

FACTORS ASSOCIATED WITH UPTAKE OF CERVICAL CANCER SCREENING AMONG WOMEN OF REPRODUCTIVE AGE IN MIGORI COUNTY REFERRAL HOSPITAL

P.Otiende^{1*}, G. Kikuvi² and J. Mutai³

^{1,2}Department of Public Health, Jomo Kenyatta University of Agriculture of Agriculture and Technology, P.O Box 62000-00200, Nairobi, Kenya

³Center for Public Health Research, Kenya Medical Research Institute, P.O Box 20752-00202, Nairobi, Kenya.

***Corresponding Author**

Phanice Otiende,

Email: otiendephan@gmail.com

Published: 19 June 2019

Copyright © Otiende et al.

ABSTRACT

The study objective was to determine factors associated with uptake of cervical screening among women of reproductive age. A descriptive cross-sectional facility-based design was used. The study area was Migori County Referral Hospital in Migori County, Kenya and a total of 213 participants took part. The study found out that there was low uptake of cervical cancer screening with only 15.2% of the respondents screened. Education is the only socio-demographic characteristic not statistically significant ($p=0.181$). Screening methods didn't have any significance on the uptake of screening at $P=0.1$. Knowledge of screening procedures and duration of results availability had significance on uptake of screening ($P<0.001$). The study recommends increased awareness on screening benefits and risk factors associated with cervical cancer. Screening should also be made free irrespective of HIV status. Studies on the reasons for low uptake should be done using FGDs to ascertain the causes and interventions.

Key Words: Cervical cancer; Screening; Barriers; Knowledge; Awareness; Uptake ;Availability ;Cost

Cite this article: Otiende, P., Kikuvi, G. & Mutai, J. (2019). Factors Associated with Uptake of Cervical Cancer Screening Among Women of Reproductive Age in Migori County Referral Hospital. *European International Journal of Science and Technology*, 8(5), 11-25.

1. INTRODUCTION

Cervical cancer is ranked as the second most common cancer in women worldwide and commonest among women of child bearing age in developing countries. This cancer contributes to about 12% of the cancers in women (WHO, 2002) and its burden seems to be increasing in developing countries as significant decline in morbidity and mortality is experienced in developed countries. This is attributed to lack of screening services and financial constraints associated with these services among women in the developing countries (Abiodun et al., 2014). Lack of or poor organization of screening services on cervical cancer in developing countries has led to increase in deaths associated with cervical cancer (Rugendo, 2016).

2. BACKGROUND

Globally, there were an estimated 527,624 new cases of cervical cancer and an estimated 265,653 deaths from cervical cancer. This is according to International Agency for Research on Cancer (GLOBOCAN) 2012 report. The report further reports that 87% of cervical cancer deaths occur in the less developed regions of the world. The burden of cervical cancer is quite low in the developed countries of the world. In Africa, cervical cancer incidences are still very high in sub-Saharan Africa; the rate can be up to 15 times higher in poor countries compared with industrialized ones. High mortality rates in developing countries are due to lack of efficient and high-quality screening programs. (Sherris et al., 2009). Most screening activities are done as pilot or research projects which are discontinued on completion. In Kenya, cervical cancer is the most common cancer and the leading cause of cancer related deaths among women of reproductive age. Currently the estimated annual number of cases in Kenya is 2,454 while the annual number of deaths due to cervical cancer is 1,676. It is projected that by the year 2025, the number of new cervical cancer cases annually will reach 4,261 (Ogeto, 2012).

Cancer cases had risen in Migori County and most people take the disease for granted and are often misguided by myths and misconceptions that the disease was caused by witchcraft and ignorance. About 16,000 women only were able to get screened for cervical cancer in 2015 and yet there are thousands of women who could be having cervical cancer and are not aware (Onyango, 2016).

Despite the magnitude of the problem in Kenya and the fact that it is easily preventable, the cervical cancer screening coverage in Kenya for all women 18 to 69 years of age is only 3.2% that is according to the ministry of Health and Public Sanitation report of 2012. Further, cervical cancer is said to be more prevalent in poor and rural communities who do not have access to screening services. This is attributed to the fact that these women are more impoverished and less educated, hence are likely to lack financial means to seek these screening services and to be unaware of cervical cancer and methods of preventing it (Gatune and Nyamongo, 2005).

3. METHODOLOGY

3.1 Study Subjects

This study was done in Migori County Referral Hospital in Migori County which has about 263,629 women of reproductive age (KNBS, 2014). Participants were a convenience sample of 213 women of reproductive age (15-49) who were attending the hospital at the time of study and had consented to take part in the study and also were able to understand the English language. A hospital registration clerk help in obtaining the demographic data for these women while a hospital nurse helped with consent administration. During consent administration, an introduction about the study was made to

the participants. The participants were made aware of the whole purpose of the study, benefits, risks involved, duration of the study, and how the questionnaires were administered. Once the participants understood all these, they were required to sign the consent form before being given the questionnaires for filling. Once the participant finished filling the questionnaires, the forms were collected and stored safely in a sealed envelope and kept where only the researcher had access to them. The participants were then released to go and continue with their daily activities. Key informant interviews were conducted by the researcher on individuals who were able to give more insight on the uptake of cervical cancer screening services. This included the head nurse from PMTCT, 3 clinical officers, and a nurse from the patient support department.

