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**DETERMINANTS OF CERVICAL CANCER SCREENING PRACTICE  
AMONG WOMEN OF REPRODUCTIVE AGE IN NYARIBARI CHACHE  
SUB-COUNTY**

<sup>1</sup>Godner Bwari Peter, <sup>1</sup>Rose Olayo (PhD), <sup>1</sup>George Ayodo (PhD)

<sup>1</sup>School of Health Science, Jaramogi Oginga Odinga University of Science and Technology, Kenya

**ABSTRACT**

Cervical cancer is the second most common cancer after breast cancer among women worldwide and about 80% of the cases occur in the developing countries. However, the screening is too low in this countries and the determinants of the uptake of screening are poorly understood. Therefore, this cross-sectional study survey research design was used to identify the determinants of cervical cancer screening among 287 women of reproductive age (287) in Nyaribari-Chache Sub County. Data was collected using interviewer administered open and crossed ended questionnaires. Women from the three wards were proportionately sampled and the data obtained was analysed using both descriptive and inferential statistics. The study revealed that social demographic factor, in particular lack of spouse support influence the uptake of the screening ( $P < 0.04$ ). Both no screening and future plan for screening were associated with knowledge and P values were 0.012 and 0.001 respectively. However, none of the attitude factors was associated with the uptake of screening in the study ( $P \text{ value} > 0.05$ ). The study concluded that there is need to promote women's knowledge level on cervical cancer and its screening to increase uptake. The spouse support in particular men should be encouraged to participate in reproductive health. The study recommended the ministry of health and sanitation to strengthen and promote education programs to increase the uptake and policy should consider men as part of reproductive health program.

**Keywords:** Cervical cancer, Cervical cancer screening, Nyaribari-Chache Sub County

**BACKGROUND OF THE STUDY**

Cervical cancer kills about 350,000 women annually across the globe (1) thus being the primary cancer cause among women. Over 1.2 million females are diagnosed with cervical cancer on annual basis globally (2). There is a varying rate within the international with a range of between

3.9 individuals against 100,000 in Mozambique and 101.1 in the United States (American cancer society, 2014). 16.6 – 29.9 cases per 100,000 persons (2). Worldwide East Africa is the region that is most affected with cervical cancer with an age standardized incidence rate and mortality rate of 25.3 and 34.5 per 100,000 women respectively.(3) In Kenya, cervical cancer is the most frequent cancer and the leading cause of cancer related death among women. Cervical cancer has an annual crude incidence rate of 16.5 per 100,000 women and a corresponding age standardised incidence rate of 28.7 per 100,000 women (3). Kenya's Ministry of Health says that over 4,800 women are diagnosed with cervical cancer annually in Kenya and half die from the disease.

In Western Kenya, it is reported that, in addition to financial support, community health workers have noted that many women may not seek cervical cancer screening services or make follow-up visits because their husbands provide little emotional support or are actively opposed (4). The study reported that some partners do not support their wives in seeking screening because it involved travelling for long distances and it may sometimes require them to travel at night (5). Unfortunately complete cervical cancer examination cannot be performed by the women at home, and it requires that they travel to a health centre for the examination. This has led to the development of options for cancer control and treatment to a point that there are interventions for control that could be adopted for virtually every resource and demographic situation (6).

In a study conducted in western Kenya, none of the women had heard of an HPV vaccination (7), an indication of the low level of awareness of the cervical cancer vaccination in the region. Currently, no provisions have been made by the government of Kenya for a public immunization and awareness program of the HPV vaccination in the country. The limited data in Kenya and the low cervical cancer screening rate may be an indication that most women are unaware of the importance of cervical cancer screening and early detection. In addition, analysis of data from studies conducted in Latin America and the Caribbean suggests that women do not distinguish among types of cancer affecting women's reproductive organs and hence they do not really understand that cervical cancer is a preventable cancer (8). Due to these limited findings on uptake of cervical cancer in Kenya, the study was carried out to find in depth the awareness and attitude of cervical cancer causes, symptoms, and screening and the factors that may affect the decision to participate in cervical cancer screening amongst women in Kenya. According to the key informants in charge of cervical cancer, only 1.07% were ever been screened (MOH 2015) among women attending MCH clinic at Keumbu Sub-county Hospital. WHO (2007) proposes that health promotion should provide curricula to empower women with competency in taking reproductive health actions including cervical screening. The Ministry of Health (MCH) Kenya recommends the establishment of friendly services in existing facilities to promote women's reproductive health (9). Many factors however, are bound to affect cervical screening among women of reproductive age. It is therefore necessary to determine the knowledge, attitude and

social demographic characteristics and understand how they influence the uptake of cervical cancer screening exercise among Nyaribari Chache Sub-County women. The study aimed at providing information that could be useful to policy makers in improving cervical cancer screening programs in Nyaribari Chache Sub-County. It also aimed at bridging the practice gap for cervical cancer screening among Nyaribari-Chache women.

