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Evaluation of the Factors Affecting Cervical Cancer Screening in Women of Reproductive Age at Kitagata Hospital in Western Uganda's Sheema District

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ABSTRACT

The study aimed to assess the factors influencing cervical cancer screening among women of reproductive age in Kitagata hospital in Sheema District. Out of 150 participants, 84.7% had heard of cervical cancer, while 15.3% had not. Of those who knew about cervical cancer, 62.7% were aware of available cancer management and prevention services, while 37.3 were not. Only 26.1% had undergone a screening test and 37% had been vaccinated against HPV. Most respondents believed that cervical cancer was preventable through risk factor avoidance and vaccination, while 22.4% believed it was not. The majority of women were aware of some cervical cancer screening centers in Uganda, with 71 knowing they were free of charge at Kitagata Hospital. The study found knowledge gaps that discourage women from getting screened for cervical cancer, and the study found that prevention was viewed favorably.

Keywords: risk factors, cervical cancer screening, women, reproductive age

INTRODUCTION

Globally, cervical cancer is one of the leading causes of cancer deaths among women and its impact is mostly felt in developing countries like Uganda where its prevalence is higher and utilization of cancer screening services is low [1, 2, 3]. Cancer of the cervix is the fourth most common cancer among women worldwide and the leading cause of gynecologic cancer death in low- to middle-income countries [4, 5].

In 2012, there were an estimated 527,624 new cases and 265,672 deaths due to cervical cancer, where 85% of these deaths occurred in sub-Saharan Africa [4]. Globally, by 2012, cervical cancer was responsible for 265 700 deaths and 527 600 diagnoses, 85% of which occurred in developing countries. In East Africa, it is the leading cause of cancer deaths and has the highest age-standardized incidence rates of 42.7 per 100 000 women per year. Estimates for Uganda show that cervical cancer led to 2300 deaths and 4000 new cases in 2012 [6, 7]. The WHO estimates that in 2014 approximately 3915 Ugandan women were diagnosed with cervical cancer and that 2160 died from the disease (HPV Information Centre, 2016). A 33.6% prevalence of human papillomavirus (HPV) among women in Uganda combined with low screening uptake has resulted in the country having one of the highest cervical cancer incidence rates in the world of 47.5 per 100,000 per year (ICO Information Centre on HPV and Cancer, 2016).

Interestingly, majority of these deaths are preventable through human papilloma virus vaccination for young girls and screening for precancerous lesions for women at risk [6, 8]; studies suggest that increasing baseline screening coverage in a lifetime leads to comparable or better cancer risk reductions than a multiple screening in a single lifetime with lower baseline coverage in Uganda. Unfortunately, the baseline lifetime screening rate for cervical cancer in Uganda is reported to be between 4.8% and 30% [9] and according to the Uganda Cancer Institute (UCI), 80% of the women who present with cervical cancer have advanced stage disease. In order to prevent deaths due to cervical cancer in Uganda, a multidisciplinary approach must be taken, which involves the effective identification and treatment of cervical precancerous lesions and early

disease [9].

Therefore, it has been suggested that increasing access to those previously un-screened women should be of priority. The Ministry of Health in Uganda has been fairly successful in implementing a palliative care program and has also played a significant role in developing a contemporary strategic plan for cervical cancer prevention and control in Uganda. A national HPV vaccination program for prevention of cervical cancer was initiated and is currently ongoing. However, efforts by the Ministry of Health have been uncoordinated and with limited success. The UCI is the only center for comprehensive cancer care in Uganda [10].

METHODOLOGY

Study design and rationale

A quantitative cross section study approach was conducted in order to determine the factors influencing cervical cancer screening services among women of reproductive age visiting Kitagata General Hospital in Sheema District.

Study Site

The study was conducted in the gynecology OPD of Kitagata General Hospital in Sheema District, Western Uganda.

Study population

The study was conducted among women aged 20-45 years attending gynecology OPD of Kitagata General Hospital.

Inclusion criteria and rationale

It included all women attending gynecology OPD aged 20-45 years at Kitagata General Hospital that were available at the time of collecting data and willing to participate in the study.

