

# **Assessment of Factors Affecting Cervical Cancer Screening Among Women of Reproductive Age (18-49 Years) in Wakiso Health Centre IV, Wakiso District**

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## **ABSTRACT**

The study conducted in April 2017 at Wakiso Health Centre IV Reproductive Health Clinic aimed to assess the factors influencing cervical cancer screening among women of reproductive age (18-49) in Wakiso District. The research employed a descriptive cross-sectional design, focusing on a sample of 60 women attending the reproductive health clinic through random sampling. Data collection involved both qualitative and quantitative methods, including questionnaires and semi-structured interviews. The study uncovered several key findings. Firstly, a substantial majority of the women surveyed (88%) had never undergone cervical cancer screening. Additionally, a significant portion (80%) lacked knowledge of any indicators suggestive of cervical cancer development, with 20% believing they could only find out through hospital testing. A significant proportion (34%) of respondents had never been screened due to perceiving themselves as too young, while 18% cited fear of the screening procedure, and 45% feared receiving a cervical cancer diagnosis. The identified factors contributing to the low cervical cancer screening rates included a lack of knowledge about cervical cancer, ignorance about the importance of regular screening, and misconceptions and negative attitudes associated with the screening process, such as the fear of pain, shame, and the fear of diagnosis. The study concluded that the lack of knowledge and negative attitudes towards cervical cancer screening were significant barriers. It recommended comprehensive health education to raise awareness and sensitize women about the importance of cervical cancer screening. Furthermore, the study called for government intervention to ensure affordable, accessible, and equitably distributed healthcare services for all, along with strategies to combat poverty and improve the socio-economic status of individuals. In sum, this study revealed that low cervical cancer screening rates among women of reproductive age in Wakiso District were primarily due to a lack of awareness and negative perceptions surrounding the screening process. The research emphasized the need for education, improved access to healthcare services, and poverty alleviation measures to address these barriers and promote cervical cancer screening.

**Keywords:** Cervical cancer screening, Human Papillomavirus, Misconceptions, Health education, Malignant tumor.

## **INTRODUCTION**

Cervical cancer is a malignant tumor of the female reproductive system that primarily affects the cervix, a lower part of the uterus [1]. Cancer otherwise called malignant tumor remains one of the dreaded causes of untimely death across the globe. Cancer is fatal because of its ability to spread from one part of the body (primary region) to other parts. This is called metastasis. Cervical Cancer (CaCx) remains the most malignant cancer in women, with the most affected being females aged between 18-65 years of age [2, 3]. The incidence of cervical cancer varies drastically among regions of the world and among different socio-demographic groups of women within a given region [4]. In those under 18 years of age, CaCx is rare because the growth and development of the reproductive system are not fully completed [5]. Thus, women aged 18-65 years are eligible for cervical screening. CaCx is the second most common cancer in women, with about 529,000 new cases diagnosed worldwide in 2008. 85% of cases occur in resource-poor countries that have no effective screening programs and limited health services [6, 7]. Cervical cancer is the most common cancer in women in Sub-Saharan Africa, accounting for 22.2% of all cancers in women and being the leading cause of death among women [8]. About 60-75% of women in sub-Saharan Africa who develop cervical cancer live in rural areas, where mortality is very high [9]. Many of these women do not receive early treatment, mostly due to lack of access (financial and geographical) to healthcare [10]. Uganda has one of the highest rates of cervical cancer in the world [11]. According to the National Center for Biotechnology Information (NCBI), cervical cancer is most prominent in East Africa [12]. In Uganda, 40% of all cancers are attributed to cervical cancer, making it the leading cause of death among Ugandan

women[13]. The country has received increasing attention from its government and international donors; however, persistently high rates of cervical cancer and deaths suggest that many gaps remain in the effective management of this disease[14, 15].

Cervical cancer is asymptomatic in the early stages[16]. As the disease progresses, women may experience watery vaginal discharge and occasional blood spotting, especially after sexual intercourse. There may also be post-menopausal bleeding. In advanced stages of the disease, a dark, foul-smelling vaginal discharge may develop from sloughing of epithelial tissue. Pain is usually a late symptom and can be either abdominal or pelvic [17].

Several factors increase one's risk of developing cervical cancer, including having multiple sexual partners or a partner who has had multiple sexual partners, having a sexual partner with a history of penile or prostate cancer, early age of first sexual intercourse, smoking tobacco, low socioeconomic status, untreated chronic cervicitis, sexually transmitted diseases (STDs), HIV infection, and contraceptive pills [18-21].

