpha/2})^2 P(1-P) / d^2 + 10\%$$

Where $Z_{\alpha/2}$ = reliability coefficient for the desired confidence interval of 95% = 1.96

P = the estimated proportion of the population attribute in question taken as 50%

d = the degree of precision 5% (0.05).

Estimated non response rate =10%

n = the initial sample size

Therefore, using the above formula

$$n = \frac{(1.96)^2 (0.5) (1-0.5)}{(0.05)^2}$$

$$n = 384 + \text{non-response rate}$$

$$= 384 + 10\% (384) = 384 + 38.4$$

$$= 422.4 = 422$$

3% of pretest will be conducted which is $n = 422 * 3\% = 12$

5.7 Sampling Method

a purposive sampling method was employed. The public health centers were selected based on their cervical cancer screening uptake, specifically those with the highest screening rates from July 2023 to December 2023, as indicated by data from the demographic and health survey conducted by the Addis Ababa Health Bureau. Among the 107 public health centers in Addis Ababa, six were selected for the research based on cervical cancer screening uptake: three out of 94 health centers and two out of 13 governmental hospitals in Addis Ababa, Ethiopia, I applied proportional allocation to distribute the sample size across the respective study areas and selected my participants using the purposive sampling method.

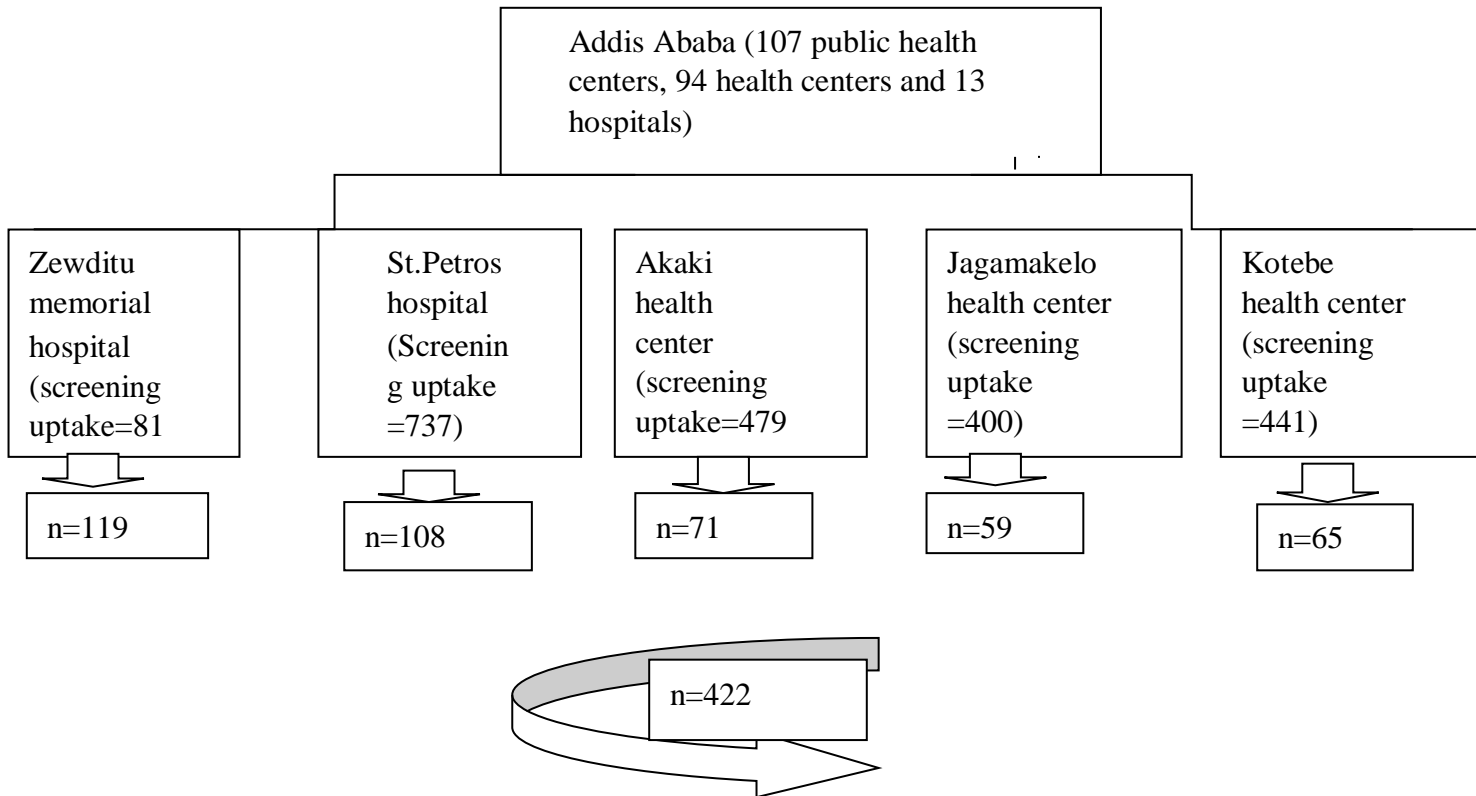


Figure 2: Schematic presentation of sampling procedure and technique of the study

NB: A pretest was conducted at Tirunesh Bejining Hospital with 3% of the sample size (422).

5.8 Study Variables

5.8.1 Dependent Variables

Ethical issues among women attending cervical cancer screening

5.8.2 Independent Variables

Socio-demographic and economic characteristics:

Age

Marital status

Educational status

Employment status

Income status

Types of facilities

5.9 Data Collection Tool and Procedure

Data were collected using a structured self-administered questionnaire adapted from other related literatures (31-34). The questionnaire included sections on socio-demographic and economic characteristics, cervical cancer screening experience, and types of facilities.

The third part consisted of 17 items designed to assess ethical issues in cervical cancer screening and two questions evaluating client satisfaction. Completing the questionnaire took between 10 to 15 minutes. The questionnaire was prepared in English and translated into Amharic.

To assess the clarity of the items and to check whether the questionnaire could collect the relevant information as desired, a pre-test was conducted on 3% of the total sample size at Tirunesh Bejining Hospital before the actual data collection date. Corrections were made based on the pre-test results. Five data collectors were recruited and trained on the questions and data collection techniques before the actual data collection. Supervision was carried out by the principal investigator during the data collection period.

5.10 Data Quality Management

To improve the quality of data, the tools were developed very carefully, particularly regarding the content, idea flow, and wording (articulation). Maximum effort was made to clarify the operationalization of variables. Pretesting of the tools was conducted in a non-sampled governmental hospital before the actual data collection date, and the reliability of the test was proven. Explanations regarding the purpose, risks, and benefits were provided during data collection to improve the response rate and obtain accurate data. Regular supervision, completeness checks, and consistency assessments were integral parts of the process. Data exploration and cleaning were also conducted.