Exclusion criteria

Women who declined to participate in the study.

Sample size determination and rationale

The sample size was determined using the Kish Leslie's formula (1965).

$$n = \frac{(Za/2)^2 p(1-p)}{e^2}$$

Where n is the required sample size, p is the approximate prevalence rate for utilization of cervical cancer screening services at the study site taken to be 50% due to the unavailability of reference literature during the study period, and e is the permissible error taken as 0.08 at 92% confidence level in the estimate. Substituting in the formula gave a sample size of 150 respondents.

Sampling procedure

Simple random sampling technique was used to select participants until the calculated sample size was reached because of the limited time of data collection

Data collection method and tool.

Interviewer-administered questionnaires. The researcher used a structured questionnaire and all participants were be asked similar questions and from options, they picked the best alternative. Apen and paper were used to record the necessary information.

Data analysis

Data was entered into the Microsoft Excel program for analysis**.** Descriptive tests were done to determine the percentages, frequencies (proportions) of the different variables such as demographic data, awareness, perception, accessibility and utilization of cervical cancer screening services.

Ethical considerations.

Approval

Ethical approval was obtained from the School of Medicine and Surgery, KIU-WC and a letter ofintroduction was obtained from the faculty Dean to be presented to Kitagata General Hospital administration. Permission to carry out the research was also be sought from the administration at Kitagata General Hospital to gain access to the study site.

Consent

Participants were be given information regarding the research to seek consent. Each participant'schoice to participate or not was respected and data collected from participants was be kept confidential [11].

RESULTS

Table 1: Respondents demographic data

Variable	Frequency	Percentage
Age group		
18-22	47	31.3
23-27	37	24.7
28-32	32	21.0
33-37	20	13.0
38+	15	10.0
Religion		
Christians	121	80.4
Moslems	20	13.3
Other	9	6.3
Education level		
Primary	55	36.4
Secondary	39	26.3
Tertiary	26	17.2
None	30	20.2
Marital status		
Single	37	24.7
Married	85	56.7
Divorced/Separated	17	11.0
Widowed	11	7.3

As seen from table 1 above, majority of the respondents 47(31.3%) were aged 18 to 22 years, followed by 37(24.7%) who were aged between 23 to 27 years, 32 (21%) were aged between 28 to 32 years. Only 20 (13%) were aged between 33 - 37 years while 15(10%) were above 37years. The majority (80.4%) of the respondents were Christians, 13.3% were Moslems and only 6.3% belonged to other religions.

Those that said that they were married were 85 (56.7%), 37(24.7%) were single, 17(11%) were divorced or separated while only 11(7.3%) were widowed. Regarding their education level, 55(36.4%) had attained Primary level, 39(26.3%) Secondary level while 26 (17.2%) had attained Tertiary level. Thirty (20.2%) of the participants had never received any formal education.