From a public health and epidemiological perspective, cervical cancer has two features that make it unique. The first is that cervical cancer is caused by specific types of sexually transmitted DNA tumor viruses, specifically Human Papillomavirus (HPV) of the papillomavirus family[22]. A woman's chances of developing cervical cancer are determined in part by her risk of having been exposed to [22]. A second feature that makes cervical cancer unique, in contrast to other cancers, is that it can be prevented through screenings, a method of preventing cancer by detecting and treating abnormalities early, which, if left untreated, could lead to Squamous Intraepithelial Lesions (SIL) that are detectable 10 years before cancer develops [23]. As a result, women who have access to screening programs have much lower rates of developing cervical cancer than those who don't have access, utilization, and availability of cancer screening services/programs[23].

## Methodology

### Study Design

This was a descriptive cross-sectional study assessing factors affecting cervical cancer screening among women of reproductive age (18-49) at Wakiso Health Centre IV's reproductive health clinic. The absence of follow-up for respondents post-study and time constraints influenced the study design. Both qualitative and quantitative data collection methods were employed[24]. Qualitative methods were used to explore respondents' views on the factors influencing cervical cancer screening, while quantitative methods were primarily used to describe numerical findings.

### Area of Study

The study was conducted at Wakiso Health Centre IV, located in Wakiso Town Council, Wakiso District, with a total population of 2,007,700 (as of the 2014 census). Wakiso Health Centre IV is situated approximately 20 kilometers northwest of Kampala City, the capital city of Uganda. It provides services such as In-Patient Department (IPD) services, Out-Patient Department (OPD) services, Reproductive Health services, Eye Care services, Maternity services, Occupational Therapy, Laboratory Services, Immunization services, and a Hypertension/DM clinic. The facility is equipped with an operational theater staffed by two medical officers, three clinical officers, one nursing officer, nurses, midwives, lab technicians, anesthetists, and other support staff.

### Study Population

The study targeted women of reproductive age (18-49) years, who came to the clinic for reproductive health services at the Wakiso Health Centre IV.

### Sample size determination

Determined using the formula for simple random sampling using single proportions given by: (KishLesli,1965 [25])

$$n = \frac{z^2 p(1-p)}{d^2}$$

Where, n= sample size

z=standard deviation usually set at 1.96

p=unknown characteristics of the study population usually 50%, thus 0.5d=degree of inaccuracy by researchers, in this case it is 0.1265

q=1-p =1-0.5=0.5

$$\begin{aligned} n &= (1.96)^2 \times 0.5 \times 0.5 / \\ (0.1265)^2 &= 3.8416 \times 0.25 / 0.01600 \\ &= 0.9604 / 0.016 \end{aligned}$$

$$= 60.025$$

$$= 60 \text{ respondents}$$

Based on the formula by Keish Leslie, the sample size required was equal to 60 respondents.

### **Sampling technique**

The sampling technique employed was simple random sampling [25], which was used to select the study respondents – women of reproductive age (18-49 years) attending reproductive health services at Wakiso Health Centre IV. Each day, a sample was drawn from the pool of women visiting the reproductive health clinic and meeting the aforementioned criteria.

### **Inclusion and Exclusion criteria**

The study included women of reproductive age in Wakiso HCIV who were within the specified age group, capable of answering appropriately, and had given their consent for the study. The study excluded women with limited capacity or an inability to answer appropriately, women who demanded payment to participate, women who had not given their consent, and young women under the age of 18 and those above 50 years of age.

### **Study Variables**

The study addressed both dependent and independent variables. The dependent variables were used to describe the problem under study, which was cervical cancer screening. Independent variables were used to describe factors assumed to cause the problem under study. These factors included knowledge, attitude, and socio-cultural factors affecting cervical cancer screening among women of childbearing age (18-49 years) at Wakiso Health Centre IV."

### **Quality control**

To ensure the reliability and validity of the study, the questionnaire was necessary. It was essential for the study to be conducted in similar areas with similar characteristics to enable the instruments to be redesigned if needed. The pre-testing was therefore conducted in a sub-county with similar environmental features. The sub-county identified with similar characteristics was Fort Portal Regional Referral Hospital. Reliability was ensured by including many similar items on a measure, testing a diverse sample of individuals, and using appropriate testing procedures.

