

## Exploring Reasons for Cervical Cancer Screening Uptake by Female Clinicians at AIC Kijabe Hospital

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### ABSTRACT

Cervical cancer is the leading cause of cancer-related mortality among women of reproductive age in Kenya. Local data suggests that the uptake of cervical cancer screening is low among the general population. Clinicians play a vital role in the fight against cervical cancer. However regional data demonstrates a low uptake of cervical cancer screening among clinicians. This study aimed at exploring reasons for personal screening uptake and recommendations to increase screening uptake among female clinicians at AIC Kijabe Hospital. This was a qualitative study using 22 in-depth interviews with female clinicians. Data analysis was done using thematic analysis. Personal cervical cancer screening uptake was mostly facilitated by the perception of risk, the desire to model positive health behavior and the convenience of awareness campaigns. Aversion to the screening process was a major barrier to screening among this population. Some of the female clinicians' suggestions to improve clinicians' screening uptake were details on how to improve the screening process. Significant barriers deter cervical cancer screening among this population. Increasing knowledge and improving the screening process might improve screening uptake among female clinicians at AIC Kijabe Hospital.

**Key Words:** Cervical cancer, female clinicians, Kijabe Hospital, screening uptake.

## I. INTRODUCTION

Worldwide, cervical cancer comes fourth in terms of incidence. In Kenya, it is the leading cause of cancer-related mortality among women of reproductive age. Cervical cancer is one of the preventable cancers. Cervical cancer is caused by Human Papilloma Virus, (HPV) the normal course of the disease is a slow progression to cancer, over five to ten years. In the early stages of the HPV infection, the cervical lesions are not cancerous yet and can be treated (World Health Organization [WHO], 2020). Screening and treatment of precancerous lesions have been demonstrated to be an effective way to control incidence and mortality (WHO, 2016). Local data suggest that the uptake of cervical cancer screening is low among the general population. Clinicians play a vital role in the fight against cervical cancer (National Cancer Control Strategy [NCCS] 2017). Despite their presumed knowledge and training to become health professionals, female clinicians' uptake of cervical cancer screening is also low, according to available African studies (Urasa, & Darj, 2011; Ugwu et al., 2013; Mutyaba et al., 2006). There is a need to understand why a well-informed population is still reticent to screen themselves.

Therefore, with the continual increasing incidence and mortality from cervical cancer in Kenya, stakeholders need to strengthen and coordinate efforts to fight cervical cancer. The high mortality of 70% from cervical cancer is mostly due to late diagnosis, which in turn is due to a lack of regular screening (Dunyo et al., 2018). Clinicians who are in direct contact with patients have a crucial responsibility to educate their patients about risk factors and cervical cancer screening guidelines. Unfortunately, literature has shown that uptake of screening services is generally low, even among healthcare workers (Andsoy & Gul, 2014; Mutyaba et al., 2006). In addition to this, studies support that clinician's personal health behavior affects their counseling practices for their patients. They found that patients, whose physicians were compliant with their own health prevention interventions, were more likely to undergo the same interventions (Frank, Dresner, Shani & Vinker, 2013). Understanding the reasons associated with screening amongst clinicians is the first step to expose community barriers to screening, which is imperative to make a positive impact on community screening practices (Thipeveeranna et al., 2013). The absence of qualitative studies exploring personal reasons informing screening uptake amongst female clinicians in Kenya creates an obvious knowledge gap as to how to increase uptake among the same group. Henceforth, this study seeks to explore female clinicians' reasons to uptake cervical cancer screening for themselves, and describe their views on how to improve uptake of regular cervical cancer screening among female clinicians at AIC Kijabe Hospital.

## II. II METHODOLOGY

This was a qualitative, phenomenological study. This approach allows a deeper understanding of experiences and how individuals make sense of their experiences (Cridland, Jones, Caputi & Magee, 2014). The study site was AICKH, a 360-bed referral hospital in Kiambu County, Kenya. Data was collected through in-depth interviews using voice recording among female clinicians (FC) working at Kijabe Hospital between July and October 2021. AICKH employs around 300 female clinicians. Moreover, Kijabe Hospital is a training institution for nurses, medical officer and clinical officer interns, residents in Family Medicine, General Surgery and Orthopedic surgery.