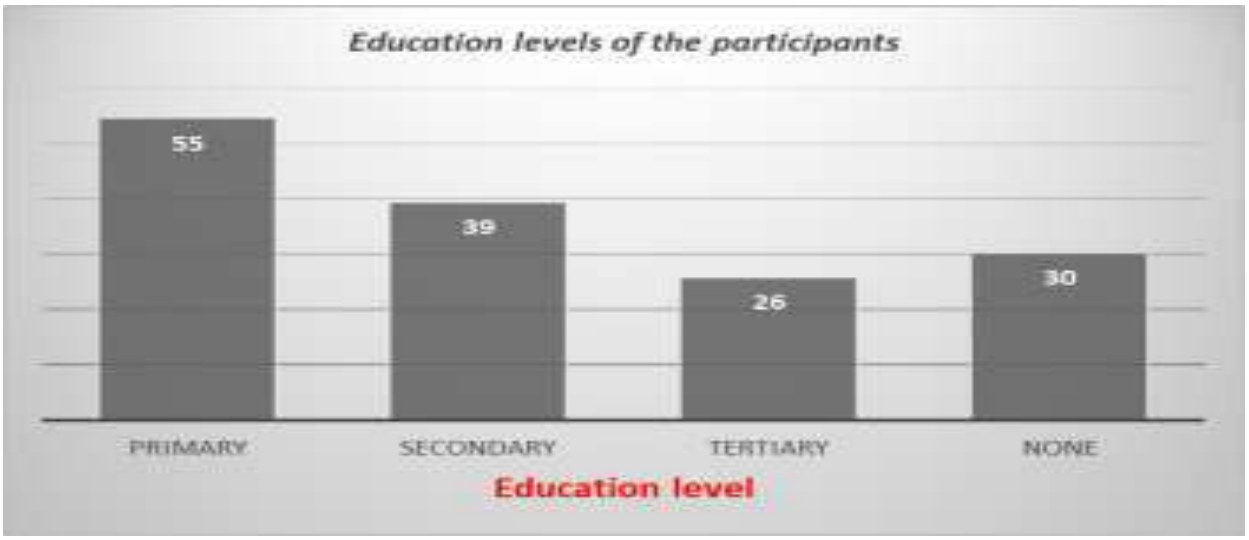

Figure 1: Of all the respondents, 55(36.4%) had attained Primary level, 39(26.3%) Secondary level while 26 (17.2%) had attained Tertiary level. Thirty (20.2%) ofthe participants had never received any formal education.

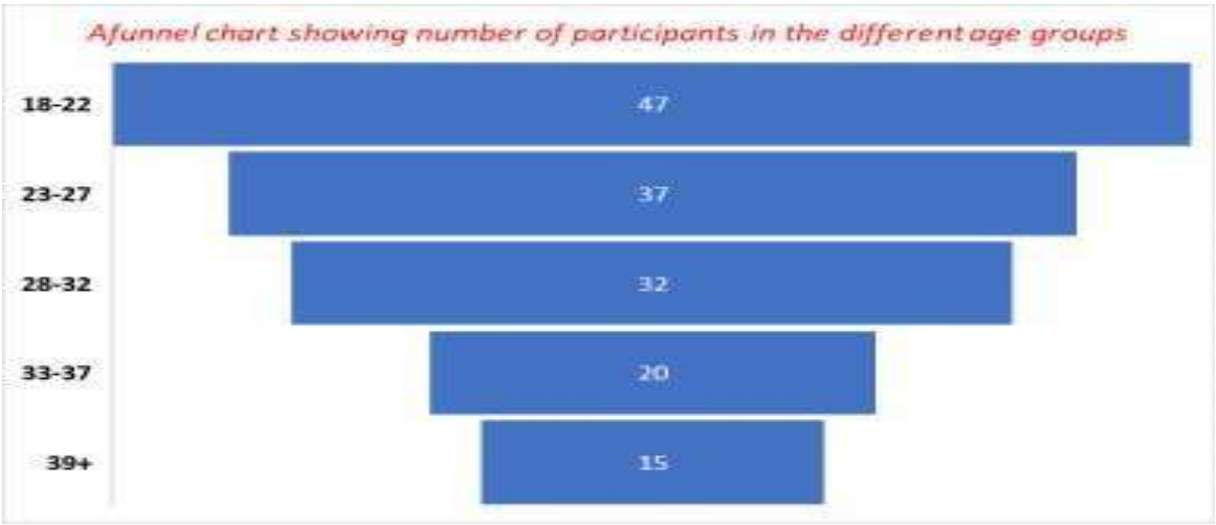

Figure 2: Majority of the respondents 47(31.3) were aged 18 to 22 years, 37(24.7%) were aged between 23 to 27 years, 32 (21%) were aged between 28 to 32 years. Only 20 (13%) were aged between 33 - 37 years while 15(10%) were above.

