

# Cervical Cancer Screening Sources of Information Availability for Female Students of the University of Nairobi

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## **Abstract:**

### ➤ **Background:**

Availability of sources of information is known to enhance uptake of a service. Cervical cancer screening sources of information availability is the first step in the development of evidence-based interventions aimed at improving cervical screening uptake. Studies focused on younger age groups where the desire for knowledge is very high are likely to be impactful.

### ➤ **Objective:**

To assess availability of information sources that influence cervical cancer screening among female students.

### ➤ **Materials and Methods:**

This was a descriptive cross sectional study undertaken at a Kenyan university targeting female students aged 18-25yrs. Data was collected between first September and 31st December 2022 using interviewer administered semi structured questionnaires. The data was saturated until the required sample size was reached. Descriptive statistics was done and the data in frequencies and percentages interpreted.

### ➤ **Result:**

There were 226 study participants with age ranging from 18 -25yrs. The majority (45.6%,n=103) of the respondents were in their first year of study and 92.4%(n=209) of the respondents were unmarried. Three thematic themes showed response to the available source of information influence screening. Most (60.1%, n=136) respondents stated that their sources of information on cervical cancer screening were media i.e Television (Tv), radio and newspaper. 83%(n=187) had never had any form of cervical cancer screening with only 5% (n=11) having annual screening. Only 7.5%(n=17) and 2.7% (n=6) identified early sexual exposure and multiple sexual partners respectively as risk factors for cervical cancer. Information influencing screening include media 60.1%,n=136), clinician(15.4%,n=35), friends(12.8%,n=29) and family members(11.5%, n=26).

### ➤ **Conclusion:**

These results showed available source of information influence cervical cancer screening contribute to impediments for screening among University female students. Some of the ways to influence screening is media such as internet, television radio but word of mouth is a strong indicator that influence screening and risk factors as well as vaccine.

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## I. INTRODUCTION

In Kenya, studies show that cervical cancer screening rate is between 1% to 36% which is below the expected screening levels of 70% by 2030 set by the World Health Organization(1). Poor sources of information availability that influence the screening are some of the main reasons for women not seeking cervical screening in most of less developed countries including sub-Saharan Africa(2). The United States of America sources of information availability greatly influenced awareness and led to significant decline in cervical cancer burden due to promotion of screening uptake(3). In Zimbabwe, information availability on the human papilloma virus (HPV) and cervical screening, prevention, treatment are found to be complicated for women to understand and therefore, do not have much implication among them(4). This has contributed to low screening uptake and caused heavy disease burden. In Kenya, research carried out in major towns on cervical cancer screening sources of information availability are inadequate and do not influence screening uptake which is low (5). The preference of cervical screening increases when women have access to the source of information regarding diagnosis, early treatment, and prevention of cervical cancer(6). Currently, the Kenyan government, universities, local and international non-governmental organizations are trying to address this inadequate access to source of information availability that influences screening although uptake is still low (7). There are few studies that focused on pre-screening age groups yet, this age group is an ideal target group for behavioural interventions to prevent the disease in Kenya. This age population is in their developmental stage and most of them are sexually active (8). There are issues that may contribute to effective prevention of this disease such as source of information availability that influence the screening, awareness, and as well as risky health behavior. This study aimed to assess the available source of information that influences cervical cancer screening among female students aged 18-25 years at the university of Nairobi population.

## II. MATERIALS AND METHODS

### ➤ Study Design, Setting and Population

A descriptive, exploratory study design was used. The study was carried out at the University of Nairobi and targeted only female students. Data was collected between September to December 2022. Field notes were taken with each interview, which lasted between 30 min and 45 minutes

and was conducted in English. Semi structured questionnaires were used and were administered by the investigators. The questionnaire had 4 sections including sociodemographic characteristics, screening status, knowledge on risk factors, and sources of information.

### ➤ Sampling Technique

This study utilized convenient sampling method with all female students aged 18-25yrs and giving informed consent being included.

### ➤ Data Analysis

Descriptive data was analysed by used of a dynamic method that allowed flexibility to findings, and interpretation and sorting of the data sets into various forms. The factors were defined and interpreted in the description form of tables. It was presented in frequencies and percentages.

### ➤ Ethical Considerations

The proposal received ethical clearance from the Ethics and Research committee, National Commission for Science Technology and Innovation (NACOTSI) (Approval Number:P/17/65448/18985). Necessary approvals were sought from university of Nairobi board of post graduate studies and African Women's Studies Centre. Informed Consent from all study participants was obtained. Additional measures were taken to protect respondent's privacy and confidentiality, including the collection of de-identified data. Electronic data was protected and maintenance of paper-based data files (consent forms) were locked in filing cabinets in locked rooms under the supervision of the lead investigator.

## III. RESULTS

### ➤ Sociodemographic Characteristics

The study evaluated 226 female students from 1st to 4th year of study across the six faculties of the University of Nairobi based in the county of Nairobi. The majority (49%,n=111) of the respondents were in their first year of study while 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> year were 23% (n=52), 43% (n= 59) and 2% (n=4) respectively, The religion of those interviewed included: Christian protestant (57%,n=129), Catholic (40.7%,n=92), Muslim (2.2%, n=5). 92.4 % (n=209) of the respondents were unmarried with the majority 98.6% (n=223) also being unemployed. This is shown in table 1 below.