5.11 Data Analysis

The data from the paper surveys were collected and entered into SPSS Statistics 27. Descriptive analysis was used to summarize the demographic frequencies. Descriptive statistics outlined and evaluated the ethical issues related to privacy, confidentiality, and informed consent. Chi-square analysis was used to examine the relationships among the variables.

5.12 Operational Definitions

Ethical Issues in Cervical Cancer Screening: Ethical concerns related to privacy, confidentiality, and informed consent.

Ethical Issues Related to Privacy: The client believes that their privacy is breached during cervical cancer screening, resulting in unnecessary exposure of the body.

Ethical Issues Related to Confidentiality: The client's attitude and belief that confidentiality is breached during cervical cancer screening, including the sharing of medical information and test results without the client's consent.

Ethical Issues Related to Informed Consent: Health workers were not friendly and did not create a comfortable environment. Full and clear information about cervical cancer screening was not provided, and information was not given in the client's language before consent. Clients had no opportunity to ask questions, and their questions were not adequately answered. The decision to undergo cervical cancer screening was not left up to the client.

5.13 Ethical Considerations

Ethical clearance was obtained from the School of Public Health, Addis Ababa University Research Ethics Committee, and from the Addis Ababa Health Bureau. The purpose, risks, and benefits of participating in the study were explicitly communicated by the data collectors. Randomness of selection and voluntary participation were ensured. Data collectors informed participants of their right to refuse or terminate the study at any stage without any precondition, and they could skip questions whenever they wanted. Confidentiality was ensured by not mentioning the names of organizations or individuals on the tools; the data were used only for study purposes. Under these conditions, permission was sought for participation. Written informed consent was obtained from the participants. Their participation was voluntary and selected purposively to fit the study's objectives.

5.14 Plan of Dissemination

the findings will be presented to the Addis Ababa University College of Health Sciences and the School of Public Health. A copy of the results will be provided to relevant stakeholders. Further efforts will be made to publish the results in national or international journals.

6. Results

6.1 Socio-Demographic Characteristics of Study Participants

A total of 422 participants were included in the study, with 227 (54.0%) sourced from hospitals and 195 (46.2%) from health centers. The age distribution revealed that 51 (12.1%) were aged 30–34 years, 103 (24.5%) were aged 35–39 years, 204 (48.3%) were aged 40–44 years, and 64 (15.2%) were aged 45–49 years. Marital status was predominantly married, with 360 participants (85.3%), followed by 14 (3.3%) divorced, 37 (8.8%) widowed, and 11 (2.6%) single. In terms of education, 86 (20.5%) had a college-level education or higher, 203 (48.1%) completed high school, 115 (27.3%) had an elementary education, and 18 (4.3%) were illiterate. Employment status indicated that 189 (45.0%) were government employees, 140 (33.3%) were engaged in private work, 69 (16.4%) were housewives, and 24 (5.7%) were unemployed. Regarding income, 331 (78.8%) reported having personal income, with 9 (2.1%) earning around 1,000, 51 (12.1%) earning between 2,000 and 3,000, 189 (45.0%) earning between 4,000 and 5,000 and 82 (19.5%) earning over 5,000. The remaining 89 participants (21.2%) had no personal income.

Table 1: Socio-Demographic Characteristics of Study Participants

Characteristic	Category	Number of Participants (n)	Percentage (%)
Total Participants	-	422	100%
Type of Facilities	Referral Hospitals	227	54.0%
	Health Centers	195	46.2%
Age Distribution	30–34 years	51	12.1%
	35–39 years	103	24.5%
	40–44 years	204	48.3%
	45–49 years	64	15.2%
Marital Status	Married	360	85.3%
	Divorced	14	3.3%
	Widowed	37	8.8%
	Single	11	2.6%
Educational Background	College-level or higher	86	20.5%
	High School	203	48.1%

Characteristic	Category	Number of Participants (n)	Percentage (%)
Employment Status	Elementary Education	115	27.3%
	Illiterate	18	4.3%
	Government Employees	189	45.0%
	Private Work	140	33.3%
	Housewives	69	16.4%
Income Distribution	Unemployed	24	5.7%
	Around 1,000	9	2.1%
	2,000–3,000	51	12.1%
	4,000–5,000	189	45.0%
	Over 5,000	82	19.5%

Note: The percentages may not sum to 100% within categories due to rounding.

6.2 Informed Consent Process Assessment of Cervical Cancer Screening Experiences

In assessing the informed consent process during cervical cancer screening, 411 clients (97.4%) reported that health workers were friendly and created a comfortable environment, while 11 clients (2.6%) felt uncomfortable. Among these, 6 experienced yelling, 3 felt disrespected, and 1 felt ashamed. Additionally, 416 clients (98.6%) received full and clear information about the screening, and all 422 clients confirmed that the information was provided in a language they understood. Furthermore, 414 clients (98.1%) had the opportunity to ask questions, and 415 clients (98.3%) felt that the decision to undergo screening was theirs alone.

Table 2: Informed Consent Process Assessment of Cervical Cancer Screening Experiences

Characteristic	Category	Number of Participants (n)	Percentage (%)
Total Participants	-	422	100%
Health Worker Friendliness	Friendly and Comfortable Environment	411	97.4%

Characteristic	Category	Number of Participants (n)	Percentage (%)
Reasons for Unfriendly Environment	Unfriendly Environment	11	2.6%
	Yelled or Spoke Angrily	6	1.4%
	Felt Disrespected	3	0.7%
	Felt Ashamed Due to Health Worker's Behavior	1	0.2%
Clarity of Information Provided	Received Full and Clear Information	416	98.6%
	Did Not Receive Clear Information	6	1.4%
Information Provided in Understandable Language	Information Provided in a Clear Language	422	100%
Opportunity to Ask Questions	Had Opportunity to Ask Questions	414	98.1%
	Did Not Feel Questions Were Adequately Addressed	8	1.9%
Decision Autonomy	Decision to Undergo Screening Was Voluntary	415	98.3%
	Did Not Feel Decision Was Voluntary	7	1.7%

Note: Percentages may not sum to 100% within categories due to rounding.

6.3 Privacy Assessment of Cervical Cancer Screening Experiences

Out of 422 clients, 408 (96.7%) were examined by female health professionals, while 14 (3.3%) were examined by males. Among those examined by males, 2 clients (14.3%) felt their privacy was compromised because the health professional was male, while 12

(85.7%) did not. Additionally, 21 clients (5%) reported a lack of privacy in the examination room. Furthermore, 417 clients (98.8%) did not feel their non-examined body parts were overexposed, and 11 clients (2.6%) reported someone else was present during screening. Almost all, 417 clients (98.8%), confirmed that the health professional respected their privacy by closing the curtains.