Figure 3: 85 (56.7% were married, 37(24.7%) were single, 17(11%) were divorced or separated while only 11(7.3%)were widowed

Table 2: Respondents' cervical cancer screening status and awareness of services

Variable	Responses	Frequency	%age
Ever heard of cervical cancer	Yes	127	84.7
	No	23	15.3
Awareness on available cervical cancer management and prevention services	Aware	80	62.7
	Unaware	47	37.3
Ever undergone cervical cancer screening Test	Yes	39	26.1
	No	111	73.9
Ever been vaccinated against HPV	Yes	55	37
	No	72	48
	Don't know	23	15

Table 3: Knowledge and Awareness about Cervical Cancer and Screening services

Question	Frequency	% age
What do you understand by cervical cancer?		
Cancer of vagina	0	0
Cancer of the uterus	0	0
Cancer of the cervix	100	79.1
I don't know	27	20.9
How do you think one can acquire cervical cancer?		
Abortion	19	15.2
Bacteria	42	32.9
Smoking	0	0
HPV	38	29.6
Having multiple sexual partners	47	37.3
Malaria	0	0
I don't know	19	15
At what age do you think women are most likely to get cancer of the cervix?		
16-24 ears	41	32.1
25-35 years	30	23.8
35-44 years	42	33.2
I don't know	14	10.9
Is cervical cancer preventable?		
Yes	79	62.5
No	28	22.4
I don't know	19	15.1
If yes, how is cervical cancer prevented?		
Having protected sex	47	36.8
Vaccination against HPV	36	28.0
Cervical cancer screening	51	39.9
Abstinence from sex	47	37.1
I don't know	30	23.3
Are there any cervical cancer screening centers you are aware of in Uganda?		
Yes	72	56.7

No	55	43.3
Are you aware that cervical cancer screening services are free of charge at this hospital? (N=72)		
Yes	71	98.8
No	1	1.2
Sources of knowledge on cervical cancer		
Health workers	60	47.6
Friends	34	27.1
Mass media	84	66.4
Other	22	17.3

Majority 127(84.7%) of the respondents had ever heard of cervical cancer, and 23(15.3%) had not. Of those who had heard about it, 47.6% got the information about it from health workers, 27.1% from friends, majority (66.4%) from mass media while 17.3 heard about it from other sources. According to the current study, 80(62.7%) of the respondents were aware about the available cancer management and prevention services while 37.3 were not. Out of the 127 participants that had heard about cervical cancer, only 39(26.1%) had ever undergone the cervical cancer screening test and only 37% had been vaccinated against HPV.

When asked how one can acquire cervical cancer, 19(15.2%) of the respondents thought abortion was one of the causes; 42(32.9%) held bacterial infections responsible, while 38(29.6%)of them said HPV causes cervical cancer. 47(37.3%) attributed it to multiple sexual partners and 19(15%) did not know the cause.

Furthermore, 41(32.1%), 30(23.8%) and 42(33.2%) of the 127 respondents thought that women aged 16-24 years, 25-35 years and 35-44 years respectively are most likely to get cancer of the cervix; 14(10.9%) did not know which age group was more susceptible. Most- 79(62.5%) -of the 298 respondents who knew about cervical cancer said that it was preventable through avoidance of the various risk factors and vaccination while 28(22.4%) said Cervical cancer was not preventable and 19(15.1%) respondents did not know. 47(36.8%), 36(28.0%), 51(39.9%), and 47(37.1%) further stated preventive measures as having protected sex, vaccination against HPV, Cervical cancer screening and abstinence from sex; 30(23.3%) did not know any preventive measures. Finally, 72(56.7%) of the women were aware of some cervical cancer screening centers you in Uganda and of these, 71 knew that cervical cancer screening services were free of charge at Kitagata Hospital.

DISCUSSION

The majority of respondents, 47 (31.3%), were between the ages of 18 and 22. These were followed by 37 (24.7%), who were between the ages of 23 and 27, and 32 (21%) who were between the ages of 28 and 32. Only 20 people (13%) between the ages of 33 and 37, and 15 people (10%) over the age of 37. Christians made up the majority of respondents (80.4%), followed by Muslims (13.3%) and other religions (6.3%). 85 people (56.7%) reported being married, 37 (24.7%) were single, 17 (11%) were divorced or separated, and just 11 (7.3%) were widowed. Regarding their education level, 26 (17.2%) had completed their tertiary education while 39 (26.3%) had completed their secondary education. Of the participants, thirty (20.2%) had never attended school.