## **METHODS**

### **Study setting and design**

A cross sectional descriptive design was employed for this study .The study was preferred to gather diverse information about women’s knowledge, attitudes and practice on cervical cancer screening uptake using interviewer administered structured and semi-structured questionnaires, and a key informant interview. In the study, determinants of cervical cancer screening uptake among women was sought. This data was processed to provide descriptive information.

### **Ethics Statement**

Ethical approval for this study was obtained from the Ethical Review Board of University of East Africa Baraton (REC.UEAB/18/02/2016).

### **Data Collection**

Primary data was collected using structured and open-ended questionnaires.

### **Data management and statistic**

The data collected was analyzed using the Statistical Package for Social Sciences (SPSS) version 22. Frequency charts, proportions and tables were used in data presentation. Chi square was used to determine the association between the cervical screening uptake and social demographic characteristics, women’s knowledge and attitude.

### **Socio-demographic Characteristics of the Respondents**

**Table 4.1: Social Demographic Characteristics**

The social-demographic aspects of the respondents examined in this study included age, marital status, education level, economic occupation. Majority (43.2%) of respondents were aged between 20-29 years. The results show that the majority (61.7%) of the respondents had attained primary education level. The results also indicated that most of the respondents were married (80.1%), self-employed (87.8%) and a parity of 1-3(60.9%) as shown on table one below.

characteristic		Frequency	Percentage rate (%)
Age of respondents	15-19	90	31.4
	20-29	124	43.2
	30-39	59	20.6
	40-49	14	4.7
Education level	Primary level	177	61.7
	Secondary level	74	25.8
	College	26	9.1
	None	10	3.5
Marital status	Single	40	13.9
	Married	230	80.1
	Separated	4	1.4
	Divorced	3	1.05
Occupation	Widowed	10	3.4
	Self employed	219	76.3
	Unemployed	17	5.9
Parity	Student	21	7.3
	Formal employed	30	14.6
Spouse support			
	1-3	175	60.9
	4-5	74	25.8
Yes	6 and above	38	13.2
	Yes	44	15.3
No	No	243	84.7
	Total	287	100

**Table 4.2: Association between Social Demographic and Screening**

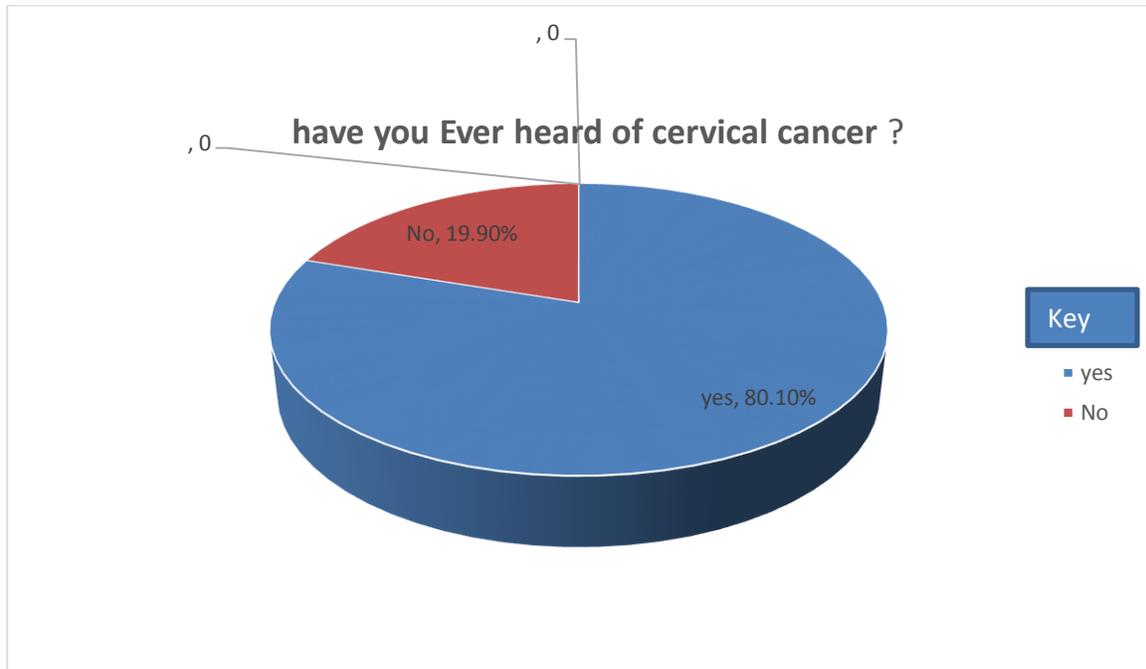
Results in the study indicated that there was association between spouse support and screening. Those who were supported by their spouses were the majority in practicing cervical cancer screening.