The questionnaire was pre-tested with 15 individuals randomly selected from a different study area. Interviews were conducted with these individuals to determine whether any changes were needed in the questionnaire format based on their comments. Changes were made in the questionnaire to correct any wordings and increase reliability. The data from the pilot study were not included in the final report.

Validity was assessed through content and construct validity. Content validity was defined as the degree to which data collected using a particular instrument represents a specific domain or particular concept. Content validity is established through an extensive process of item selection and refinement in the development of the instrument. Content validity was extensively pretested with questionnaires responded to in another sub-county with similar characteristics.

### **Study instruments**

The researcher used questionnaires and interview schedules, collected data with the help of a trained research assistant. The questionnaire was self-administered and involved both open and closed questions aimed at assessing the factors affecting cervical cancer screening in Wakiso Health Centre IV.

### **Data collection procedure**

The school provided us with the introductory letter, which we presented at the Wakiso Health Centre IV to the relevant authorities. They, in turn, granted us an acceptance letter to proceed with collecting the information we needed at the Reproductive Health Clinic. During the data collection process, we utilized a self-administered questionnaire for literate individuals and an interviewer's schedule for those who were illiterate. The purpose of the research was explained to the respondents to ensure their maximum cooperation. Data collection spanned two weeks, during which a total of six respondents were examined each day for a total of ten days. The researcher enlisted the help of research assistants to aid in data collection. In addition to the interviewer's schedule, the researcher administered questionnaires to the respondents.

### **Data management**

Qualitative data were collected from women of reproductive age (18-49 years) at Wakiso Health Centre IV. Editing was conducted in the field immediately after administering the tools to ensure the completeness of all questions and the accuracy of recorded responses from the respondents. This involved recording transcribing, reading through, and ensuring that the answers given were correctly recorded for each question. Coding was performed manually, with items grouped on paper and tallied in accordance with the order of the items.

### **Statistical Analysis**

Qualitative data was collected from women of reproductive age (18-49 years) at Wakiso Health Centre IV. The qualitative data underwent content analysis. Subsequently, the results were presented in frequency distribution tables, graphs, and charts. The quantitative data in this study were managed and analyzed using descriptive statistics with the assistance of statistical packages for social sciences (SPSS) and Microsoft Excel. Descriptive statistics included means, standard deviations, frequencies, percentages, and cross-tabulations of sample profile characteristics and major patterns.

## RESULTS

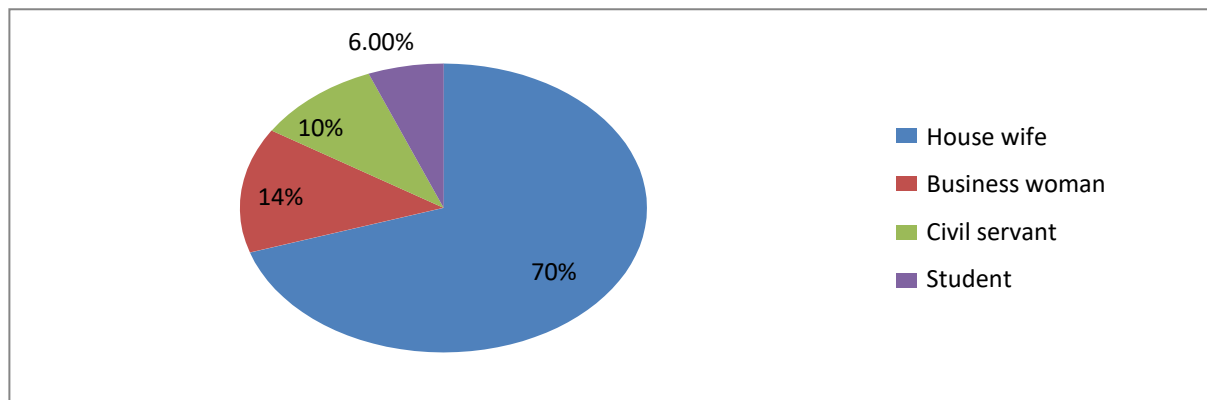
### Demographics.