The majority of responders, 127 (84.7%), had heard of cervical cancer, while only 23 (15.3%) had not. Of those who had heard about it, 47.6% had heard about it from health professionals, 27.1% had heard

about it from friends, the majority (66.4%) had heard about it through the media, and 17.3% had heard about it from other sources. Radios, health professionals, and networks of close friends and family members were the main information sources for most women in this study. It has been demonstrated that mass-media campaigns using radio, television, posters, and billboards are more effective in addressing particular issues [6]. Additionally, they have demonstrated usefulness in enhancing knowledge, enhancing condom self-efficacy, changing social norms, enhancing interpersonal communication, and promoting health services [12]. Therefore, enhancing women's awareness of cervical cancer through these mediums is crucial. Since most young people, according to this study's findings, utilize television and radio, efforts to spread information about cervical cancer should be stepped up in these media. In addition, given how frequently teenagers and young people use the internet, the government should encourage its development partners (Non-Governmental Organizations, Community Based Organizations, etc.) to provide current information about cervical cancer on their websites. Encouraging these groups to use social media could help them get young people to their websites for crucial information on cervical cancer and other reproductive health issues [13]. Additionally, prior research from Uganda has demonstrated that men have a major impact on women's decision to undergo screening [1] and that significant others, such as paternal aunts, are essential providers of information on reproductive health [14]. Health professionals have also been demonstrated to be a significant source of such knowledge [15].

In the current study, 80 (62.7%) of the respondents knew about the cancer care and prevention services that were accessible, while 37.3 did not. Only 39 (26.1%) of the 127 participants who had heard about cervical cancer had ever performed the screening test, and only 37% had received the HPV vaccine. Although very few women had access to screening, a previous study indicated that understanding of cervical cancer and its risk factors was fair [6]. Knowledge may not always translate into action, according to previous research [16, 14, 17], as intermediary elements like attitudes may be crucial in determining behavior. In actuality, the main hurdles to cervical cancer screening that respondents in the current study identified were perception-related, including the lack of symptoms or signs of the disease, the belief that one is not at risk, a lack of time, and fear of test results. Other sources have commented on similar difficulties with cervical cancer screening [18, 19, 17]. Education programs should concentrate on changing these preconceptions, raising awareness of risk factors, and enticing women to get screened even when they show no symptoms of the disease.

When asked how one can get cervical cancer, 19 (15.2%) of the respondents believed abortion tobe one of the causes; 42 (32.9%) pointed the finger at bacterial infections; and 38 (29.6%) indicated HPV is to blame. Multiple sexual partners were blamed by 47 people (37.3%), whereas 19 people (15%) were unsure of the cause. Additionally, 79 (62.5%) of the 298 respondents who knew about cervical cancer felt it could be prevented by avoiding the various risk factors and receiving vaccinations, while 28 (22.4%) disagreed and 19 (15.1%) of the respondents were unsure. As additional preventive measures, 47 (36.8%), 36 (28.0%), 51 (39.9%), and 47 (37.1%) listed protected sex, HPV vaccine, cervical cancer screening, and abstinence from sex; 30 (23.3%) did not know any preventive measures. According to this survey, the majority of women were aware of the signs, symptoms, and risk factors for cervical cancer. This agrees with findings from a related study carried out in northern Uganda [18]. Due to their high level of awareness, women may be able to identify cervical cancer based on its symptoms and seek medical care. Additionally, women are more likely to take action to prevent the acquisition of the human papilloma virus and thereby avoid acquiring the disease when they are aware of the causes and risk factors of cervical cancer and perceive themselves to

be at risk. Likewise, prior research has demonstrated that knowledge of cervical cancer symptoms and prevention strategies, as well as perceptions of disease risk, were related to intentions to undergo screening and, consequently, to the early diagnosis of the disease [20, 21]. However, research among supposed knowledgeable health professionals in Uganda and Nigeria discovered poor screening rates [22-23]. Cervical cancer awareness efforts should emphasize raising awareness of the disease's indications, symptoms, and risk perception to promote screening and aid in its early diagnosis.