Study participants were assured of confidentiality by use of codes on questionnaires to maintain anonymity of all participants and keep their information confidential.

3.2 Study design

A descriptive cross-sectional facility-based design was used. It employed the use of both qualitative and quantitative data collection methods. Questionnaires and Key informant guides were used to collect the data.

3.3 Data Management and Analysis

Data from all questionnaires were coded and entered in the Statistical Package for social scientists (SPSS) Version 25, which was used both as a database and for data analysis. Frequency distribution and analysis of the data was produced and the descriptive statistics was used for tabular and graphic presentation of the findings. Chi-square test and regression analysis were used to measure the strength of associations between variables where a p-value of \geq or <0.05 was considered to be statistically significant. Qualitative data was grouped in themes.

4. RESULTS

4.1 Demographic characteristics of women of reproductive age attending Migori County referral hospital.

The study findings showed that the mean age of the study respondents was 24.92 (SD 7.24) years with median age of 24 years (inter quartile range 12). Most of the respondents 87 (41.2%) were aged between 20 to 29 years while only one respondent was more 40 years old (0.5%). Majority of the study respondents 112(52.6%) were married while 89 (42.7%) were single. Most of the study respondents 81 (39.5%) were students while 21.4% were business women. However 15.2% and 13.3% were housewives and farmers respectively. Most of the study respondents 92 (44%) had attained primary education, (76) 36% had secondary schools education while only 14 (6%) had university education. These characteristics are summarized in table 1.

Table 1: Demographic characteristics

Demographic characteristics	Frequency	Percent
Age		
15 - 19	62	29.4
20 - 29	87	41.2
30 - 39	61	28.9
40 - 49	1	0.5
Occupation		
Business	45	21.6
Customer care	1	0.5
Doctor	1	0.5
Farmer	28	3.5
House wife	32	15.4
Lab tech	1	0.5
Orthopedic	1	0.5
Saloonist	3	1.4
Student	81	38.9
Tailor	1	0.5
Teacher	14	6.7
Marital status		
Single	89	42.2
Married	112	53.1
Widowed	5	2.4
Divorced	2	0.9
Separated	3	1.4
Education		
Primary	92	43.6
Secondary	76	36
College	29	13.7
University	14	6.6

Cervical cancer awareness

The awareness information collected from the study respondents included: knowledge, history, risk factors, screening procedures, reasons for screening, age at first screening, frequency of screening, benefits of screening, and reasons for not screening.

4.5.1 Knowledge, screening and history of cervical cancer

The study showed that majority of the study respondents 178 (84%) had heard of cervical cancer screening. However, only 32 (15.2%) had undertaken cervical cancer screening and only 8 (3.8%) had a history of cervical cancer. This corresponds with what all the key informant respondents said, "Women who come to his hospital are aware of cervical cancer screening. Our clinical officers and nurses talk to them about being screened for cervical cancer".