#### Age of respondent.

Table 1: Distribution of respondents by age.n=60

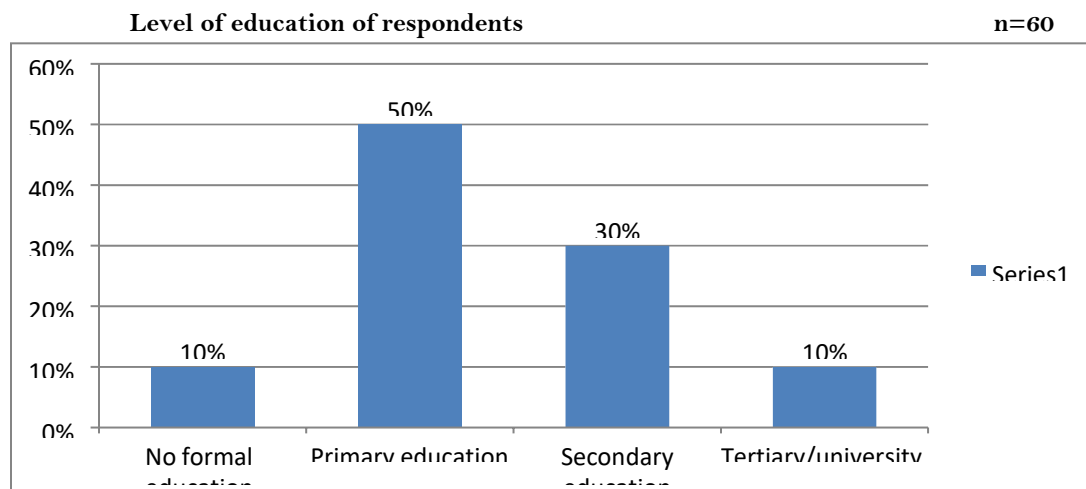
Age of respondent	Numbers of respondents	Percentage (%)
18 – 25	25	42
26 – 30	15	25
31 – 35	10	16
36 – 40	6	10
41 – 45	3	5
46 – 49	1	2
<b>Total</b>	<b>60</b>	<b>100</b>

From table 1 above, the age group 18-25 has the majority of the respondents 25(42%) and the least being 46 -49 with 1(2%) of the respondents.



**Figure 1: Distribution of respondents by occupation.**

According to figure 1 above, the majority of respondents 42(70%) were house wives without any formal employment, 9(15%) were business women, 6(10%) were civil servants while 3(5%) were students.

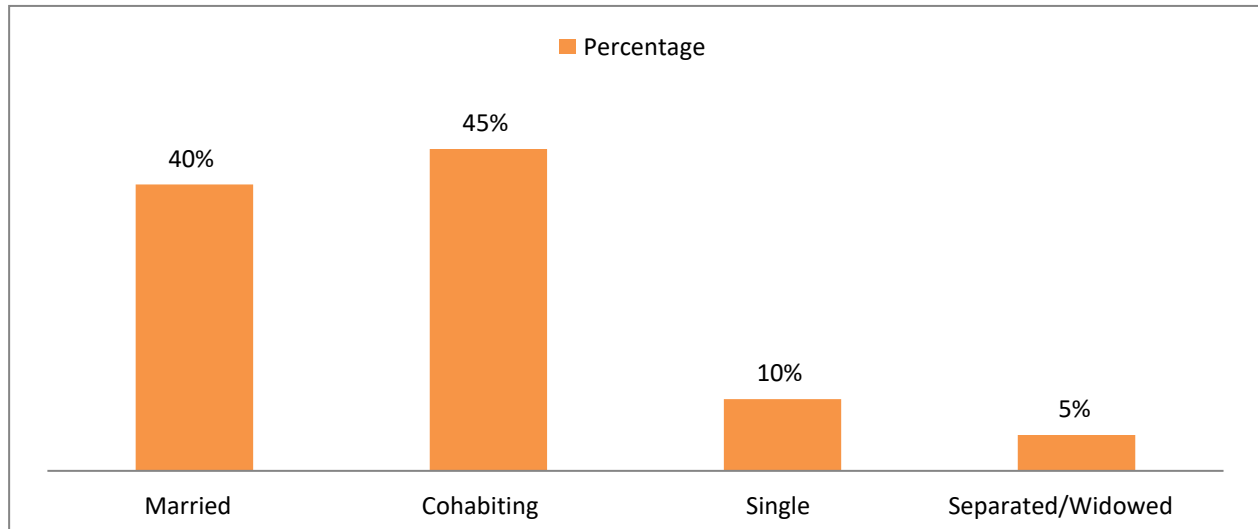


**Figure 2: Level of education of respondents.**

Half of the respondents 30(50%) had attained only primary education, a third 18(30%) had attained secondary education, 6(10%) were illiterate and had not attained any formal education, while only 6(10%) had attained tertiary/ university education.