Variable	Cervical cancer screening		Chi-square test	p-value
	YES	NO		
Spouse support				
Yes	21	26	10.063	0.04
No	11	229		
Onset of sexual experience				
Below 15 years	13	114	0.960	0.811
16-18	11			
19-21	94			
	8	47		
Parity				
None	1	13	1.811	0.404
One-three	20	152		
Four-five	8	70		
Above six	3	20		
Education level				
Primary level	18		2.311	0.317
Secondary level	165			
Tertiary level	9	70		
	5			

None	18			
	0	2		
Marital status				
Married	24	127	1.055	0.590
Single	6	81		
Widowed	2			
	47			
Marital status				
Married	24	127	1.055	0.590
Single	6	81		
Widowed	2			
	47			

### **3.1 Knowledge of Cervical Cancer**

#### **4.3.1 Awareness of Cervical Cancer**



**Figure 4.1 Awareness of cervical cancer among the respondents**

The majority of respondents were aware of cervical cancer (80.1%), whereas 19.9% had never heard about it.

#### **4.3.2 Source of information**

Majority of the respondents (50.9%) got the information through mass media and the negligible number of respondents never heard about it.

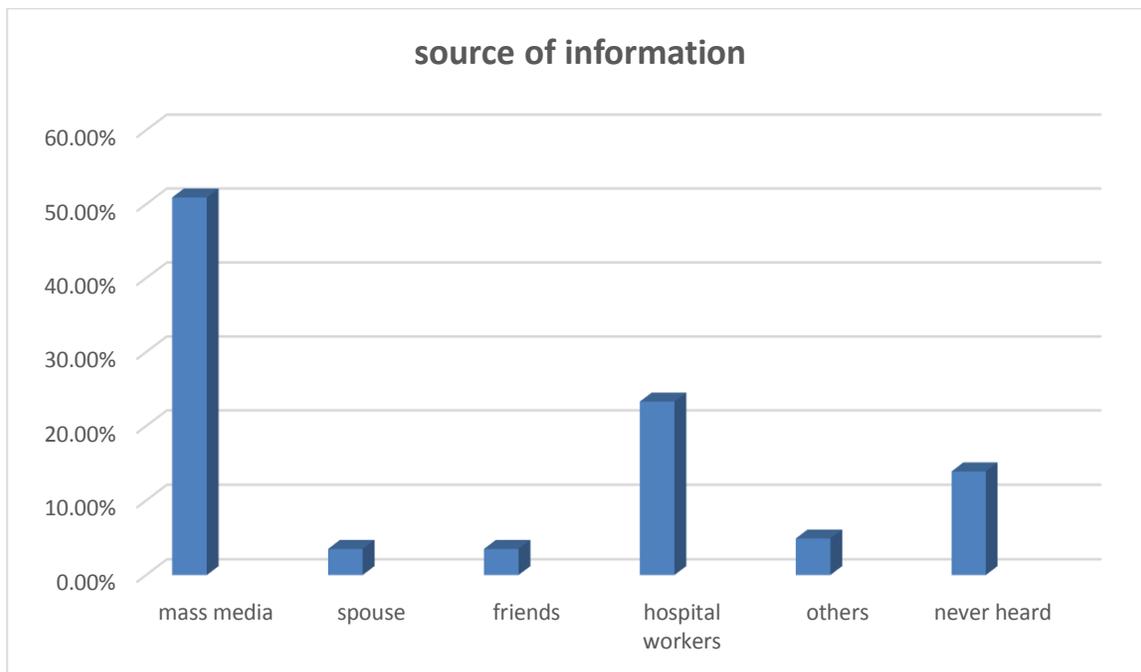


Figure 4.2 Distribution of respondents as per the source of information

4.4 The level of knowledge of women about cervical cancer screening (N=287)

The study revealed that, despite the fact that most women had good knowledge about cervical cancer as indicated by (31.4%) they never went for screening. Also poor knowledge about cervical cancer had a positive impact for their screening (42.9%). Satisfactory knowledge concerning the cervical cancer screening among women also had a relative impact for their move to be screened as indicated by the responses (47.6%)