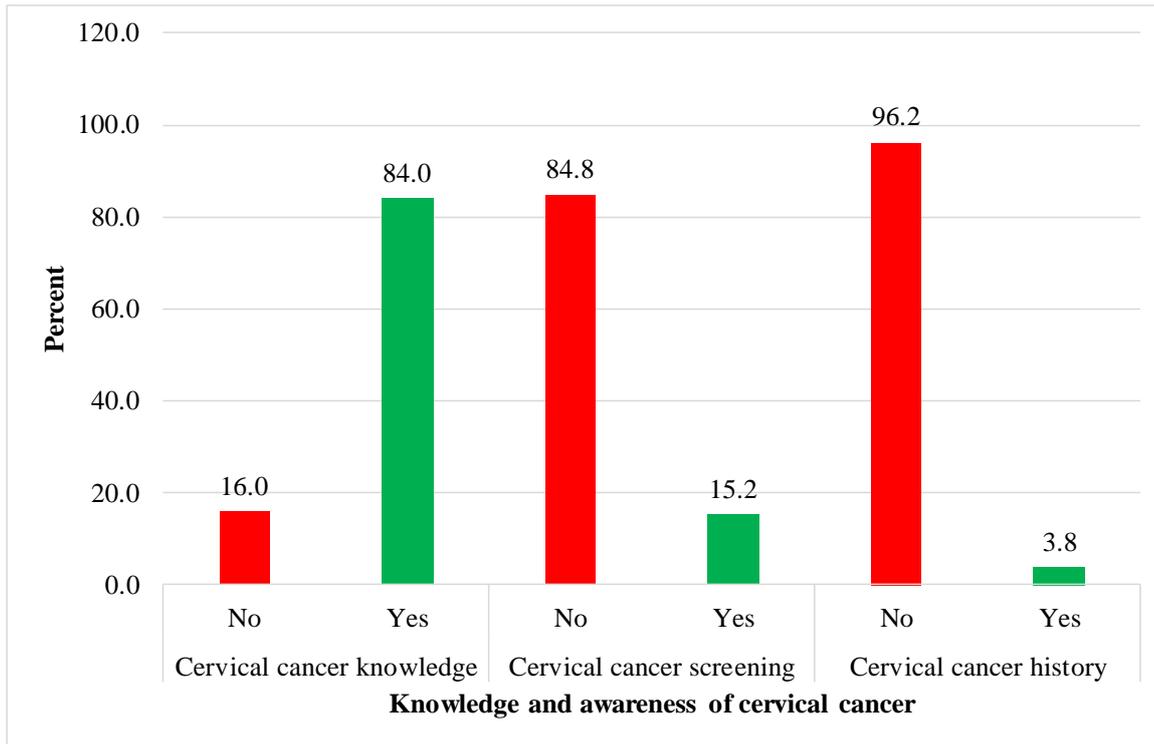


Figure 1: Knowledge, screening and history of cervical cancer

4.2 Knowledge and Awareness on Cervical Cancer Screening

The study findings showed that majority of the respondents 189 (92.2%) had knowledge on cervical cancer screening procedures. However, 89.9% of these respondents had never been screened of cervical cancer. Additionally, majority of these respondents had knowledge on visual inspection of cervical cancer using Lugol's iodine. This was echoed by the response from one of the key informants who said, "Women in this hospital are aware that they need to come for cervical cancer screening" Majority of the study respondents 121 (61.7%) did not know when to start screening for cervical cancer. The main reason for cervical cancer screening was for preventive measures 34 (68%). Of all the study respondents who had been screened, 26 (12.5%) had only been screened once. This is summarized in the table 2 below.

Table 2: Knowledge and awareness on cervical cancer screening

Awareness (Knowledge)	Frequency	Percent
Knowledge of cervical cancer		
No	33	15.6
Yes	178	84.4
History of cervical cancer		
No	201	96.2
Yes	8	3.8
Knowledge of cervical cancer screening procedures		
No	189	92.2
Yes	16	7.8
Cervical cancer screening methods		
Pap smear test	6	20.0
Visual inspection using acetic acid (VIA)	2	6.7
Visual inspection using lugol's iodine (VILI)	10	33.3
Colposcopy	6	20.0
Biopsy	6	20.0
Start of cervical cancer screening		
From 15 years and above	3	1.5
When one becomes sexually active	72	36.7
Don't know	121	61.7
Reasons for cervical cancer screening		
Preventive measures	34	68.0
Diagnostic purposes	12	24.0
Regular check-up (pap smear)	2	4.0
When using UID/oral contraceptives	2	4.0
Cervical cancer screening frequency		
Never	176	43.6
Yearly	4	1.9
Every 3 years	2	1
Once	26	12.5

4.3 Risks associated with cervical cancer

Figure 2 shows the risks associated with cervical cancer. Majority of the study respondents 61.4% did not know the risks associated with cervical cancer. The analysis showed that 28.6% of the respondents believed that positive family history of cervical cancer as a risk associated with the cancer. However, 35.3% did not believe that contact with relative with cervical cancer was a risk associated with the cancer.