#### Marital status of respondents.

n=60



**Figure 3: Marital status of respondents.**

Most of the respondents 27(45%) were cohabiting, followed by 24(40%) who were married, 6(10%) and 3(5%) were single and separated respectively.

#### Accessibility to health service.

**Table 2: Table showing distance from the accessible health services.**

n=60

Distance(Km)	Numbers of respondents	Percentage
0-1	24	40
2-3	18	30
4-5	12	20
> 5	6	10
<b>TOTAL</b>	<b>60</b>	<b>100</b>

Majority of the respondent who were accessing the health services 24(40%) were near the unit compared to 6(10%) who could move more than 5 km to the unit.

# Knowledge on Cervical Cancer and Screening.

**Table 3: Knowledge on cervical cancer and cervical cancer screening.**

**n=60.**

Variable	Frequency	Percentage (%)
<b>Heard of cervical cancer?</b>		
Yes	50	83
No	10	17
<b>Responses on women's knowledge on how to suspect cervical cancer.</b>		
After being tested in the hospital	35	58
By observing signs and symptoms	10	15
Don't know	15	25
<b>Heard about cervical cancer screening?</b>		
Yes	48	80
No	12	20
<b>TOTAL</b>	<b>60</b>	<b>100</b>

## Heard of cervical cancer

From table 3 above, majority of the respondents 50 (83%) stated that they had heard of cervical cancer while only 10 (17%) stated not to having heard of cervical cancer.

## Responses on women's knowledge on how to suspect cervical cancer

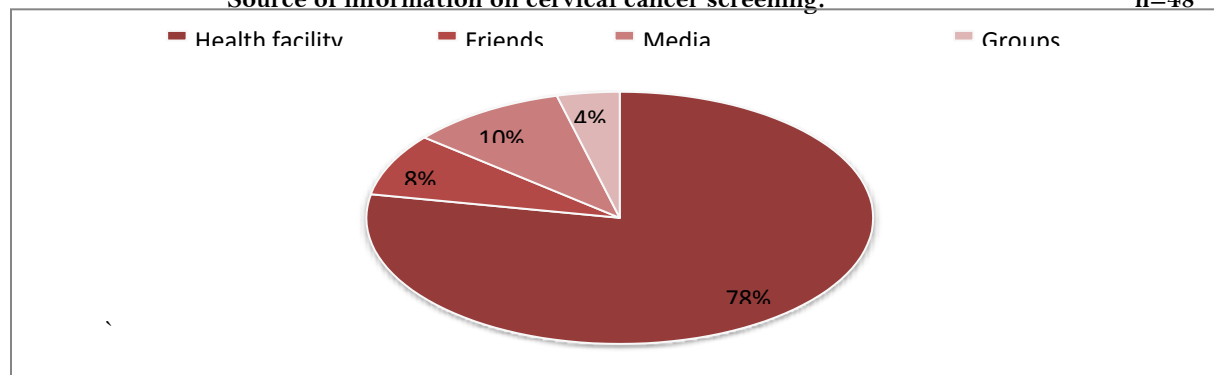
From table 3 above, majority of respondents 35 (58%) stated that they can only suspect cervical cancer after being tested in the hospital, the 10 (15%) stated that by observing signs and symptoms of the disease and the remaining 15 (25%) didn't know what to suspect.

## Heard about cervical cancer screening

From table 3 above, majority of the respondents 48 (80%) stated that they heard about cervical cancer screening whereas only 12 (20%) stated not to having heard about cervical cancer screening.

## Source of information on cervical cancer screening.

**n=48**



**Figure 4: Source of Information on Cervical Cancer Screening**

Majority of the respondents 37 (78%) got the information about cervical cancer screening from the health facility, 5 (10%) from the media, 4 (8%) from the friends and 2 (4%) of respondents got the information from the groups.

#### Responses on whether they think screening for cervical cancer is important.

**Table 4: Participant's responses on whether they think cervical cancer screening is important**

**n=60**

OPTION	Frequency	Percentage (%)
YES	54	90
NO	6	10
<b>TOTAL</b>	<b>60</b>	<b>100</b>

Majority of the respondents 54 (90%) stated cervical cancer screening is important while only 6 (10%) only stated that it is not important.