Table 4.3 : Knowledge level of respondents

Knowledge level	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Good knowledge	17(20%)	25(27.6%)	9(8.6%)	122(31.4%)	114(13)
Satisfactory knowledge	86(23.7%)	14(8.4%)	14(8.4%)	150(47.6%)	23(11.9%)
Poor knowledge	7(4.8%)	16(15.2%)	12(11.4%)	135(42.9%)	117(25.7%)

The chi-square test of association in table 4.4 indicates that the level of knowledge of cervical cancer was strongly associated with cervical cancer screening  $\chi^2$  6.338. Those women who accepted the cervical cancer screening had good knowledge about the issue as perceived by the p-value  $p < 0.05$ .

**Table 4.4: Association between Knowledge and Practice of Cervical Cancer Screening**

variable	Cervical cancer screening		Chi-square	P-value
	Yes	No		
knowledge about cervical cancer screening			6.338	0.012
Yes	31			
No	56			
	1			
	199			
Plan for future screening			82.996	0.0001
Yes	28			
No	229			
	4	26		
Source of information			1.318	0.517
Friends	3			
Mass media	30			
hospital	14			
	132			
	15			
	93			

**4.5 The Attitude of Women towards Cervical Cancer Screening (N=287)**

The study indicated that the majority (46.5%) of respondents said that they think all women were at risk of developing cervical cancer. The larger number (70.0%) also revealed that they didn't know if they were at risk of developing cervical cancer.

**Table 4.5: Women's attitude**

Variable	Number	Percentage
Who is at risk of cervical cancer?		
Women with many partners	27	9.3
All women	133	46.5
Elderly women	14	4.9
Married women	63	21.6
Women with many children	14	4.9
single	17	13.9
Do you think you are at risk of developing cervical cancer?		
Yes	56	19.5
No	30	10,5
I don't know	201	70.0

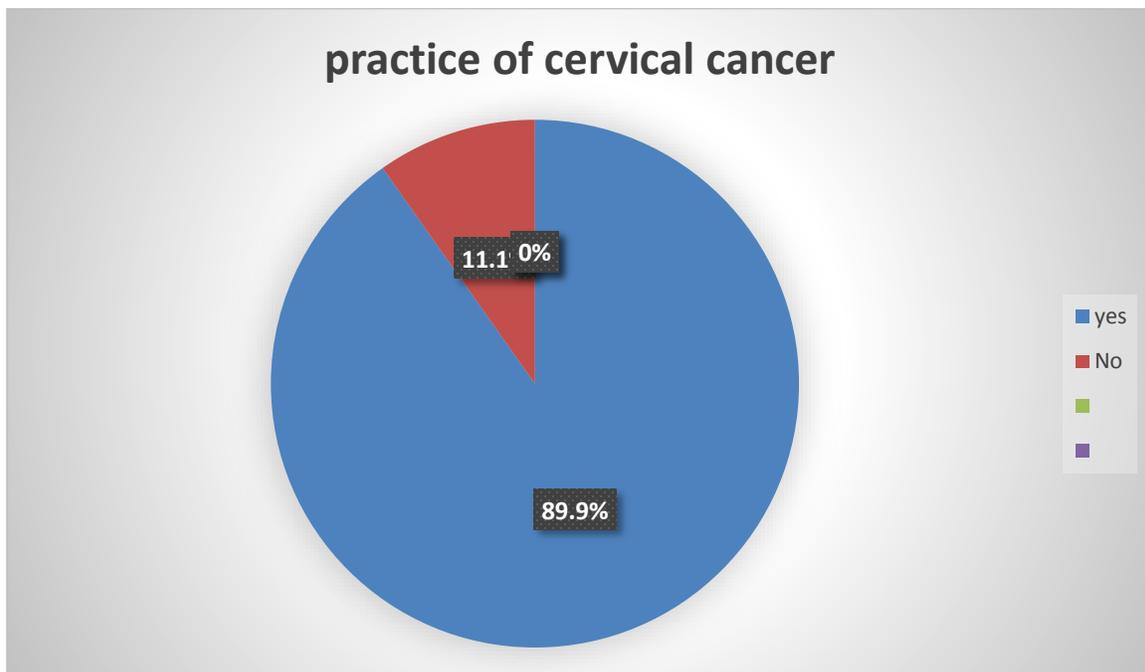
Results indicated that there was no association between attitude and practice of cervical cancer screening as seen by p-value>0.05. The majority of women who got spouse support seem to have gone for cervical cancer screening as compared to those who were not supported.