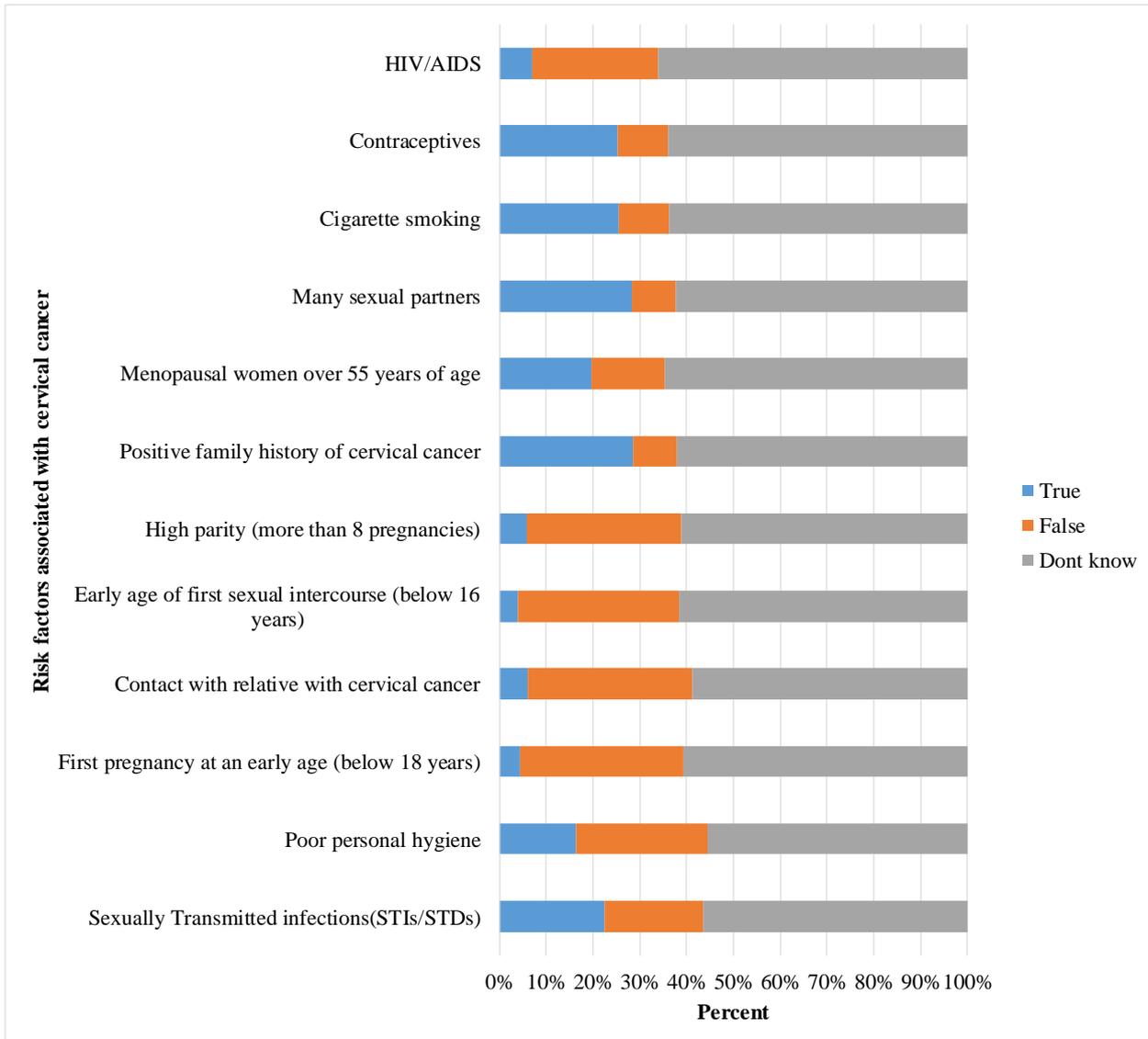


Figure 2: Risks associated with cervical cancer

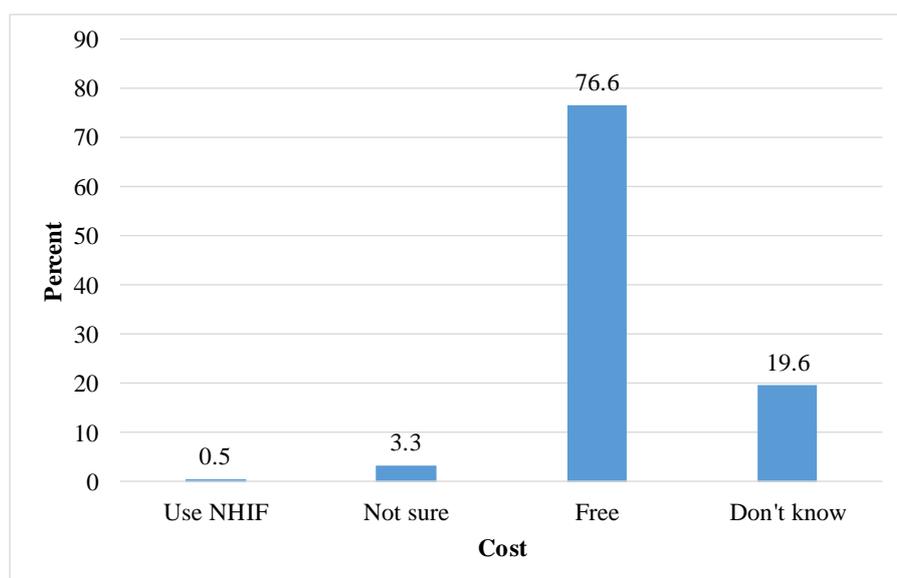
4.4 Availability and accessibility of cervical cancer screening services

This study showed that the mean transport cost of the study respondents was 80.05 (SD 58.83) shillings with median cost of 70 Kenyan shillings (inter quartile range 50). Majority of the study respondents 107 (51.4%) used 50 – 90 Kenyan shillings as the cost of transport when they travelled to the healthfacility.

Table 4: Availability of cervical cancer screening services

Availability	Frequency	Percent
Accessibility (Km)		
< 1km	31	14.9
1-2 kms	88	42.3
3-4 kms	64	30.8
> 4 kms	25	12
Transport (Kenyan shillings)		
< 50	40	19.2
50 - 90	107	51.4
100 - 140	29	13.9
≥ 150	32	15.4

Majority of the study respondents 158 (76.3%) knew they could receive free cervical cancer screening in the health facility while 41 (19.9%) did not know whether the services were free.