Table 3: Privacy Assessment of Cervical Cancer Screening Experiences

Characteristic	Category	Number of Participants (n)	Percentage (%)
Total Participants	-	422	100%
Health Professionals	Female	408	96.7%
	Male	14	3.3%
A Male Health Professional Conducted My Cervical Cancer Screening, Affecting My Privacy	Yes	2	14.3%
	No	12	85.7%
Privacy in Examination Room	Privacy Maintained	401	95.0%
	Perceived No Privacy	21	5.0%
Reasons for Lack of Privacy	Room Not in Private Area	12	85.7%
	Curtains Inadequate	2	14.3%
Non-Examined Body Parts Coverage	Properly Covered	417	98.8%
	Inadequately Covered	0	0%
Presence of Additional Individuals During Screening	Someone Else Present	11	2.6%
	No One Else	410	97.4%

Characteristic	Category	Number of Participants (n)	Percentage (%)
Curtains Closed Before Screening	Present		
	Curtains Closed	417	98.8%
	Curtains Not Closed	5	1.2%

Note: Percentages may not sum to 100% within categories due to rounding. Some responses were missing.

6.4 Confidentiality Assessment of Cervical Cancer Screening Experiences

In assessing the confidentiality of cervical cancer screening, 281 clients (66.6%) reported that they were assured their confidentiality would be maintained prior to the examination. Regarding unauthorized disclosure, 14 clients (3.3%) indicated that a health professional had shared their medical information in the presence of another person without their consent, and 13 clients (3.1%) stated that their history and physical examination results were shared with other staff without consent. Additionally, 1 client (0.2%) reported that their medical results and treatment plans were shared with their family without consent.

Table 4: Confidentiality Assessment of Cervical Cancer Screening Experiences

Characteristic	Category	Number of Participants (n)	Percentage (%)
Total Participants	-	422	100%
Assurance of Confidentiality	Confidentiality Assured	281	66.6%
	Confidentiality Not Assured	141	33.4%
Disclosure of Medical Information Without Consent	The health professional shared my medical information in front of others without consent.	Yes	14
		No	408
My medical history and exam results	Yes	13	3.1%

Characteristic	Category	Number of Participants (n)	Percentage (%)
were disclosed with staff without my consent.	No	409	96.9%
	Yes	0	0%
I heard my medical information from other clients at the screening service	No	421	98.8%
	Yes	0	0%
Sharing of Results and Treatment Plans with Family Without Consent	Shared with Family	1	0.2%
	Not Shared with Family	421	99.8%

Note: Percentages may not sum to 100% within categories due to rounding. Some responses were missing.

6.5 General Satisfaction

General Satisfaction with Health Counseling and Cervical Cancer Screening

When asked if they would recommend the health counseling and cervical cancer screening to friends or others, 419 clients (99.3%) responded positively. Similarly, 419 clients (99.3%) expressed satisfaction with the care and overall health counseling they received regarding cervical cancer screening. However, 3 clients (0.7%) were not satisfied with the care and counseling provided.

Table 5: General Satisfaction with Health Counseling and Cervical Cancer Screening

Characteristic	Category	Number of Participants (n)	Percentage (%)
Total Participants	-	422	100%
Recommendation of Health Counseling and Screening for Others	Would Recommend	419	99.3%
	Would Not Recommend	3	0.7%
Overall Perceived Satisfaction	Satisfied	419	99.3%
	Not Satisfied	3	0.7%

Note: Percentages may not sum to 100% within categories due to rounding.

6.6 Chi-Square Test Results

The Chi-Square test results indicate significant associations between various factors and perceptions related to confidentiality and information clarity in healthcare settings. Notably, marital status significantly influences confidentiality assurance, with a Chi-Square value of 11.364 ($p = .010$), suggesting differing perceptions based on relationship status. Additionally, the type of health facility is strongly linked to confidentiality assurance (Chi-Square = 27.112, $p < .001$) and the perception of a friendly environment (Chi-Square = 6.260, $p = .012$). Age also affects how clearly information is understood, as indicated by a significant Chi-Square value of 12.649 ($p = .005$). Other notable findings include the relationship between marital status and perceptions of a friendly environment (Chi-Square = 23.029, $p < .001$) and clarity of information (Chi-Square = 9.144, $p = .027$), as well as employment status effect on the presence of additional individuals during consultations (Chi-Square = 9.625, $p = .022$). These results highlight the importance of considering demographic and contextual factors in improving patient experiences in healthcare.

6.6 Table Chi-Square Test Results

Variable Pair	Chi-Square Value	df	Asymptotic Significance (2-sided)
Marital Status and Confidentiality Assurance	11.364	3	0.01
Health Facility and Confidentiality Assurance	27.112	1	0.0
Health Facility and Friendly Environment	6.26	1	0.012
Age and Information Clarity	12.649	3	0.005
Marital Status and Friendly Environment	23.029	3	0.0
Marital Status and Clear Information	9.144	3	0.027
Employment and Additional Individual Present	9.625	3	0.022

7. Discussion

The study included 422 participants, with 54% sourced from hospitals and 46.2% from health centers. Most clients (97.4%) reported that health workers created a friendly and comfortable environment, although a few felt uncomfortable due to yelling or disrespect. Nearly all participants (98.6%) received clear information about the screening in a language they understood, and 98.3% felt that the decision to undergo screening was theirs alone.

Female health professionals conducted 96.7% of the exams, while only 14 clients (3.3%) were examined by males. Privacy concerns were minimal, with 98.8% feeling their privacy was respected; however, 5% reported a lack of privacy in the examination room. Regarding confidentiality, 66.6% were assured that their information would be kept confidential, but 3.3% experienced unauthorized disclosure of their medical information. Overall, 99.3% were satisfied with the health counseling they received and would recommend it to others, while only 0.7% expressed dissatisfaction.

7.1 Ethical Issues Related to Informed Consent

Understandable and detailed information in a friendly environment is essential for enabling individuals to make informed health decisions (10, 12). My findings reveal that a high percentage of clients—97.4%—reported feeling in a friendly environment, while 98.3% expressed a sense of autonomy in their decision-making. These results align with existing literature that emphasizes the importance of respect and clear communication in healthcare settings (15), indicating that most clients felt well-informed and valued, thus supporting their autonomy. However, some literature notes that individuals may feel pressured or adopt a fixed mindset regarding screening, leading to perceptions that it is not entirely voluntary. In certain contexts, women may experience diminished decision-making power and feel the need to consult others, impacting their autonomy (16).

While 98.3% of clients felt their decision was their own, only 72.2% in Gondar felt involved in the decision-making process, suggesting that some clients may have felt less engaged. This highlights potential areas for improvement in perceived voluntariness and involvement in decision-making. Negative attitudes from healthcare workers, such as rudeness or lack of empathy, are recognized as significant barriers to screening; thus, fostering friendly and supportive interactions is crucial for encouraging participation and building trust (24). My findings also show high satisfaction with healthcare providers' friendliness (93.2%) and listening skills (96.1%), indicating that most clients had positive experiences. However, addressing the 1.7% who felt their decision was not entirely theirs is important, as effective shared decision-making involves not only providing information but also actively engaging patients in the decision process. Studies underscore the significance of this engagement in improving trust and participation. (32).