The study population was all female clinicians between the ages of 21-65 years, according to the ACOG guidelines of the commencement of screening that is used at AICKH. Ando et al. (2014) recommend that a sample of six interviews may be enough to enable development of meaningful themes and that data saturation usually occurs within the first 12 interviews. The initial target for in-depth interviews was between 15-30, however interviews data saturation was achieved within 22 interviews. Purposive sampling was used to recruit participants. Female clinicians aged between 21-65 working at AIC Kijabe Hospital at the time of the study were included in the study. The only exclusion criteria used was potential participants who are already on management for cervical cancer. The total number for sample size was 22 female clinicians. The study was approved by the Kabarak University Ethics Committee, the Kijabe Hospital Institute of Research Board and the National Commission of Science and Technology Institute (NACOSTI). Written consent was obtained from each participant before data collection. Data analysis was done using thematic analysis as described by Braun & Clarke (2006).

### III. RESULTS

All respondents were female clinicians working at AICKH in July 2021. They were from Outpatient and Inpatient departments, Mother and Child Health Clinic and Gynecology department. All cadres of female clinicians were represented. Nurses came in the biggest proportion because of their actual numbers in this facility.

**Table 1:**

*Demographic Data*

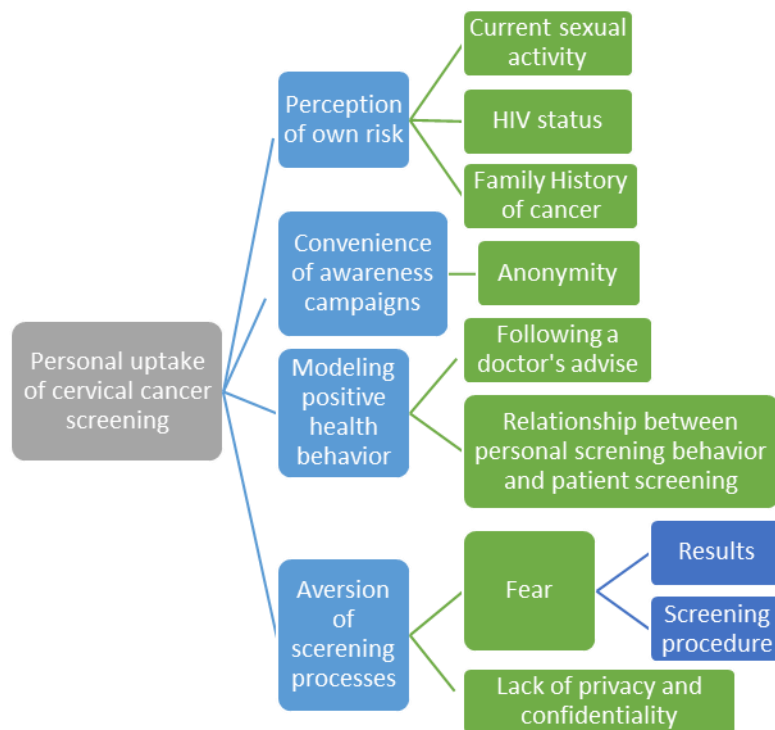
Departments	Number of participants
Outpatient	7
Inpatient	7
Mother and Child Health	4
Gynecology department	4
Position	Number of participants
Consultants	3
Residents	3
Medical officer	1
Clinical officer	4
Nurses	10
Medical officer intern	1
Clinical officer intern	1

OPD: Outpatient department, IPD: Inpatient department, MCH: Mother and Child Health

A. *Reasons and barriers to personal uptake of cervical cancer screening among female clinicians*

The exploration of personal uptake of cervical cancer screening generated four major themes. The personal perception of risk, the convenience of cancer awareness campaigns, the desire to model positive health behavior and finally, the aversion of screening procedure were behind the decision to uptake or not screening services.

**Figure 1:** *Reasons and Barriers to Screening Among Female Clinicians*



*Perceived health risk*

Overall, 13 respondents had screened at least once in their lifetime, and only three were screened regularly. The understanding of the importance of screening was the leading reason for screening uptake, and even for regularity among female clinicians who screened.

*“Having the knowledge of cervical cancer and its impact on life, I don’t want to miss out on growing lesions, yet they will be preventable” (Female clinician [FC] 21)*

In contrast, the remaining female clinicians who had not screened expressed a low perceived health risk for cervical cancer. Without a family history of cancer, the personal perception of risk among FC who had not screened were quite limited. One participant expressed her reasons for not screening:

*“I felt that I do not meet the category: I am not sexually active and I am not HIV positive.” (Female Clinician 5)*

### *Convenience of campaigns*

Another important opportunity for screening uptake was during awareness campaigns. Awareness months with free screening in the places of work and universities were a good catch for a good number of the FC who had been screened at the time of this study.

Similarly, those who had not screened suggested that campaigns would make it more likely for them to get screened. One specific advantage is that they could feel anonymous during large campaigns, rather than getting screened at their place of work.