**Figure 3: Cost of cervical cancer screening.**

4.6 Factors Associated with uptake of cervical cancer screening.

The table below shows demographic factors associated with uptake of cervical cancer screening. Logistic regression was performed to ascertain the effects of age, occupation, marital status and education on the uptake of cervical cancer screening. In logistic regression, age was categorized as being less than 24 years or having an age that was equal to, or above 24 years. Occupation was categorized as either employed or unemployed. The employed comprised of business, customer care, doctor, farmer, lab tech, orthopedic, saloonist, tailor or teacher. The unemployed were housewife or student. Marital status was categorized as either married or single. The single comprised of single, windowed, divorced and separated. The level of education was categorized as primary or post primary, with the post primary comprising of: secondary, college and university. The respondents who were 24 years old or more were more likely to uptake cervical cancer screening (OR 5.11, 95% CI 1.88 – 13.86, P = 0.001). Additionally, respondents who were employed were more likely to uptake cervical

cancer screening (OR 5.11, 95% CI 1.88 – 13.86, P = 0.001). Furthermore, the respondents who were married were more likely to uptake cervical cancer screening (OR 2.58, 95% CI 1.13 – 5.89, P = 0.024).

Table 5: Association between demographic characteristics and cervical cancer screening

Demographic characteristics	n	Cervical cancer screening		Mean (SD)	Median (IQR)	X ²	df	P
		No	Yes					
Age								
15 - 19	62 (29.4)	59 (95.2)	3 (4.8)	24.92 (±7.24)	24.00 (12)	14.948	3	0.002
20 - 29	87 (41.2)	74 (85.1)	13 (14.9)					
30 - 39	61 (28.9)	46 (75.4)	15 (24.6)					
40 - 45	1 (0.5)	0	1 (100)					
Occupation								
Business	45 (21.6)	37 (82.2)	8 (17.8)	36.576	10	<0.001		
Customer care	1 (0.5)	0	1 (100)					
Doctor	1 (0.5)	0	1 (100)					
Farmer	28 (3.5)	25 (89.3)	3 (10.7)					
House wife	32 (15.4)	27 (84.4)	5 (15.6)					
Lab tech	1 (0.5)	0	1 (100)					
Orthopedic	1 (0.5)	1 (100)	0					
Saloonist	3 (1.4)	2 (66.7)	1 (33.3)					
Student	81 (38.9)	77 (95.1)	4 (4.9)					
Tailor	1 (0.5)	0	1 (100)					
Teacher	14 (6.7)	9 (64.3)	5 (35.7)					
Marital status								
Single	89 (42.2)	83 (93.3)	6 (6.7)	20.27	4	<0.001		
Married	112 (53.1)	89 (79.5)	23 (20.5)					
Widowed	5 (2.4)	5 (100)	0					
Divorced	2 (0.9)	0	2 (100)					
Separated	3 (1.4)	2 (66.7)	1 (33.3)					
Education								
Primary	92 (43.6)	80 (87.0)	12 (13.0)	4.879	3	0.181		
Secondary	76 (36.0)	67 (88.2)	9 (11.8)					
College	29 (13.7)	21 (72.4)	8 (27.6)					
University	14 (6.6)	11 (78.6)	3 (21.4)					

n - Observed count; (%) - Percentage; X² - Chi square test; df - degree of freedom; P - P value (level of significance <0.05);

SD - Standard deviation; IQR - Interquartile range

Association between knowledge and cervical cancer screening

Table 6: Association between knowledge and cervical cancer screening

Awareness (Knowledge)	n	Cervical cancer screening		X ²	df	P
		No	Yes			
Knowledge of cervical cancer						
No	33 (15.6)	32 (97.0)	1 (3.0)	4.478	1	0.034
Yes	178 (84.4)	147 (82.6)	31 (17.4)			
History of cervical cancer						
No	201 (96.2)	173 (86.1)	28 (13.9)	7.72	1	0.005
Yes	8 (3.8)	4 (50.0)	4 (50.0)			
Knowledge of cervical cancer screening procedures						
No	189 (92.2)	170 (89.9)	19 (10.1)	48.478	1	<0.001
Yes	16 (7.8)	4 (25.0)	12 (75.0)			
Cervical cancer screening methods						
Pap smear test	6 (20.0)	3 (50.0)	3 (50.0)	7.778	4	0.1
Visual inspection using acetic acid (VIA)	2 (6.7)	2 (100)	0			
Visual inspection using lugol's iodine (VILI)	10 (33.3)	5 (50.0)	5 (50.0)			
Colposcopy	6 (20.0)	6 (100)	0			
Biopsy	6 (20.0)	2 (33.3)	4 (66.7)			
Start of cervical cancer screening						
From 15 years and above	3 (1.5)	0	3 (100)	18.299	2	<0.001
When one becomes sexually active	72 (36.7)	63 (87.5)	9 (12.5)			
Don't know	121 (61.7)	105 (86.8)	16 (13.2)			
Reasons for cervical cancer screening						
Preventive measures	34 (68.0)	15 (44.1)	19 (55.9)	2.749	3	0.432
Diagnostic purposes	12 (24.0)	3 (25.0)	9 (75.0)			
Regular check-up (pap smear)	2 (4.0)	1 (50.0)	1 (50.0)			
When using UID/oral contraceptives	2 (4.0)	0	2 (100)			
Cervical cancer screening frequency						
Never	176 (43.6)	176 (100)	0	208	3	<0.001
Yearly	4 (1.9)	0	4 (100)			
Every 3 years	2 (1.0)	0	2 (100)			
Once	26 (12.5)	0	26 (100)			

n - Observed count; (%) - Percentage; X² - Chi square test; df - degree of freedom; P - P value (level of significance <0.05);