7.2 Ethical Issues Related to Privacy

In this study, we found that while a small percentage (5%) of clients reported privacy issues in the examination room, the majority felt that their privacy was respected. This

indicates that overall satisfaction with privacy is high, but targeted improvements are needed to address the concerns of the minority. Our findings align with a study conducted in Ghana, which highlights that concerns about privacy, attitudes of healthcare professionals, and fears of incorrect diagnoses are significant barriers to cervical cancer screening. The apprehension that patients may not receive adequate privacy can deter them from attending screenings (25).

Similarly, a study in Nepal indicates that a lack of privacy is a major reason for avoiding screenings, with feelings of shame and fear significantly contributing to this issue. Our data supports this notion, as the small percentage of clients (5%) who reported privacy concerns suggests that privacy issues can adversely impact screening participation(31). This sentiment is echoed in findings from Nigeria, where limited privacy is cited as a primary reason for not participating in screenings (32). The 5% of clients in our study who reported privacy concerns may reflect this broader concern.

In Washington, D.C., research has identified privacy as a crucial factor influencing the decision to pursue cervical cancer screening (4). The high percentage (98.8%) of clients in our study who felt their privacy was respected suggests that the screening program is meeting privacy standards. However, addressing the concerns of the 5% who reported privacy issues could further enhance screening participation. Our study found that privacy during cervical cancer screening was generally well-maintained, with 96.7% of clients examined by female health professionals and 98.8% reporting that their non-examined body parts were adequately covered. Although a few clients reported concerns about privacy (0.5%) and room privacy (5%), 82.3% of clients in the Gondar City public health facilities screening program felt their privacy was respected during the procedure(28)

7.3 Ethical Issues Related to Confidentiality

My findings reveal that 33.4% of clients did not receive explicit assurance of confidentiality, which could hinder cervical cancer screening uptake. Although only a small percentage of clients reported unauthorized disclosures (3.3%) and sharing of results without consent (3.1%), these incidents can contribute to perceptions of unprofessional behavior and undermine trust in the screening process. Addressing these concerns through improved staff training and strict adherence to confidentiality protocols could enhance patient trust. The literature emphasizes that maintaining the confidentiality of test results and fostering trust in caregivers are crucial for patient acceptance of screening procedures (15). Notably, 88.3% of clients in Gondar City felt confident that their information was kept confidential(28), indicating a generally trusting environment. The high percentage (98.8%) of clients who did not overhear their medical information, along with the minimal (0.2%) who reported unauthorized sharing with family, suggests that confidentiality measures are largely effective. Nonetheless, focusing on the 33.4% who did not receive explicit assurance of confidentiality could further strengthen client confidence in the system.

7.4 General Satisfaction

In my study, 99.3% of clients reported high satisfaction with the cervical cancer screening program, recommending the service and expressing overall contentment with the care and counseling provided. In comparison, a previous report from public health facilities in Gondar City indicated that 91.8% of clients were satisfied with the services, suggesting the program's effectiveness in meeting their needs(32).

8. Strengths and Limitations

8.1 Strengths

Methodological Strengths: A major strength of the study was the large sample size and the use of direct interviews with women immediately after service provision. This approach minimized recall bias and allowed for more accurate and immediate feedback, enhancing the reliability of the findings.

Focus on Ethical Principles: The emphasis on core ethical principles, such as respect for autonomy and the need for informed consent, reinforces the importance of ethical considerations in healthcare. This focus ensures that the recommendations are not just practical but also grounded in ethical theory, which is crucial for patient-centered care.

8.2 Limitations

Limited Exploration of Underlying Causes: The study highlights privacy and confidentiality concerns but did not deeply explore the underlying reasons why some clients felt their privacy or confidentiality was compromised. A more detailed qualitative analysis could provide insights into specific behaviors or systemic issues that contribute to these concerns.

Potential Response Bias: Client satisfaction and perceptions of privacy and confidentiality were based on self-reported data, which may be influenced by social desirability bias. Participants might underreport negative experiences or overreport satisfaction, which could affect the accuracy of the findings.

Generalization Limitations: While comparisons with studies from other countries provide valuable context, the results may not be entirely generalizable due to differences in healthcare systems, cultural norms, and socioeconomic factors. Local context should be considered when applying these findings to other settings.

Overemphasis on Quantitative Data: The findings rely solely on quantitative data, which, while valuable, may miss the nuanced experiences of clients. Incorporating qualitative data, such as patient interviews or focus groups, could provide a richer understanding of client perspectives and enhance the overall analysis.

Inadequate Focus on Healthcare Providers' Perspectives: The study primarily reflects client perspectives and did not sufficiently explore the views of healthcare providers, which could offer insights into the challenges they face in maintaining privacy and confidentiality. Including provider feedback could help in designing more effective training and support systems.

Limitation of Simple Measurements: The use of simple measurements for patient satisfaction did not fully capture diverse perspectives. This limited the ability to account for different client experiences and feedback.

9. Conclusion

This study highlights critical ethical issues related to privacy, confidentiality, and informed consent in cervical cancer screening programs. The results indicate that most clients were satisfied with the privacy and confidentiality measures during screening, with a significant majority reporting respectful treatment and a positive screening environment. However, some clients expressed concerns about privacy and inadequate confidentiality, which could impact their trust and willingness to participate in future screenings.

The data suggest that while the screening program in Addis Ababa public health facilities generally maintains high standards of privacy, confidentiality, and informed consent, there are areas for targeted improvement. Addressing the privacy concerns reported by clients and enhancing explicit assurances of confidentiality could further promote client confidence and participation rates. Additionally, the study underscores the importance of engaging clients more actively in decision-making processes to enhance their sense of autonomy and involvement in their care.

The findings emphasize the need for continuous efforts to improve communication, uphold ethical standards, and provide a supportive and respectful environment for all clients. Enhancing staff training on privacy and confidentiality protocols and fostering a culture of patient-centered care will be essential in addressing the specific concerns identified. By tackling these issues, the screening program can further enhance its effectiveness, increase client satisfaction, and ultimately improve cervical cancer screening uptake and outcomes.

10. Recommendations

Recommendations to Improve Ethical Standards in Cervical Cancer Screening:

Enhance Privacy Measures: The government, through the Ministry of Health and the Healthcare Regulatory Authority, should implement stricter privacy protocols in screening rooms, ensuring proper curtains and restricted access based on client feedback.

Strengthen Confidentiality Protocols: Healthcare institutions and professional medical associations need to provide additional training for healthcare providers on confidentiality, alongside regular audits to reinforce ethical standards.

Increase Patient Involvement: Healthcare providers should engage clients in shared decision-making through interactive counseling and actively seek their feedback to enhance care.