#### Attitude of respondents towards cervical cancer screening.

##### Ever undergone cervical cancer screening

**Table 5: Ever undergone cervical cancer screening**

**n=60**

OPTION	Frequency	Percentage (%)
YES	7	12
NO	53	88
<b>TOTAL</b>	<b>60</b>	<b>100</b>

Most of the respondents 53 (88%) stated that they have never undergone cervical cancer screening and 7 (12%) of the respondents stated that they ever gone cervical cancer screening.

#### The reasons why never been screened for cervical cancer

**Table 6: Reasons why never been screened for cervical cancer**

**n=53**

Reasons why never been screened	Frequency	Percentage (%)
Fear the pain of the procedure	10	18
Fear of diagnosis	24	45
Lack of time because of work	3	6
Not aware about the availability of the screening test	8	15
Lack of privacy at the hospital	4	8
It is a test for the married.	2	4
It is a test for women with multiple partners	2	4
<b>TOTAL</b>	<b>53</b>	<b>100</b>

More than a third, 24 (45%) of the respondents cited fear of the diagnosis as the barrier to cervical cancer

# Socio-Economic and cultural factors

**Table 7: Socio-economic and cultural factors affecting cervical cancer screening.**

**n=60**

Variables	Frequency	Percentage (%)
<b>Whether cultural beliefs affect the cervical cancer screening?</b>		
Yes	7	11.7
No	53	88.3
<b>Got health education?</b>		
Yes	17	28.3
No	43	71.7
<b>Economic status</b>		
Low	48	60
Medium	18	30
High	6	10
<b>TOTAL</b>	<b>60</b>	<b>100</b>

## Responses on whether cultural beliefs affect cervical cancer screening

From Table 7 above, the majority of the respondents 53(88.3%) stated that cultural beliefs and practices don't affect cervical cancer screening while only 7(11.7%) stated that it does affect cervical cancerscreening.

## Responses on whether got health education

From Table 7 above, the majority of the respondents 43(71.7%) had not been health educated about cervicalcancer screening while 17(28.3%) had been educated on cervical cancer screening.

## Responses on the economic status

From Table 7 above, the majority of the respondents were of low economic status 48 (60%), followed by those of medium economic status 18(30%) and then the least being respondents with a high economicstatus 6(10%).



## DISCUSSIONS

### Demographic Characteristics:

Most of the respondents (25 or 42%) were between 18 and 25 years of age, followed by 15 (25%) aged 26-30 years. The fewest number (1 or 2%) were women between 46 and 49 years of age. The age of the respondents was strongly associated with cervical cancer screening, as 17 (34%) of the respondents had never been tested because they perceived themselves as too young. These women believed that they were too young to develop cervical cancer until they reached an older age. This finding correlates with [26], who reported that in South Africa, women described cervical cancer screening as an inconvenience because they believed they were too young to develop cervical cancer. Regarding occupation, employed women accounted for 56 (80%), compared to the unemployed with only 14 (20%). This aligns with a study conducted by Ahinkorah et al. [27], who concluded that employment opportunities empower women to make decisions about their reproductive lives. The majority of respondents accessing health services (24 or 40%) lived near the unit, while only 6 (10%) had to travel more than 5 km to reach the unit. Some women felt that transportation and distance hindered them from accessing services, as they lived very far from the hospital providing the service. This is in line with studies with earlier studies [28, 29], which stated that a significant number of women in Uganda are too poor to afford transportation costs to health centers and regional referral hospitals that provide cervical cancer screening services.