*“There was a screening campaign at my school in 2019...My screening experience was good...I was not embarrassed; I did not know the clinicians who screened me.”* (FC15)

On the other hand, one participant expressed concerns about awareness campaigns. The large numbers of patients who require screening services might discourage uptake because of the longer waiting time.

*“The problem with awareness months, sometimes because everyone is flocking there the numbers might be discouraging.”* (FC 7)

### *Modeling positive health behavior*

Female clinicians who had a positive view of screening for themselves expressed a desire to experience what screening feels like so that they can better inform patients. One participant mentioned:

*“I wanted to know how it feels, and also, I have seen patients go through a lot. I did not want to see patients, educate them when I am a candidate who doesn't want to know about herself as well”* (FC 11)

### *Aversion to the screening procedure*

The screening process was a major determinant of screening uptake or not. An aversion to the screening procedure, either from personal experience or theoretical, was one of the major hindrances to screening and the regularity of screening. One female clinician explained her experience:

*“A lot of discomforts...I think that is part of the reason why I have never screened again, I still have that experience in my head. There was no prescreening counseling, they would just do the screening and you go.”* (FC 13)

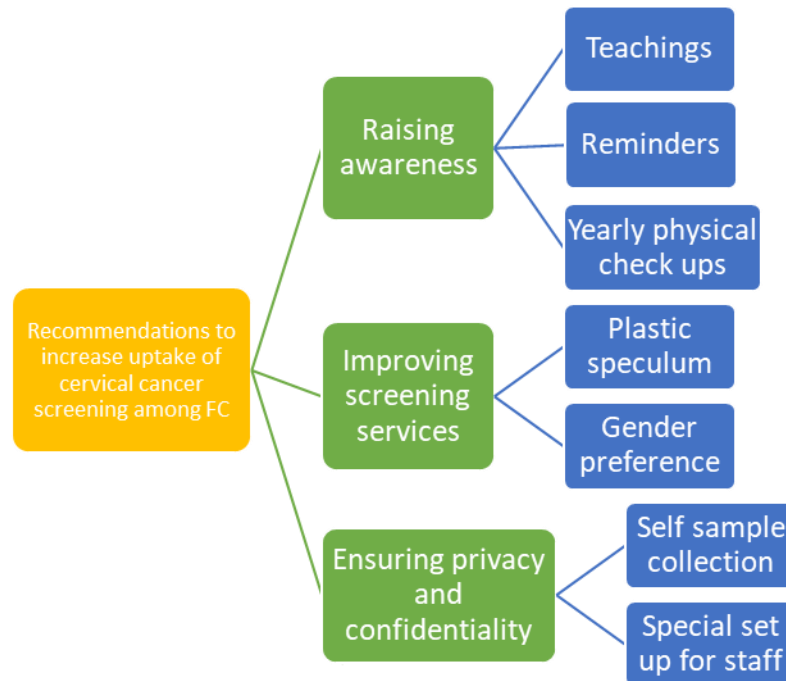
Those with more positive experiences (with minimal to no discomfort) expressed a high likelihood of being screened again. Aversion was also expressed in terms of fear of the results. Some clinicians did not want to screen because they did not want to find out that they have cancer. In addition to the fear of results, there was the fear of insufficient confidentiality and privacy. Another clinician confessed:

*“Some of us medics preach water and drink wine. I fear the unknown. I work here, if I was to be screened, I will probably be screened elsewhere. I know I am supposed to do it but for sure will not do it because of the fear of the unknown...The bigger part of the unknown is the results and the minor part is the procedure.”* (FC 17)

*B. Female clinicians’ suggestions to improve their uptake of cervical cancer screening*

Three themes emanated from the participants in this study to improve their uptake of cervical cancer screening. Raising awareness through teachings and reminders. Improving the screening services and ensuring privacy and confidentiality were also thought to result increased uptake.

**Figure 2:** Recommendations to Increase Screening Uptake Among Female Clinicians



Recommendations to increase regular personal uptake of cervical cancer screening among FC at AIC Kijabe Hospital included raising awareness, friendly screening processes, and ensuring privacy and confidentiality.