There was a significant association in the knowledge of screening procedures in regards to cervical cancer screening. ($\chi^2 = 48.478$; $df = 1$; $P < 0.001$) while there was no significant association in the knowledge on screening methods in regards to cervical cancer screening. ($\chi^2 = 7.778$; $df = 4$; $P = 0.1$). Further, there was a significant association on when to start screening for cervical cancer in regards to cervical cancer screening. ($\chi^2 = 18.299$; $df = 2$; $P < 0.001$). In addition, no significant association was noted between reasons for being screened and cervical cancer screening. ($\chi^2 = 7.778$; $df = 4$; $P = 0.1$). A significant association in the frequency of screening in regards to cervical cancer screening. ($\chi^2 = 208.0$; $df = 3$; $P < 0.001$) was also noted.

4.5 Association between availability and cervical cancer screening

Table 7: Association between availability and cervical cancer screening

Availability	n	Cervical cancer screening		Mean (SD)	Median (IQR)	X ²	df	P
		No	Yes					
Accessibility (Km)								
< 1km	31 (14.9)	27 (87.1)	4 (12.9)					
1-2 kms	88 (42.3)	75 (85.2)	13 (14.8)					
3-4 kms	64 (30.8)	56 (87.5)	8 (12.5)			2.022	3	0.568
> 4 kms	25 (12.0)	19 (76.0)	6 (24.0)					
Transport (Kenyan shillings)								
< 50	40 (19.2)	37 (92.5)	3 (7.5)					
50 - 90	107 (51.4)	88 (82.2)	19 (17.8)	80.05 (±58.83)	70.00 (50)	3.264	3	0.353
100 - 140	29 (13.9)	26 (89.7)	3 (10.3)					
≥ 150	32 (15.4)	26 (81.3)	6 (18.8)					

n - Observed count; (%) - Percentage; X² - Chi square test; df - degree of freedom; P - P value (level of significance <0.05); SD - Standard deviation; IQR - Interquartile range

There was no significant association in the distance to the health facility in regards to cervical cancer screening. ($\chi^2 = 2.022$; df = 3; P = 0.568).

5. DISCUSSION

5.1 Uptake of Cervical Cancer Screening

This study found out that there was an overall low uptake of cervical cancer screening with only 15.2% of the respondents having been screened for cervical cancer. Similar studies had been done that showed low uptake of cervical cancer screening among women. In Eldoret Kenya, Were *et al.*, (2011) found out that only 12.3% had been screened for cervical cancer (Were *et al.*, 2011). Lyimo *et al.*, (2012) also has similar findings in the study that was done in Moshi rural district in Tanzania with only 22.6% of the respondents reported to have undergone cervical cancer screening (Lyimo and Beran, 2012)

Age of the women had a significant effect on utilization of screening services in this study which was a similar case in other studies where younger and better educated women were willing to undergo screening (Jia *et al.*, 2013). This is because respondents who were aged 24yrs and above were more likely to uptake cervical cancer screening. This could be because women who are 15yrs and below have a lower risk of developing cervical cancer and the risks however increases between the ages of late teens and mid-30s. Those women aged above 30 yrs.' also remain at higher risk and need to continue going for cervical cancer screening.

Level of education among women in Migori county did not influence how women uptake cervical screening. This is because these women have the same source of information regarding cervical cancer which is provided by the health workers attending to them every time they visit the hospital. The information given to them is not based on their education level. These findings however differ with Kihara's study that showed that level of education among women increased their likelihood of going for cervical cancer screening. (Kihara *et al.*, 2009). According to Kihara educated women embrace preventive health services by making informed decisions regarding their health.

Married women were also more likely to go for cervical cancer screening than those who were not married. Cultural practices like wife inheritance and polygamy puts most married women at a higher risk of getting cervical cancer since their male partners have multiple sexual partners. Being aware of this risk, the married women must embrace cervical cancer screening which helps in early detection

and eventually treatment of cervical cancer. Women in Migori also agreed that their male partners supported them when it comes to up taking cervical cancer screening services. This agrees with Rodvall's study that showed that women who had partners were more likely to participate in health prevention activities because partners take care of each other ensuring that either receives the best medical care, (Rodvallet *al*, 2005).