Furthermore, 71 of the 72 women who knew about cervical cancer screening facilities in Uganda also recognized that Kitagata Hospital offered free screenings. People who knew of a location where cervical cancer screening was available were more likely to have undergone the procedure. Being a cross sectional survey, it is difficult to say whether the respondents used screening because they knew where the service was provided or learned about these locations after having their own backgrounds checked. Women who had not undergone screening also cited a major obstacle as not knowing about the service. According to this study, women who received reproductive health care from government facilities had a higher chance of receiving a cervical cancer screening than women who went to alternative institutions. This might be because, in contrast to commercial institutions, government health facilities that provide cervical cancer screening are free to use. This demonstrates that more women would access screening if cervical cancer screening programs were ramped up and the identified barriers were addressed.

CONCLUSION

According to this study, general knowledge of cervical cancer prevention is rather high, but particular understanding of screening is quite low. Women made up a very small percentage of those who had access to screening. The study also uncovered knowledge gaps that can discourage women from getting screened for cervical cancer. Additionally, prevention of cervical cancer was viewed favorably. Radios, health professionals, and networks of closefriends and family members were the main information sources for most women in this study.

REFERENCES

1. Twinomujuni, C., Nuwaha, F., & Babirye, J. N. (2015). Understanding the low level of Cervical cancer screening in Masaka Uganda using the ASE model: A community-based survey. *PLoS ONE*. https://doi.org/10.1371/journal.pone.0128498
2. Eilu, E., Akinola, S., Adekunle, O. M., Adebayo, I., Abiola, K., & Charles, D. (2021). Prevalence of high-risk HPV types in women with cervical cancer in Eastern Uganda Journal of Biomedical and Clinical Sciences, Volume 6, Issue 1, Pages 45-56
3. Eilu, E., Akinola, S. A., Tibyangye, J., Adeyemo, R. O., Odoki, M., Adamu, A. A., & Kato, C. D. (2021). Assessment of alternative approaches of primary cervical cancer screening among women in low-income environments. *Journal of Cancer Research and Experimental Oncology*, *13*(1), 1-9.
4. Ferlay, J., Steliarova-Foucher, E., Lortet-Tieulent, J., Rosso, S., Coebergh, J. W., Comber, H., Forman, D., & Bray, F. (2013). Cancer incidence and mortality patterns in Europe: estimates for 40 countries in 2012. *European journal of cancer (Oxford, England: 1990)*, *49*(6), 1374–1403. https://doi.org/10.1016/j.ejca.2012.12.027
5. Usman, I. M., Chama, S. N., Aigbogun, E. O., Kabanyoro, A., Kasozi, K. I., Usman, C. O., & Ssebuufu, R. (2022). Knowledge, Attitude, and Practice Toward Cervical Cancer Screening Among Female University Students in Ishaka Western Uganda. Research Square, pp 1-12. DOI: https://doi.org/10.21203/rs.3.rs-1751672/v1