**Table 4.6: Association between Attitude and Practice of Cervical Cancer Screening**

Variable	Cervical Cancer Screening	Chi-square	P-value
	Yes No		
Do you think it is important for all women to be screened? Yes No	29 247 3	3.001	0.083
Do you think you are at risk of cervical cancer? Yes No	30 223 2 31	0.314	0.854

**4.6 The Practice of Women towards Cervical Cancer Screening (N=287)**

Information in the figure 4 below shows that most women had never been screened for cervical cancer (90%).



**Figure 4.3 Distribution of respondents as per the practice of cervical cancer**

## **CONCLUSION**

The study found lack of spouse support as one of the key determinants to cervical cancer screening since men were decision makers of the family. Other studies like the one in Kenya revealed lack of spouse support. Spouse support is one of the barriers to accessing cervical cancer screening services as per the health belief model. For women to adopt cervical cancer screening, their spouses must believe the benefits of cervical cancer screening outweighs the consequences of presenting to the facility when the disease is in its advanced stages. Hence enabling spouse support as a barrier to overcome and women can adopt cervical cancer screening practice. The study therefore concludes that if spouse support was to be encouraged the cervical cancer screening practice will increase. The measure of association revealed that there was association between screening and spouse support. The majority of women who were supported by their spouses participated in screening uptake as compared to those who were not supported. The study therefore rejects the null hypothesis.

The study findings revealed that majority of respondents were aware of cervical cancer and screening but they did not have sufficient knowledge of the disease. This is an indication that women had high level of general knowledge about the disease but did not have knowledge on the disease itself since most of the respondents did not know if they were at risk of developing cervical cancer. Despite the high levels of cervical cancer screening awareness, the screening

uptake was too low. From health belief model, knowledge can move women to change their behaviour. If knowledge is improved, women would understand that they are at risk hence participate in cervical cancer screening. Due to insufficient knowledge about the disease, majority of women could not go for screening. The level of respondent's knowledge about cervical cancer and screening has a significant positive association with cervical cancer screening uptake. Those who went for screening had sufficient knowledge and they could see the severity of the disease and this motivated them to go for screening as compared to those who did not have sufficient knowledge. The study therefore rejects the null hypothesis.

Women's attitudes was positive but they did not go for screening. This indicates that there was a disparity between attitude and practice of cervical cancer screening. Attitude is one of the modifiable variables that can influence women's perception. The study therefore concluded that most women had positive attitude but they could not go for screening. Cultural attitudes such as cervical cancer being due to witchcraft and the necessity of cervical screening are significant and negatively correlate with cervical screening uptake. Variables such as fear, anticipated pain and discomfort, stigma and concern for embarrassment were found to contribute to cervical cancer screening uptake among the respondents. The measure of association showed no association between attitude and cervical cancer screening. Therefore accepts the null hypothesis.

## REFERENCES

1. American cancer society (2015) Breast cancer Facts and Figures. (Online), Available: <http://www.cancer.org>. [2012, August 20].
2. World Health Organization (WHO)/Institute Catala d'Oncologia (ICO). (2015). Human papillomavirus and related cancers: Summary report update. Geneva, Switzerland: Author.
3. World health organization (WHO). 2010: Comprehensive cervical cancer control: A Guide to essential practice.
4. Clays, Gonzalez, H. Page, R.E. Bello and M. Temmerman (2002) Determinants of cervical cancer screening in a poor area. Results of a population –based survey in Rivas, Nicaragua. Tropical medicine and international health vol. 7 no 11 pp. 935-941
5. Chirenje, Z.M., S., Kirumbi, L., Kaggwa, S. Makuta-Tlebere, P., Mpanju-Shumbusho, Rusakaniso, S., Ngwalle, E.W., W. & Makoae, L. (2001): Situational analysis for cervical cancer diagnosis and treatment in East, central and southern African countries.pp127-132. Asian pacific journal of cancer prevention vol.11 2010-1027

6. Bener A., Denic S., Alwosh R: Screening for cervical cancer among Arab women (2001) international journal of gynecology& obstetrics 74:305-307.
7. Agurto, Bingham, A., Bishop, A, Bradley Coffey, P, Dzuba, Janet, Dzuba, I., & Winkler j (2003). Factors affecting utilization of cervical cancer prevention services in low-resource settings. Salud P' ublica de Mexico, 45(Suppl. 3), S408–S416.
8. Kenya ministry of public health and sanitation and ministry of medical services. National guidelines for prevention and management of cervical, breast, and prostate cancer. Kenya ministry of public health and sanitation and ministry of medical services (2009).draft National cancer control strategy 2010-2015. Nairobi.