Employed women in Migori County also were more likely to go for screening unlike the unemployed ones. This could be because they have some form of financial independence and were able to pay for the services without any issue. Employed women are able to take control of their own health and body and will go for screening in order to stay healthy. Empowering women financially is a key factor in preventing cervical cancer and promoting uptake of screening services. These findings concur with a study conducted at Kenyatta National Hospital in 2009 that stated women who were employed had a greater interest in procuring cervical cancer screening. (Kihara *et al*, 2009).

5.2 Cervical cancer awareness

Most women in Kenya currently have some information about cervical cancer. This study found out that majority of the respondents (84%) had heard about cervical cancer, 15.2% had been screened while 3.8% had positive history of cervical cancer in their families. These findings are similar with Kibicho *et al* (2014) in Embu Kenya that showed that 77% of the participants were aware of cervical cancer (Kibicho *et al*, 2014). The awareness level among these women in this study can be attributed to the fact that every time they visit the hospital, the doctors and the nurses talk to them about cervical cancer. HIV positive women are also educated on the importance of cervical cancer screening. Despite having this high awareness level among these women, the general uptake is still low. This could be due to lack of more information on cervical cancer screening as (94.2%) of the respondents agreed. Lack of knowledge on where to go for screening accounted for 64.1% of the response that was received. This could be attributed to the fact that cervical cancer screening is offered under patient support department where only those patients who are HIV positive are attended. This leaves out a group of women who are not HIV positive hence are not eligible for these services. Other factors that could be the reasons for low uptake are bad attitude from health workers. A total of 58.2% of women believe that bad attitude towards patients in health a facility is the reason why most women do not get screened while 41.8% of the respondents had a contrary opinion. The perception that health workers in public hospitals do not handle their patients with the respect needed should not be generalized. While there are few cases of poor services in public hospitals, some public hospitals are really doing a good job in handling their patients. Lack of time to go for screening is another reason that can be attributed to the low uptake of cervical cancer screening. About 59.9% of the women believed that they have limited time to go for screening as most of them could be spending their time running few errands in order to put food on the table. The fear of being embarrassed was also seen as a factor that has contributed to the low uptake of cervical cancer screening in Migori County where about 22.7% of the women agreed to this. These findings however differ with Ogeto *et al.*, (2012) findings that showed that 54.5 % of the respondents had heard about cervical cancer but only 5% had been screened (Ogeto, 2012). The low uptake was attributed to the fear of the screening method (30%), distance to health facility (20%), while the fear of being tested for HIV and lack of support from male spouses comprised of 10% of the responses.

Whereas the National guidelines for prevention and management of cervical cancer, breast and prostate cancer manual (2012) has outlined the risks that are known to be associated with cervical

cancer, most of the respondents did not know of these risks. Only 22.5% of the women associated STI with cervical cancer. Other 25.5% associated cigarette smoking with cervical cancer while only 6.9% agreed that HIV and AIDS was actually a risk for developing cervical cancer. These findings however differed with Bukirwa et al., (2015) findings that all the in that study women knew that they were at high risk of acquiring cervical cancer (Bukirwa *et al.*, 2015). They knew that HIV/AIDS and being sexually active were risk factors to cervical cancer.

Having a general knowledge on risks associated with cervical cancer, benefits of screening, various screening methods available, when to start cervical cancer screening and how often women should go for cervical cancer screening can really increase uptake of these services among women. This is because the finding from this study gives a shallow general overview of cervical cancer. Most of these women do not a clear understanding of all these factors.

5.3 Availability, accessibility and the cost of cervical cancer screening services

This study showed that most of the study respondents (42.4%) lived near the hospital and would spend an average of 70 Ksh for transport while the majority (57.6%) did not live near the hospital and were likely to spend more money on transport if they were to come to the hospital. The distance or proximity to the hospital did not really influence the uptake of screening services among these women. Maybe embracing preventive healthcare practices has not been well understood by these women. This study also found out that 76.6% of the respondents were aware that cervical cancer screening was free. This alone was a good reason to make these women go for screening but from the study findings, we see this is not the case. This is because the 'free' aspect of the screening is only limited to HIV positive women whose services are funded by an NGO that is based in Migori county referral hospital.

6. Conclusion

This study concluded that awareness about cervical cancer was high among the women in Migori County; however, the knowledge of cervical cancer screening, risks associated with cervical cancer, benefits of cervical cancer screening remains low despite literacy rates among the women. Barriers to cervical cancer screening in Migori county referral hospital are; lack of information about cervical cancer screening procedures, not knowing where to go for cervical cancer screening, lack of time to go for screening, bad attitude among health workers and thinking that cervical cancer screening is an uncomfortable procedure were found out to be the reasons why people don't do cervical cancer screening. Free screening was limited to HIV positive women only and this leaves out the lot of women of reproductive age that not living with HIV. Marital status, age, education level and occupation were also highlighted as some of the factors that would make women be screened for cervical cancer. Those who were married, employed, and above 24 yrs. were more likely to go for screening than those who did not fall within this category.

7. Recommendations

- I. The need to be more awareness about cervical cancer screening, benefits of being screened, and risk factors associated with cervical cancer. Creating awareness and educating eligible women should be done through the schools, media, women groups, churches and even chiefs' barazas in Migori County. The process should target both men and women in the communities so that everybody becomes part of the whole initiative.