Ongoing Training for Providers: Healthcare organizations must conduct regular training on patient-centered care and effective communication, emphasizing empathy and active listening among providers.

Create a Welcoming Environment: Hospital management should foster a supportive atmosphere that alleviates fear and embarrassment, ensuring patients feel safe and respected during screenings.

Feedback System: Healthcare quality improvement teams and patient satisfaction committees should implement anonymous feedback mechanisms to gather insights for continuous improvement in patient care.

Public Awareness Campaigns: The Ministry of Health, along with non-governmental organizations (NGOs) and community health initiatives, should launch campaigns to educate the community on cervical cancer screening and its ethical considerations.

Recommendations to Improve Future Research:

In-Depth Qualitative Research: Use interviews or focus groups to explore privacy and confidentiality concerns more deeply.

Mixed Methods: Combine anonymous surveys with interviews to reduce response bias and capture more accurate client feedback.

Include Healthcare Providers: Gather provider perspectives to better understand challenges and improve privacy protocols.

Longitudinal Studies: Track clients over time to assess the long-term impact of ethical measures on screening participation.

11. References

1. Bray F, Laversanne M, Sung H, Ferlay J, Siegel RL, Soerjomataram I, et al. Global cancer statistics 2022: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA: a cancer journal for clinicians*. 2024;74(3):229-63.
2. MOH. Guideline for Cervical Cancer Prevention and Control in Ethiopia. 2015.
3. Gizaw M, Teka B, Ruddies F, Kassahun K, Worku D, Worku A, et al. Reasons for Not Attending Cervical Cancer Screening and Associated Factors in Rural Ethiopia. *Cancer prevention research (Philadelphia, Pa)*. 2020;13(7):593-600.
4. Huy NVQ, Tam LM, Tram NVQ, Thuan DC, Vinh TQ, Thanh CN, et al. The value of visual inspection with acetic acid and Pap smear in cervical cancer screening program in low resource settings - A population-based study. *Gynecologic oncology reports*. 2018;24:18-20.
5. VIA, HPV detection test and cryotherapy. WHO.
6. WHO. Global Strategy to Accelerate the Elimination of Cervical Cancer as a Public Health Problem. 2021.
7. CADTH Optimal Use Reports. HPV Testing for Primary Cervical Cancer Screening: Recommendations Report. Ottawa (ON): Canadian Agency for Drugs and Technologies in Health
Copyright © 2019 Canadian Agency for Drugs and Technologies in Health.; 2019.
8. Lott BE, Halkiyo A, Kassa DW, Kebede T, Dedefo A, Ehiri J, et al. Health workers' perspectives on barriers and facilitators to implementing a new national cervical cancer screening program in Ethiopia. *BMC women's health*. 2021;21(1):185.
9. 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.
10. Gyawali B KJ, van Teijlingen E, Dhakal L, Aro AR. Cervical cancer screening in Nepal: ethical considerations. *Medicolegal and Bioethics*. 2015;5:1-6
11. Prisha P, Tan KS, Lee CP. Malaysian Women's Viewpoint on HPV Screening and Vaccination: A Study on Barriers. *Vaccines*. 2023;11(1).
12. Singh D, Vignat J, Lorenzoni V, Eslahi M, Ginsburg O, Lauby-Secretan B, et al. Global estimates of incidence and mortality of cervical cancer in 2020: a baseline analysis of the WHO Global Cervical Cancer Elimination Initiative. *The Lancet Global health*. 2023;11(2):e197-e206.
13. Amado G, Weldegebreal F, Birhanu S, Dessie Y. Cervical cancer screening practices and its associated factors among females of reproductive age in Durame town, Southern Ethiopia. *PloS one*. 2022;17(12):e0279870.
14. Tadesse F, Megerso A, Mohammed E, Nigatu D, Bayana E. Cervical Cancer Screening Practice Among Women: A Community Based Cross-Sectional Study Design. *Inquiry : a journal of medical care organization, provision and financing*. 2023;60:469580231159743.
15. Gelassa FR, Nagari SL, Jebena DE, Belgafu D, Teso D, Teshome D. Knowledge and practice of cervical cancer screening and its associated factors among women attending

- maternal health services at public health institutions in Assosa Zone, Benishangul-Gumuz, Northwest Ethiopia, 2022: a cross-sectional study. *BMJ open*. 2023;13(5):e068860.
16. Membrilla-Beltran L, Cardona D, Camara-Roca L, Aparicio-Mota A, Roman P, Rueda-Ruzafa L. Impact of Cervical Cancer on Quality of Life and Sexuality in Female Survivors. *International journal of environmental research and public health*. 2023;20(4).
 17. Saei Ghare Naz M, Kariman N, Ebadi A, Ozgoli G, Ghasemi V, Rashidi Fakari F. Educational Interventions for Cervical Cancer Screening Behavior of Women: A Systematic Review. *Asian Pacific journal of cancer prevention : APJCP*. 2018;19(4):875-84.
 18. Brodersen J, Siersma V, Thorsen H. Consequences of screening in cervical cancer: development and dimensionality of a questionnaire. *BMC psychology*. 2018;6(1):39.
 19. Swanson M, Ibrahim S, Blat C, Oketch S, Olwanda E, Maloba M, et al. Evaluating a community-based cervical cancer screening strategy in Western Kenya: a descriptive study. *BMC women's health*. 2018;18(1):116.
 20. Factsheet G. Ethiopia Program Highlights. go further ending AIDS and cervical cancer 2022.
 21. Omondi Aduda DS, Mkhize N. Ethical issues evolving from patients' perspectives on compulsory screening for syphilis and voluntary screening for cervical cancer in Kenya. *BMC medical ethics*. 2014;15:27.
 22. Lim JN, Ojo AA. Barriers to utilisation of cervical cancer screening in Sub Sahara Africa: a systematic review. *European journal of cancer care*. 2017;26(1).
 23. Binka C, Nyarko SH, Awusabo-Asare K, Doku DT. Barriers to the Uptake of Cervical Cancer Screening and Treatment among Rural Women in Ghana. *BioMed research international*. 2019;2019:6320938.
 24. Burrowes S, Holcombe SJ, Leshargie CT, Hernandez A, Ho A, Galivan M, et al. Perceptions of cervical cancer care among Ethiopian women and their providers: a qualitative study. *Reproductive health*. 2022;19(1):2.
 25. Ndukwe EG, Williams KP, Sheppard V. Knowledge and perspectives of breast and cervical cancer screening among female African immigrants in the Washington D.C. metropolitan area. *Journal of cancer education : the official journal of the American Association for Cancer Education*. 2013;28(4):748-54.
 26. (IARC) IAfRoC. Audit of Cancers, Legal and Ethical Frameworks, Communication, and Workforce Competencies. 2023:Chapter 2 Legal and ethical frameworks to safeguard the interests of cervical screening participants, health professionals, and programme managers associated with cervical screening and related services
 27. Akokuwebe ME, Idemudia ES, Lekulo AM, Motlogeloa OW. Determinants and levels of cervical Cancer screening uptake among women of reproductive age in South Africa: evidence from South Africa Demographic and health survey data, 2016. *BMC public health*. 2021;21(1):2013.
 28. Devarapalli P, Labani S, Nagarjuna N, Panchal P, Asthana S. Barriers affecting uptake of cervical cancer screening in low and middle income countries: A systematic review. 2018;55(4):318-26.