*Raising awareness*

Despite the expectation that clinicians know about cervical cancer, a good number of the respondents mentioned that they would be willing to take up the screening services if they had more knowledge about it. One participant expressed:

*“...If I know more than these two risk factors [HIV positive and sexually active] if there are other risk factors, I will get screened.” (FC5)*

The knowledge increase that they mentioned was in terms of CMEs, and frequent interactions with Gynecology. One example is that many respondents were unclear of the pricing of a pap smear at Kijabe Hospital so they are not well informed on the process. Their hope was that they would be reminded about screening guidelines (ages, risk factors, interval for screening) and the benefits of screening. One FC insisted:

*“Convince me I need it, why I should do it now. I am opened to screen but why now?” (FC 17)*

*“...Yearly physical check-ups for staff, then ladies would get their pap in the process and Gynecology team to come and sit down with all the female clinicians in Kijabe, teach them about cervical cancer” (FC6)*

Raising awareness can also remind FC of their need to be screened. They highlighted the need to have personal reminders through fellow clinicians advising them to screen when they are patients, and also the need for general reminders. Different types of reminders were suggested, posters during campaigns and awareness months, especially in the places where women frequently go. The reminders are needed, to balance the competing health needs that are found in the general outpatient clinic and cause both the clinician and patient to overlook the importance of regular cervical cancer screening.

*“Reminders through campaigns and medical practitioners” (FC11) suggested, and another added:*

*“Remind me. Also, campaigns, increase awareness especially take advantage of the cancer awareness month.” (FC4)*

#### *Improvement of screening services*

In addition to reminders, another big theme that emerged from the recommendations was friendly screening services. Five FC expressed the need for plastic speculums to make the screening experience less painful. Metallic speculums are usually described to be cold and inducing more pain compare to plastic and disposable speculums.

*“Make it comfortable, use plastic speculums, some people go once and never get a second screening, because of pain,” (FC 16)*

*The first one, was with a plastic speculum, not in Kijabe Hospital, in liked the experience. The second one was in Kijabe Hospital, with metallic speculum, the clinician did not use KY jelly because the clinician believed that it will alter the results, I hated that experience. It may sound silly but I am waiting to screen once I find a place that has plastic speculum. (FC18)*

Another aspect of making the screening process friendlier was gender preference. Two participants felt that they would prefer being screened by a female clinician. One who did not mind being screened by a male clinician in general felt differently if the screening were to be at AICKH.

*“If it has to be done by a colleague, then I would prefer a female colleague” (FC18)*

In addition to gender preference, one participant with a bad screening experience suggested pre-screening counseling and post screening counseling to make the process more bearable.

*“...please explain to me what you are going to do, what you are looking for, what is the plan if you find something wrong, don’t assume I know because I am a medic. Pretest counselling just like we do for HIV test” (FC13)*

#### *Ensuring privacy and confidentiality*

Finally, the last major theme among recommendations to improve uptake of screening among FC was ensuring privacy and confidentiality. One area that was highlighted by one participant was privacy in terms of infrastructure. Another suggestion to mitigate the lack of privacy and confidentiality was to introduce and train FC how to use self- testing kits.

*“We need a different set up for staff, that has enough privacy, have you realized the rooms in gyn clinic don’t even have a door? Anyone can come through the curtain...it felt so awkward to lie on that couch.” (FC19)*

#### IV. DISCUSSION

The uptake of cervical cancer screening among FC has been sporadic in the literature, as high as 80% in Saudi Arabia (Heena et al, 2019) to as low as 14.1% in Nigeria (Ugwu, 2013). The objective of this study was not to establish the prevalence of screening, however, only half of the respondents to this study had ever screened for cervical cancer. Amongst those who had screened, only three had regular screening according to guidelines and they were all consultants. My findings are also consistent with the results of a Kenyan national survey in the general population; a higher level of education was associated with a higher prevalence of cervical cancer screening (Tiruneh et al, 2018). However, the association of education level or work experience and uptake of cervical cancer screening amongst health care workers in our context remains unknown. In this study, the knowledge of risk factors was an important consideration in clinicians’ screening uptake. A good number of the non-screened FC expressed that not being currently sexually active or HIV positive were the reasons why they had not screened. Comparable to our findings, 6.4% of Nigerian nurses interviewed had not screened because they were not sexually active at the time of the interview and therefore concluded they were not at risk of cervical cancer (Arulogun & Maxwell, 2012). Contrastly, the MOH (2018) recommends screening for every woman who has ever had sexual intercourse, regardless of current sexual activity, because one encounter is enough for someone to contract HPV.

On the other hand, some FC mentioned that the desire to portray an example for their patients was the motivation to use cervical cancer screening for themselves. The majority of the participants in this study agreed with Frank et al. (2013) on the fact that their personal screening practices influence their counselling about cervical cancer screening towards their patients. A smaller minority did not agree with this concept. Although the relationship between personal screening practices and screening patients was not an objective of this study, this discrepancy is noteworthy. It argues for a more generalized and systematic approach in ensuring patients are having regular screening, regardless of clinicians’ personal practices. Another avenue of screening for FC has been the convenience of awareness campaigns, either at their schools or their places of work. Evidence from a systematic review done in Asia agrees that targeted campaigns are associated with an increase in cervical screening uptake compared to mass media campaigns (Shleimann et al., 2019).