6. Ndejjo, R., Mukama, T., Kiguli, J., & Musoke, D. (2017). *Knowledge, facilitators and barriers to cervical cancer screening among women in Uganda: a qualitative study*. 1–8. https://doi.org/10.1136/bmjopen-2017-016282
7. Adebayo, I. A. (2021). Prevalence of high-risk HPV types in women with cervical cancer in Eastern Uganda. *Journal of Biomedical and Clinical Sciences (JBCS)*, *6*(1), 45-56.
8. Obeagu, G. U., & Obeagu, E. I. (2023). An update on premalignant cervical lesions and cervical cancer screening services among HIV positive women. Journal of Public Health and Nutrition 6(2) 141.
9. Nicole, G., Campos, M. D., Laia, B., Kanan, T., Desai, J. C., Gage, S. N., Adebamowo, S. S., Jane, J. K., & Mark, S. (2021). A proposed new generation of evidence-based microsimulation models to inform global control of cervical cancer, Preventive Medicine, Volume 144, 106438, ISSN 0091-7435,
10. https://doi.org/10.1016/j.ypmed.2021.106438.
11. Nakisige, C., Schwartz, M., & Ndira, A. O. (2017). Cervical cancer screening and treatment in Uganda. *Gynecologic oncology reports*, *20*, 37–40. https://doi.org/10.1016/j.gore.2017.01.009
12. Ugwu, C. N., Eze, V. H. U., Ugwu, J. N., Ogenyi, F. C., & Ugwu, O. P. C. (2023). Ethical Publication Issues in the Collection and Analysis of Research Data. Newport International Journal of Scientific and Experimental Sciences (NIJSES) 3(2): 132-140. https://nijournals.org/wp-content/uploads/2023/07/NIJSES-32-132-140-2023.pdf
13. Sampselle, C. M., Ph, D., & Johnson, T. R. B. (2011). *Knowledge, Attitudes, and Demographic Factors Influencing*. *20*(6). https://doi.org/10.1089/jwh.2010.2062
14. Njuguna, E., Ilovi, S., Muiruri, P., Mutai, K., Kinuthia, J., & Njoroge, P. (2017). *Factors influencing cervical cancer screening in a Kenyan Health Facility: a mixed qualitative and quantitative study*. *6*(4), 1180–1185.
15. Kumakech, E., Andersson, S., Wabinga, H., & Berggren, V. (2015). Integration of HIV and cervical cancer screening perceptions and preferences of communities in Uganda. *BMCWomen's Health*. https://doi.org/10.1186/s12905-015-0183-4
16. Mukama, T., Ndejjo, R., Musabyimana, A., Halage, A. A., & Musoke, D. (2017). Women's knowledge and attitudes towards cervical cancer prevention: A cross sectional study in Eastern Uganda. *BMC Women's Health*. https://doi.org/10.1186/s12905-017-0365-3
17. Lambert, C. L. C. (2013). Factors Influencing Cervical Cancer Screening in Women Infected With HIV: A Review of the Literature. *Journal of the Association of Nurses in AIDS Care*, *24*(3), 189–197. https://doi.org/10.1016/j.jana.2012.06.010
18. Obol, J. H., Lin, S., Obwolo, M. J., Harrison, R., & Richmond, R. (2021). Knowledge, attitudes, and practice of cervical cancer prevention among health workers in rural health centres of Northern Uganda. *BMC Cancer*. https://doi.org/10.1186/s12885-021-07847-z
19. Mwaka, A. D., Okello, E. S., Kiguli, J., & Rutebemberwa, E. (2014). *Understanding cervical cancer: an exploration of lay perceptions, beliefs and knowledge about cervical cancer among the Acholi in northern Uganda*. 1–9.
20. Hoque, E & M Hoque (2009) Knowledge of and attitude towards cervical cancer among female university students in South Africa, Southern African Journal of Epidemiology and Infection, 24:1, 21-24, DOI: 10.1080/10158782.2009.11441335
21. Black, E., Hyslop, F., & Richmond, R. (2019). Barriers and facilitators to uptake of cervical cancer screening among women in Uganda: A systematic review. *BMC Women's Health*.

https://doi.org/10.1186/s12905-019-0809-z

22. Mitchell, S. M., Pedersen, H. N., Stime, E. E., Sekikubo, M., Moses, E., Mwesigwa, D., Biryabarema, C., Christilaw, J., Byamugisha, J. K., Money, D. M., & Ogilvie, G. S. (2017). Self-collection-based HPV testing for cervical cancer screening among women living with HIV in Uganda: a descriptive analysis of knowledge, intentions to screen and factors associated with HPV positivity. *BMC Women's Health*, 1–10. https://doi.org/10.1186/s12905-016-0360-0
23. Nnodu, O., Erinosho, L., Jamda, M., Olaniyi, O., Adelaiye, R., Lawson, L., Odedina, F., Shuaibu, F., Odumuh, T., Imam, H., Owolabi, O., Yaqub, N., & Zamani, A. (2017). *Knowledge and Attitudes towards Cervical Cancer and Human Papillomavirus: A NigerianPilot Study*. *14*(1), 95–108.

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