29. Lawson O, Ameyan L, Tukur Z, Dunu S, Kerry M, Okuyemi OO, et al. Cervical cancer screening outcomes in public health facilities in three states in Nigeria. *BMC public health*. 2023;23(1):1688.
30. Ejigu B, Dilnesa T, Ebrahim T, Mulugeta C, Susu B, Emagneh T. CLIENT SATISFACTION ON CERVICAL CANCER SCENING AND ITS ASSOCIATED FACTORS AMONG SCREENED WOMEN IN NORTH WOLLO PUBLIC HOSPITALS, ETHIOPIA. 2024:2024.06.16.24308997.
31. Woldetsadik AB, Amhare AF, Bitew ST, Pei L, Lei J, Han J. Socio-demographic characteristics and associated factors influencing cervical cancer screening among women attending in St. Paul's Teaching and Referral Hospital, Ethiopia. *BMC women's health*. 2020;20(1):70.
32. Tsegaye K, Hagos A, Kindie H, Minyihun A, Teshale G. Evaluation of cervical cancer screening program in Gondar city administration public health facilities, Northwest Ethiopia, 2021: mixed method approach. *BMC cancer*. 2023;23(1):1034.
33. Selmouni F, Zidouh A, Alvarez-Plaza C, El Rhazi K. Perception and satisfaction of cervical cancer screening by Visual Inspection with Acetic acid (VIA) at Meknes-Tafilalet Region, Morocco: a population-based cross-sectional study. *BMC women's health*. 2015;15:106.
34. Selmouni F, Sauvaget C, Zidouh A, Plaza CA, Muwonge R, Rhazi KE, et al. Evaluation of Provider Skills in Performing Visual Inspection with Acetic Acid in the Cervical Cancer Screening Program in the Meknes-Tafilalet Region of Morocco. *Asian Pacific journal of cancer prevention : APJCP*. 2016;17(9):4313-8.

Annexes

Annex 1

Questioner in English

Questioner

Part 1: Socio demographic characteristics

1. How old are you?

A. 30 - 34 B. 35 – 39 C. 40 – 44 D. 45-49

2. What is your marital status?

A/Single B/Married C/Widowed D/Divorced

3. What is your Educational Status?

A/Illiterate B/ Elementary C /High school D/ College and above

4. What is your Employment Status?

A. House wife B. Not employed C. Government employee D. private employee

5. If you are employed, what is your personal income status?

A/1000 B/2000 - 3000 D/4000 – 5000 E/>5000

6. Where do you have the cervical cancer screening in which health facility currently?

A. hospital B. health center

Part 2 Assessing privacy of cervical cancer screening based on current experiences

Who conducted the cervical screening test and counseling A. Male health professional B Female health professional

If your answer is A answer the next question

My privacy has been violated since a male health professional provided me with the counseling and Cervical cancer screening test

A .Yes B. no

There was no privacy in the cervical cancer examination room

A .Yes B. no

If the answer is no, it's because

The room was not in private area

The curtains did not cover me adequately during the cervical cancer screening

The door was open

During my cervical cancer screening, there was an additional individual present besides the examiner

A .Yes B. no

My non-examined body part was either overexposed to the health Professional during the cervical cancer screening test, or it was not adequately covered by cloth when it came to my other body parts

A .Yes B. no

The health professional had gave me the respect for my privacy by closing the curtains before cervical cancer screening

A .Yes B. no

Part 3 Assessing confidentiality of cervical cancer screening based on current experiences

I have been assured that the confidentiality will be maintained prior to the cervical cancer screening examination A .Yes B. no

2. The health profession had told me about my medical information while other person was there in room without my consent

A .Yes B. no

My history and physical examination and results had been told with other staff without my consent

A .Yes B. no

I heard my medical information from other clients of the cervical cancer screening service

A .Yes B. no

My medical result and my treatment plan had been told to my family Without my consent

A .Yes B. no

Part 4 Assessing the informed consent process of cervical cancer screening based On current experiences

The health workers were friendly and created comfortable environment

A .Yes B. no

If the answer is B, answer the next question

The health worker was yelling at me or talk angrily

The health worker had disrespected me

The health worker made me feel ashamed

3. Full and clear information about the cervical cancer screening was provided

A .Yes B. no

4. The information about the cervical cancer screening was given by my language and understanding before my consent

A .Yes B. no

5. I have had a chance to ask questions and all my questions have been adequately Answered

A .Yes B. no

The decision was up to me to have Cervical Cancer Screening

A .Yes B. no

Part 5 General satisfaction

1. Do you feel satisfied with the care and overall health counseling regarding cervical cancer screening?

A. Yes B. No

2. Would you suggest that friends or other people get the same health counseling and cervical cancer screening?

A. Yes B. No

Annexes 2

Questionnaire identification number-----

Name of health facility-----

Address: kebele----- sub-city-----

Hello. My name is----- I am one of the data collectors of the study Conducted by yeelshaday Solomon , a master of public health student at Addis Ababa university School of public health, conducting this research for partial fulfillment of my master's degree in Public health.

Eligibility: You have to had the cervical cancer screening experience. Minimal once.

Purpose: The study aims to assess ethical issues in cervical cancer screening among women attending cervical cancer screening in governmental hospitals and public health centers in Addis Ababa, Ethiopia

Participation: I highly appreciate you taking the time to complete this survey. Your participation in this study is completely voluntary. You may stop or withdraw from the study at any time, or refuse to answer any particular question for any reason without it being held against you. Your Decision on whether or not to participate will have no effect on your current or future at your Organization. During the study, you will take a self-administered questionnaire which contains three parts. The first part consists of 8 questions, where you will be asked about your Background information, as well as your academic and professional history; whereas the second part consists of 3 question regarding cervical cancer screening utilization and lastly the third part consists 28 items that meant to be ticked as agree or strongly agree or neutral or disagree or strongly disagree which assess ethical issues in cervical cancer screening and. The questioner Will take between 20-25 minutes to complete. As part of the study, I would first inquire about. The benefit of participation: Even if there is no direct incentive for your participation, you will contribute to a better understanding of the gap in research and helps to understand the ethical issues in cervical cancer screening . Furthermore, this study can be used as a starting point for studies on similar topics that will be undertaken on a different scale and depth Risk of participation: There will be no direct risk or harm by taking part in the study. Confidentiality: Every piece of information you provide will be kept confidential and will only be shared with the study team. Your name will not be written in this form and will never be used in connection with any information you tell us. Any information that can identify you will be coded to keep anonymity. All questionnaire paper will be stored in locked a samsonite. All survey data transferred to the computer will be stored on password-protected laptop. Your contribution is crucial. Given the information above, are you willing to take part in the survey? Are you willing to fill out the questionnaire right now?