On the other hand, the aversion to the screening process was one of the major barriers to personal screening uptake among FC. The negative feelings about the screening process were mostly related to speculum examination, described as being “painful,” “uncomfortable” and “cold.” Similar qualifications were used among nurses in Nigeria and Tanzania (Arulogun & Maxwell, 2012; Urasa & Darj, 2011). The fear of the vaginal examination was also a barrier to screening in an Indian survey among healthcare workers (Thippeveeranna et al., 2013). The anxiety of the screening process was also expressed as fear of the outcome of the screening test. The same fear of cancer diagnosis was also described in Tanzania among nurses who had never been screened for cervical cancer (Urasa & Darj, 2011). This study also sought FC’s views on ways to increase screening uptake for themselves. Similar to our findings, the intervention to improve screening uptake that was the most suggested among nurses in Tanzania was raising awareness and more education about cervical cancer (Urasa & Darj, 2011).



Another major aspect of raising awareness was reminders for clinicians to be screened. Interventions to increase uptake in terms of reminders, phone reminders, emails, and letters are effective. Reminders increased the uptake of cervical cancer screening by 44% in a systematic review of seventeen studies (Tamuzi et al., 2017). FC in this study requested short messages (SMS), phone calls, individual reminders by another health professional when sick, and posters in places frequently visited by FC.

Improving the screening services to make them more friendly was another suggestion to improve screening uptake. Improving the procedure from using metallic to plastic speculum was the main suggestion. A qualitative study in the UK affirmed the suggestion of non-metallic speculums (Freeman et al, 2018). Yet this recommendation from our study is notably absent from other studies in LMICs. Plastic speculums are thought to be less painful and not cold compared to metallic speculums. From an institution's perspective, it is possible that using a metallic speculum might be more cost-effective. However, because of the known discomfort associated with metallic speculums, patients could be offered different pricing.

Another suggestion for improving the screening process was to adopt HPV self-sampling tests. This was believed to help address the discomfort from speculum examination and concerns about privacy and confidentiality. HPV-DNA self-sampling by vaginal swab had higher acceptability and led to higher uptake of cervical cancer screening services (92.5%-99.2%) compared to other interventions (48.4% -56.5%) tailored to increase cervical screening uptake in Sub-Saharan Africa (Lott et al.,2020). The other reasoning made by study participants on the advantage of HPV-DNA (either clinician or self-sampled) was the extended interval after a negative HPV-DNA test. At the time of this study, the AICKH protocol offered VIA-VILI as a first-line test for women living with HIV and Pap Smear for the general population. The interval between two normal Pap smears is three years, and the interval is one year for women living with HIV. The WHO recommends an interval of five to ten years after a negative HPV-DNA test (WHO, 2021). Therefore, the explanation given to this recommendation was that a repeat HPV-DNA test is needed a minimum of five years after the first one. Thus, the assumption is that it would be easier to screen regularly when the interval between two screenings is longer.

## V. CONCLUSION

Cervical cancer screening uptake and regularity are still low in an influential population of female clinicians. The most common reason that pushed female clinicians to take up cervical cancer screening tests for themselves was the application of their often-limited knowledge of risk factors. Thus, targeted education and systematic approaches are needed to positively impact self-referral of FC for cervical cancer screening. The most common barrier to screening themselves was the aversion to the screening process and FC suggested modifiable barriers. Therefore, their recommendations to raise awareness, improve screening services (e.g., availing plastic speculums), and ensure privacy and confidentiality should be considered.

## VI. RECOMMENDATIONS

### *Policy recommendations*

- The MOH should have targeted efforts to increase uptake of cervical cancer screening among health care workers, because of their influential position. These strategies should be tailored to deal with stigma and fear that is experienced by FC. Some

examples include yearly trainings, targeting health care workers and more frequent awareness campaigns

- AIC Kijabe Hospital could consider purchasing plastic speculums.
- AIC Kijabe Hospital should plan annual cervical cancer campaigns with mass teaching and subsidized screening.

#### *Area of further research*

- It is important to do a similar study amongst all clinicians, including men. Assess factors that motivate them to encourage a patient to screen for cervical cancer.
- In our study, only consultants had screened more than once, it will be interesting to assess factors associated with uptake of cervical cancer screening at AICKH, especially assess if the level of education and work experience are associated with higher uptake of screening services.
- There is a need for further research to follow up and see if an increased screening uptake amongst clinicians correlates with increased uptake amongst patients.

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