Table 1 Sociodemographical Characteristics

N=226	Variables	Frequency,n	Percent,%
Age	18-25	226	100
Years of Study	1 <sup>st</sup> year	111	49
	2 <sup>nd</sup> year	52	23
	3 <sup>rd</sup> year	59	26
	4 <sup>th</sup> year	4	2
Marital status	Married	3	1.3
	Not married	223	98.6
Religion	Catholic	37	16
	Protestant	50	22

	Muslim	6	3
Residence	Hall of residence	154	68
	Private	25	11
	Home	57	25
Economic Status	Unemployed	217	96
	Employed	9	4

➤ *Cervical Cancer Screening Status*

74 % (n=168) were aware of cervical cancer screening and its consequence. 83% (n=187) had not thought of seeking the screening while 26% (n=58) were not aware about cervical cancer screening information and where to go for

screening. The respondents screening frequency 2% (n=4) mentioning that they go for screening after every two years to and 5% (n=11) responded that they are screened annually. This is demonstrated in table 2 below

➤ *Student's Cervical Cancer Screening Status*

Table 2 Student's Cervical Cancer Screening Status

Variables	Response	Frequency, n	Percentages, %
Cervical cancer screening information	Aware	168	74
	Not aware	58	26
Screening status	Never screened	187	83
	Screened	30	13
	Every two years	4	2
	Annually	5	2
Information on treatable stages of cervical cancer	Is treatable at stage 1,	108	47
	Do not, know,	102	45
	Is treatable at any stage	11	5
	Is not treatable stage	5	2

➤ *Information on Females at Increased Risk of Cervical Ca.*

80% (n=180) stated that all women are at increased risk of developing cervical cancer in future because of the environment they are leaving while 4.8% (n=11) respondent said women in child bearing age are at risk of getting cervical cancer. 7.5% (n=17) responded response that those who engage in sex in early age are at risk contracting cervical

cancer later in life if not screened with 2.7% (n=6) mentioning women with more than one sexual partner as being at risk of getting cancer of the cervix in future. Some respondents (5.3%, n=12) said cancer of the cervix is common to older women because of prolonged exposure to sexual activities. This is shown in table 3.

Table 3 Information on Females at Increased Risk of Cervical Ca.

Females at risk of Cervical cancer	Frequency, n	Percentage, %
All women	180	80
Child bearing age Women	11	5
Women having sex at early age	17	8
Multiple sexual partners	6	3
Older women	12	5

➤ *Cervical Cancer Screening Sources of Information*

Most (60.1%, n=136) respondents stated that their sources of information on cervical cancer screening were media i.e Television (Tv), radio and newspaper as well as the

internet. Other sources included family members (11.5%, n=26), friends 12.8%, n=29 friends and clinicians (15.4%, n=35) as illustrated in Table 4.

Table 4 Cervical Cancer Sources of Information

Sources of information on Cervical cancer screening	Frequency, n	Percentage, %
Media	136	60.1
Clinician	35	15.4
Friends	29	12.8
Family members	26	11.5

#### IV. DISCUSSION

This study showed that the majority (60.1%, n=136) of participants got their information on cervical cancer

screening from media including television, radio and newspapers. This contrasts to study for Knowledge, attitude and practice for cervical cancer prevention and control among women in childbearing age Ethiopian that showed only 17

(n=38) of the respondents relied on media such TV, Radio and newspapers for their information on screening (9). However, a study in Uganda found that 70.2 % (n=158) of the participants got their information on screening from radio (10).

A large number of participants (83%, n=187) in this study also had never had any form of cervical cancer screening with only 5%(n=11) saying they had annual cervical cancer screening. Similar findings have been reported in other less developed economies and especially in sub Saharan Africa. A study among young women in Southern Ethiopia found that only 10%( n=58) of the participants had ever undergone screening(9). Study in Uganda also found only 38.1 %(n=2) of the study participants to have undergone screening(10). This is a far cry from the high rates in high incomes countries that have screening rates which subsequently contributes to low burden of cervical cancer.

However, this study also found that 74% of the participants were aware of cervical cancer and consequences of not screening. This shows a clear discrepancy between information that influence and uptake of screening. This contrasts to a study in Ethiopia that found poor knowledge scores (53.7%, n=126) among participants (9). The same study also found factors such as unavailability of the service nearby, information of where to get the service, social economic effects and fear of discrimination is some of the reasons for having never been screened before.

This study also showed that the majority of the participants had little information about the risk factors of cervical cancer. Only 7.5% of the participants knew that early sexual activity expose to risk of getting the virus and a small number of 2.7% knew that multiple sexual partners increased the risk of cervical cancer. This contrasts to an Ethiopian and Nigerian study that showed that 28.3 %(n=165) and 37.3%(n=228) of women knew that multiple sexual partners increases risk of cervical ca(11). A study among women in Uganda (10) also found knowledge on risk factors of cervical cancer to be high with 73.9 %(n=665) and 78.4%(n=706) respectively identifying early sexual exposure and multiple sexual partners as some of the risk factors.

## V. CONCLUSION

The study found that most of the participants receives information about cervical cancer screening through traditional media but word of mouth from various source cause impact of screening. Majority of the participants had not had any information nor knowledge for cervical screening before. Many of the study participants also had now information regarding risk factors for cervical cancer. Future studies should look to address the reasons for low uptake of screening and ways to mitigate the challenge. Healthcare policy makers should also look at ways to improve available source of information influence cervical cancer screening through digital media and word of mouth.

## ➤ Disclosure Statement

No potential conflict of interest was reported by the author(s).

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