Yes - continue to respond

No- Thank you for your time (Mention the reason for refusal)

By signing below, you are indicating that you have read and understood this consent form and

Agree to participate in this research study.

Signature of Person: _____

Date: _____

PI Contact: Yeelshday Solomon , epidemiology and biostatics, school of public health

Addis Ababa University

Email;solelshu@gmail.com

Phone number: +251987864344

AAU CHSIRB e mail - chs.irb@aau.edu.et

Addis Ababa University College of health sciences school of public health

Annexes 3

Informed consent in Amharic

መለያቁጥር-----

አድራሻ: ቀበሌ -----

ክፍለከተማ ----

ሰላም። የኔ ስም-----በየልሻዳይ ሰላምን የተደረገው ጥናት መረጃ ሰብሳቢዎች አንዱ ነኝ። በአዲስ አበባ ዩኒቨርሲቲ የፕብሊክ ጤና ትምህርት ቤት የፕብሊክ ጤና ተማሪ የማስተርስ ዲግሪ ለማሟላት ይህ ጥናት እየተካሄደ ነው።

ብቁነት: የማህፀን በር ቅድመ ካንሰርን የመመርመር ልምድ ሊኖር ይገባል። ቢያንስ አንድ ጊዜ። ዓላማው: ጥናቱ ዓላማው የማኅፀን በር ካንሰር ምርመራ ላይ የሥነ ምግባር ጉዳዮችን በአዲስአበባ፣ ኢትዮጵያ ውስጥ በሚገኙ የመንግስት ሆስፒታሎች እና የህዝብ ጤና ጣቢያዎች የማህፀን በር ካንሰር ምርመራ ከሚከታተሉ ሴቶች መካከል ለመገምገም ነው።

ተሳትፎ: ይህን የዳሰሳ ጥናት ለማጠናቀቅ ጊዜ ስለወሰዱት በጣም አደንቃለሁ። በዚህ ጥናት ውስጥ ያለዎት ተሳትፎ ሙሉ በሙሉ በፈቃደኝነት ነው።

በማንኛውም ጊዜ ጥናቱን ማቆም ወይም ማቆም ወይም ማንኛውንም የተለየ ጥያቄ በማንኛውም ምክንያት ለመመለስ እምቢ ማለት ይችላሉ ። ለመሳተፍ ወይም ለመሳተፍ ያደረጉት ሰነድ በአገልግሎት ላይ ምንም ተጽእኖ አይኖረውም በጥናቱ ወቅት ሶስት ክፍሎችን የያዘ በራስ የሚተዳደር መጠይቅ ትወስዳለህ። የመጀመሪያው ክፍል 5 ጥያቄዎችን ያካትታል ስለ ዳራ መረጃዎ እንዲሁም ስለ አካላዊ እና ሙያዊ ታሪክዎ ይጠየቃል; ሁለተኛው ክፍል 1 ጥያቄ የማኅፀን በርካንሰር ምርመራ በታ በተመለከተ ያቀፈ ነው። እና በመጨረሻው ሦስተኛው ክፍል 20 ነገሮችን ያቀፈ ሲሆን የማኅፀን በር ካንሰር ምርመራ ላይ የሥነ ምግባር ጉዳዮችን የሚገመግመው ይህም ምርቻ ነው። ክብር በማድረግ ይመልሱ ። ጠያቂው ለማጠናቀቅ 20 ደቂቃዎች ይወስዳል። የጥናቱ አካል እንደመሆኔ መጠን በመጀመሪያ ስለጉዳዩ እጠይቃለሁ። የተሳትፎ ጥቅም:-ለተሳትፎዎ ምንም አይነት ቀጥተኛ ማበረታቻ ባይኖርም, በምርመራ ላይ ያለውን ክፍተት በተሻለ መረዳት አስተዋፅዖ ያደርጋል እና የማኅፀን በር ካንሰር ምርመራ ላይ የሥነምግባር ጉዳዮችን ለመረዳት ይረዳል። በተጨማሪም ይህ ጥናት ለጥናት መነሻ ሆኖ በተለያዩ መጠን እና ጥልቀት በሚከናወኑ ተመሳሳይ ርዕሰ ጉዳዮች ላይ ሊያገለግል ይችላል። የመሳተፍ አደጋ: በመሳተፍ ቀጥተኛ አደጋ ወይም ጉዳት አይኖርም

ምስጢራዊነት: እያንዳንዱ የሚያቀርቡት መረጃ በሚስጥር ይጠበቃል እና ለአጥኝው ቡድን ብቻ ይጋራል ስም በዚህ ቅጽ አይጻፍም እና ከምትነግረን ከማንኛውም መረጃ ጋር በተያያዘ ፈጽሞ ጥቅም ላይ አትውልም። እርስዎን የሚላይ ማንኛውም መረጃ ሁሉም መጠይቅ ወረቀቶች በተቆለፈ ሳምሰናይት ውስጥ ይከማቻሉ። ወደ ኮምፒዩተር የተላለፉ ሁሉም የዳሰሳ ጥናቶች በይላፍ ቃል በተጠበቀው ላፕቶፕ ላይ ይቆያሉ።

የእርስዎ አስተዋፅኦ ወሳኝ ነው። ከላይ ያለውን መረጃ ከተመለከት በዳሰሳ ጥናቱ ላይ ለመሳተፍ ፈቃደኛ እና መጠይቁን አሁን ለመሙላት ፍቃደኛኛት?

አዎ - መልስ መስጠትዎን ይቀጥሉ

አይ - ስለ ጊዜዎ እናመሰግናለን (የእንቢታ ምክንያትን ይጥቀሱ)
ከዚህ በታች በመፈረም ይህን የስምምነት ቅጽ እንዳነበቡ እና እንደተረዱት እና በዚህ የጥናት ጥናት ላይ ለመሳተፍ መስማማትዎን ያሳያሉ።

ፊርማ: _____

ቀን: _____

ፕ አይ አድራሻ: ይልሻዳይ ሰለሞን አዲስ አበባ ዩኒቨርሲቲ የፕብሊክ ጤና ትምህርት ቤት የፕብሊክ ጤና የማስተርስ ዲግሪ ተማሪ

ኢሜይል: solelshu@gmail.com

ስልክ ቁጥር: 251987864344AAU CHSIRB e mail - chs.irb@aau.edu.et አዲስ አበባ ዩኒቨርሲቲ ጤና ሳይንስ ኮሌጅ የህዝብ ጤና ትምህርት ቤት

Annexes 4

Questioner in Amharic

ክፍል አንድ፡ ሰጪዎ ስነ-ሕዝብ አወቃቀር ባህሪያት

1. እድሜሽ ስንት ነው

U/ 30 - 34 ለ/35 – 39 ሐ/ 40 – 44 ሙ / 45-49

2. የጋብቻ ሁኔታሽ?