### Knowledge on Cervical Cancer and Screening:

The majority of women had heard of cervical cancer (50 or 83%) and cervical cancer screening (48 or 80%), but they didn't have a clear definition of cervical cancer. A third of them defined it as a disease that affects the womb (uterus) of a woman, while 8 (16%) defined it as a sexually transmitted disease. Furthermore, the majority of women (40 or 80%) did not know any indicators that suggest the possibility of developing cervical cancer, while 10 (20%) mentioned that they could only know if they were tested in the hospital. This indicates a gross lack of knowledge and misunderstanding of cervical cancer among women. Generally, lack of knowledge is a major deterrent to seeking cancer screening services [30]. Most of the respondents (53 or 88%) stated that they had never undergone cervical cancer screening, while 7 (12%) had. This may be due to the fact that most women do not understand the benefits of screening for cervical cancer, which include early detection and prevention, and so they do not consider it important. Some women may have heard of cervical cancer but may not understand what it is and how serious it can be. The majority of respondents (35 or 58%) stated that they could only suspect cervical cancer after being tested in the hospital, while 10 (15%) stated that they could do so by observing signs and symptoms of the disease, and the remaining 15 (25%) didn't know what to suspect. This lack of knowledge puts the majority of the respondents at risk, as they lack basic knowledge of how cervical cancer presents. This correlates with Hyacinth and colleagues [31], who also noted a lack of knowledge on cervical cancer and the Pap smear test among respondents, and many women did not have a clear understanding of the meaning of an abnormal cervical smear and the need for early detection of cervical cancer. In another study conducted by Myambe [32] on safety, acceptability, feasibility, and implementation of cervical cancer screening in Zambia, lack of knowledge, even among healthcare workers, was demonstrated.

### Attitude towards Cervical Cancer Screening:

The study found that 24 (45%) women feared being diagnosed with cervical cancer, demonstrating stigma towards cancer diagnosis among women. Therefore, some women may avoid attending screening to prevent being known to have cervical cancer. This aligns with Svihrova et al. [33], who found that some women in Poland and Slovakia were afraid of the potential shame if diagnosed with cervical cancer, acting as a barrier to attending screening, particularly among the older generation. In Africa, being diagnosed of cancer is perceived as a death sentence so many especially the uneducated individuals avoid cancer screening [34-36]. The study also found that almost all the women sampled (53 or 88%) had never been screened for cervical cancer, and of these, 10 (18%) of women feared the pain of the screening procedure. The fear of pain is attributed to misconceptions and lack of knowledge about cervical cancer screening, as some women think the procedure involves cutting into the uterus. These misconceptions can discourage women from seeking cervical cancer screening. This is in agreement with Chortey et al. [37], who found that the fear of pain was a barrier to cervical cancer screening, particularly for first-time participants. The study showed that the majority of the respondents (54 or 90%) stated that cervical cancer screening is important, while only 6 (10%) stated that it is not important. While only a few of the women had actually screened for cervical cancer, all the women expressed their willingness to screen, noting that it helped improve early diagnosis. This is in line with studies conducted in Nigeria, South Africa, and Tanzania, which showed that the willingness to be screened for cervical cancer was high. However, some of the women maintained that cervical cancer had no cure and that a diagnosis meant death. This contrasts with a study in Malawi, which found that some women had a fatalistic view of cervical cancer, while others had high hopes of being cured through medicine.

### Socio-economic and Cultural Factors

The study showed that the majority of the respondents (53 or 88.3%) stated that cultural beliefs and practices do

## Access

not affect cervical cancer screening, while only 7 (11.7%) stated that it does affect cervical cancer screening. This is in contrast with some cultures in Uganda, where reproductive health issues are normally shrouded in secrecy, and women are not at liberty to discuss such issues freely [38], negatively impacting their ability to gain knowledge and seek cervical cancer screening services, even when symptoms are present. However, on the contrary, it is believed that culture is not a major barrier if women's knowledge and awareness are very high [38]. Majority of the respondents (43 or 71.7%) had not been educated about cervical cancer screening, while 17 (28.3%) had been educated on cervical cancer screening. Many of the women reported that they had not screened for cervical cancer because they were not aware of its importance. Some were only introduced to cervical cancer screening when they came to immunize their children, revealing the selective offering of cervical cancer screening services. Health education can help increase knowledge about cervical cancer and encourage the adoption of cervical cancer screening. Health education can be offered to women accessing different kinds of services in hospitals. The study findings suggested that the majority of the respondents were of low economic status (48 or 60%), followed by those of medium economic status (18 or 30%), and then the least being respondents with a high economic status (6 or 10%). This

### CONCLUSION

This study revealed that low cervical cancer screening rates among women of reproductive age in the Wakiso District were primarily due to a lack of awareness and negative perceptions surrounding the screening process. Thus, a need for education, improved access to healthcare services, and poverty alleviation measures to address these barriers and promote cervical cancer screening. The public should be sensitized about the existence and severity of cervical cancer and the importance of early and routine screening. Information on the availability of cervical cancer treatment should be made available to the public to reduce anxiety associated with the outcome of cervical cancer screening.

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