- II. A more intensive and large-scale study need to be done to covering the whole of Migori County to allow for generalizability of results. This can be through in-depth interviews to understand what real issues are making women in Migori County not to embrace cervical cancer screening.

REFERENCES

- [1] Abiodun, O. A., Olu-Abiodun, O. O., Sotunsa, J. O., & Oluwole, F. A. (2014). Impact of health education intervention on knowledge and perception of cervical cancer and cervical screening uptake among adult women in rural communities in Nigeria. *BMC Public Health*, 14(1), 814. doi:10.1186/1471-2458-14-814
- [2] Anorlu, R.I. (2008). Cervical Cancer: The Sub-Saharan African Perspective. *Reproductive Health*.16, 41-49. [http://dx.doi.org/10.1016/S0968-8080\(08\)32415-X](http://dx.doi.org/10.1016/S0968-8080(08)32415-X)
- [3] Bartlett, J. E., Kotrlik, J. W., & Higgins, C. C. (2001). Organisational Research: Determining Appropriate Sample Size in Survey Research. *Information Technology, Learning, and Performance Journal*, 19, 43-50.
- [4] Bukirwa, A., Mutyoba, J. N., N.Mukasa, B., Karamagi, Y., Odiit, M., Kawuma, E., & Wanyenze, R. K. (2015). Motivations and barriers to cervical cancer screening among HIV infected women in HIV care: a qualitative study. *BMC Women's Health*, 15(1), 82. doi:10.1186/s12905-015-0243-9
- [5] Gatune, J. W., & Nyamongo, I. K. (2005). An ethnographic study of cervical cancer among women in rural Kenya: is there a folk causal model? *Int J Gynecol Cancer*, 15(6), 1049-1059. doi:10.1111/j.1525-1438.2005.00261.x
- [6] Jia, Y., Li, S., Yang, R., Zhou, H., Xiang, Q., Hu, T., . . . Feng, L. (2013). Knowledge about cervical cancer and barriers of screening program among women in Wufeng County, a high-incidence region of cervical cancer in China. *PLoS One*, 8(7), e67005. doi:10.1371/journal.pone.0067005
- [7] Kibicho, J. W. (2014). *Factors Influencing Utilization of cervical cancer Screening services in Embuhospital, Embu County Kenya*. University of Nairobi, Retrieved from <http://hdl.handle.net/11295/74569> and <http://erepository.uonbi.ac.ke/handle/11295/74569>
- [8] Kihara ,M (2009) Knowledge and practice of cervical cancer screening using pap smear test amongst women in Nairobi. A case study of women attending MCH at Kayole sub-district Hospital. <http://erepository.uonbi.ac.ke:8080/handle/123456789/5158>.
- [9] Lyimo, F. S., & Beran, T. N. (2012). Demographic, knowledge, attitudinal, and accessibility factors associated with uptake of cervical cancer screening among women in a rural district of Tanzania: three public policy implications. *BMC Public Health*, 12, 22. doi:10.1186/1471-2458-12-22

- [10] Ogeto, A. M. (2012). *Factors influencing the utilization of cervical cancer screening services in Gesima Division, Nyamira County, Kenya*. University of Nairobi, Retrieved from <http://hdl.handle.net/11295/92926> and <http://erepository.uonbi.ac.ke/handle/11295/92926>
- [11] Onyango, O. (2016). Medics in Migori County raise alarm over cervical cancer. *The Reject*. Retrieved from <http://reject.awcfs.org/article/medics-in-migori-county-raise-alarm-over-cervical-cancer/>
- [12] Rodvall y., Kemetli l., Tishelman c., & Tornberg S. (2005). Factors related to participation in a cervical cancer screening program in Sweden, *Europe journal cancer preview 14*, 459-466.
- [13] Rugendo, M. M. (2016). Factors Associated with the Uptake of Cervical Cancer Screening Among Women of Reproductive Age in Homabay County, Kenya: A Case of Kanyadhiang Sub Location. *Clinics in Mother and Child Health*, 13(1), 232-4. GLOBOCAN) 2012
- [14] Sherris, J., Wittet, S., Kleine, A., Sellors, J., Luciani, S., Sankaranarayanan, R., & Barone, M. A. (2009). Evidence-based, alternative cervical cancer screening approaches in low-resource settings. *IntPerspect Sex Reprod Health*, 35(3), 147-154. doi:10.1363/ifpp.35.147.09
- [15] Were, E., Nyaberi, Z., & Buziba, N. (2011). Perceptions of risk and barriers to cervical cancer screening at Moi Teaching and Referral Hospital (MTRH), Eldoret, Kenya. *Afr Health Sci*, 11(1), 58-64.
- [16] WHO. (2002). *Cervical cancer screening in developing countries*. Retrieved from Geneva, Switzerland: http://www.who.int/cancer/media/en/cancer_cervical_37321.pdf and <http://www.who.int/iris/handle/10665/42544>