U: ያላገባ ለ: ያገባ ሐ :የፈታ ሙ: ባል የሞተባት

3. የትምህርት ደረጃ

U: ያልተማረ ለ: የመጀመሪያ ደረጃ ሐ: ሁለተኛ ደረጃ ትምህርት ሙ: ኮሌጅ እና ከዚያ በላይ

4. የስራ ሁኔታ

U: የቤት እመቤት ለ: ስራ አጥ ሐ: የመንግስት ሰራተኛ ሙ: የግል ሰራተኛ ሰ; ተማሪ

5. ተቀጥረሽ ከሆን የገቢ ሁኔታሽ ምን ያህል ነው?

U: 1000 ለ: 2000 – 3000 ሐ: 4000 – 5000 ሙ: >5000

ክፍል ሁለት: የማህፀን በር ካንሰር ቅድመ-ምርመራ ቦታ

1. በአሁኑ ሰአት የማህፀን በር ካንሰር ምርመራ በየትኛው የጤና ተቋም ውስጥ አገኙት?

U. ሆስፒታል ለ. ጤና ጣቢያ

ክፍል 2 የማህፀን በር ካንሰር ቅድመ ምርመራ ግላዊነትን መገምገም

1. የማኅጸን በር ካንሰር ቅድመ ምርመራ እና የምክር አገልግሎት በማን ተሰጠዎት?

U. በወንድ የጤና ባለሙያ ለ. በሴት የጤና ባለሙያ

2. መልስሽ ሀ ከሆነ የሚቀጥለውን ጥያቄ መልሻ

3. በወንድ የጤና ባለሙያ የምክር እና የማኅጸን በር ቅድመ ካንሰር ማጣሪያ ምርመራ ስለሰጠኝ ግላዊነትዬ ተጥሷል።

U አዎ ለ. አይ

4. የማኅጸን በር ካንሰር ምርመራ ክፍል ውስጥ ምንም ግላዊነት አልነበረም

U አዎ ለ. አይ

መልሱ አይ ከሆነ, ምክንያቱ

5. ሀ ክፍሉ ግላዊነት የጠበቀ አካባቢ አልነበረም

ለ. በማህፀን በር ካንሰር ምርመራ ወቅት መጋረጃዎቹ በበቂ ሁኔታ አልሸፈኑኝም።

ሐ. በሩ ክፍት ነበር።

6. የማኅጸን በር ካንሰርን በሚመረምርበት ጊዜ፣ ከመርማሪው በተጨማሪ አንድ ተጨማሪ ሰው ተገኝቷል።

U አዎ ለ. አይ

7. ያልተመረመረ የሰውነት ክፍል በማህፀን በር ካንሰር የማጣሪያ ምርመራ ወቅት ለጤና ባለሙያው ከልክ በላይ ተጋልጧል ወይም ሌሎች የሰውነት ክፍሎች በደንብ በጨርቅ አልተሸፈነም

U አዎ ለ. አይ

8. የጤና ባለሙያው የማህፀን በር ካንሰር ምርመራ ከመደረጉ በፊት መጋረጃዎችን በመዝጋት ለግላዊነትዬ ክብር ሰጥቶኝ ነበር

U አዎ ለ. አይ

ክፍል 3 ሚስጥራዊነትን መገምገም

1. የማህፀን በር ቅድመ ካንሰር ምርመራ ከመደረጉ በፊት ምስጢራዊነቱ እንደሚከበር ተነግሮኛል።

U አዎ ለ. አይ

2. ሌላ ሰው ካለፍቃዬ ውጪ ክፍል ውስጥ እያለ የጤና ባለሙያው ስለ እኔ የህክምና መረጃ ነግሮኝ ነበር። {ሰራተኛ፣ የቤተሰብ አባል፣ ደንበኛ

U አዎ ለ. አይ

3. የእኔ ታሪክ እና የአካል ምርመራ እና ውጤቱ ከእኔ ፈቃድ ውጭ ከሌሎች ሰራተኞች ጋር ተነግሮ ነበር።

U አዎ ለ. አይ

4. የሕክምና መረጃዬን ከሌሎች የማህፀን በር ካንሰር የማጣራት አገልግሎት ደንበኞች ሰማሁ

U አዎ ለ. አይ

5. የሕክምና ውጤቱ እና የሕክምና እቅድ ያለፈቃዬ ለቤተሰቤ ተነግሮ ነበር።

U አዎ ለ. አይ

ክፍል 4 በመረጃ የተደገፈ የስምምነት ሂደትን መገምገም

1. በምርመራ ሂደቱ የጤና ሰራተኞቹ ተግባቢ ነበሩ እና ምቹ ሁኔታን ፈጠሩ

U አዎ ለ. አይ

2. መልሱ ለ ከሆነ, የሚቀጥለውን ጥያቄ ይመልሱ

U የጤና ሰራተኛው እየጮኸኝ ነው ወይም በቁጣ ያወራኝ/ ያወራችኝ ነበር።

ለ የጤና ባለሙያው እኔን አክብሮኝ/አክብራኝ አልነበርም

ሐ. የጤና ባለሙያው /ባለሙያዎ ማፈር እንዲሰማኝ አድርጎኛል/አድርጋኛለች

3. ስለ የማህፀን በር ካንሰር ቅድመ ምርመራ ሙሉ እና ግልጽ መረጃ ቀርልቦኛል

U አዎ ለ. አይ

4. ስለ የማህፀን በር ቅድመ ካንሰር ምርመራ መረጃው ፍቃደኛነቴን ከመግለጹ በፊት በቋንቋዬ ተሰጥቶኛል

U አዎ ለ. አይ

5. ጥያቄዎችን የመጠየቅ እድል አግኝቻለሁ እናም ሁሉም ጥያቄዎቼ በቂ ምላሽ አግኝተዋል።

U አዎ ለ. አይ

6. የማህፀን በር ካንሰር ምርመራ ለማድረግ ውሳኔው በእኔ ላይ ነበር

U አዎ ለ. አይ

ክፍል 5 አጠቃላይ እርካታ

1. ማኅፀን በር ካንሰር ምርመራን በተመለከተ በሚሰጠው እንክብካቤ እና አጠቃላይ የጤና ምክር እርካታ ተሰምቶታል?

U አዎ ለ. አይ

2. ለጓደኞች ወይም ለሌሎች ሰዎች ተመሳሳይ የጤና ምክር እና የማህፀን በር ካንሰር ምርመራ እንዲደረግላቸው ሀሳብ ያቀርባሉ

U አዎ ለ. አይ

