

## Nurses Perceptions about Reasons for Women's Non-utilisation of Cervical Cancer Screening Services in Malawi

Melanie Yandakale Hami<sup>1</sup>, Valerie Janet Ehlers<sup>2\*</sup> and Dirk M. van der Wal<sup>2</sup>

<sup>1</sup>University of Malawi, Kamuzu College of Nursing, Blantyre, Malawi

<sup>2</sup>Department of Health Studies, University of South Africa, Pretoria, South Africa

### Abstract

Malawi offers free cervical cancer screening services in some government health institutions, but most cervical cancer cases are diagnosed during the late inoperable stages. This study attempted to identify, from nurse/midwives' perspectives, reasons why most Malawian women fail to use cervical cancer screening services. A cross-sectional, exploratory, descriptive design was used and semi-structured interviews were conducted to collect data from the nurses. Purposively selected 14 nurse/midwives were interviewed. Malawian women's non-utilisation of cervical cancer screening services was reportedly influenced by a shortage of nurse/midwives, inadequate health education, limited resources, unfavourable screening schedules, and geographic distances from these services. These identified factors need to be addressed to enable more women to use the available free cervical cancer screening services in Malawi, so that cervical cancer can get diagnosed during the early stages while effective treatment is available. Unless this happens, most cases of cervical cancer in Malawi will continue to be diagnosed during the terminal inoperable stages of cervical cancer.

**Keywords:** Cervical cancer; Cervical cancer screening services; Malawi's health care system; Non-utilisation of health services

### Introduction

The major cause of cervical cancer is the human papillomavirus (HPV) that spreads mostly through the genital contact. This virus affects approximately 50% of all sexually active men and women during their lives [1]. There are more than 100 types of HPV, types 16 and 18 cause cervical and anal cancers, but HPV can cause cancer of the oropharynx, vulva, vagina, and penis [2]. Research confirmed that HIV-infected women were less likely to clear HPV infection than HIV-uninfected women, implying that HIV-infected women are more likely to develop cervical cancer and to have multiple types of HPV than HIV-uninfected women [1]. This has serious implications for countries where HIV infection rates are high. Although HPV immunisations are available, they are too expensive (approximately USD390 per woman) for large scale use in most developing countries, and cannot cure existing HPV infections. "Recommendations are unclear as to whether HIV-infected people would benefit from HPV vaccination, particularly in women older than 26 years" [1:178]. Regular cervical cancer screening (CCS) can detect HPV infection, and effective treatment can prevent cervical cancer from developing. In cases where cervical cancer is diagnosed, treatment can still be effective if administered during the early stages.

Cervical cancer is the second most common female cancer worldwide [3], but the most common cancer among women in Sub-Saharan Africa (SSA). Regular effective cervical cancer screening (using the Papanicolaou test or the VIA test implying visual inspection of the cervix with acetic acid) can reduce the cervical cancer mortality figures through early detection, and timely treatment [4]. Women, older than 40 years of age, have the highest risk of developing cervical cancer, but have poor records of using cervical cancer screening services, mainly because they have limited contact with healthcare services [5].

Women in developing countries account for an estimated 80.0% of global cervical cancer deaths [6]. The highest incidence of 1,32,000 cervical cancer cases occurred in India, comprising more than 25% of the annual global number [6]. Estimated rates for eastern and southern Africa are 30 to 60 per 100 000, which are higher than those reported for the rest of SSA [7]. In Malawi, cervical cancer accounts for approximately 28.0% of female cancers, but 80.0% of cervical cancer

patients are only diagnosed during the late inoperable stages [8]. During 2011, interviews were conducted with 381 Malawian women. Almost none of these women knew that HPV was the major cause of cervical cancer. Only 24.7% (n=94) had used cervical cancer screening services, and 57.2% (n=218) intended doing so within the following 12 months. Lack of knowledge, and misconceptions, prevented these women from using free cervical cancer screening services in Malawi [9].

### Problem statement

According to Taulo cervical cancer statistics for 2000-2006 indicate that out of the 3221 Malawian women diagnosed with cervical cancer, 1991 (61.8%) were 42 years of age and older. Many of these women had never been screened prior to the diagnostic procedure. However, all these interviewed women had visited government health facilities, providing cervical cancer screening services, at least once during the preceding 5-10 years. As 80% of these cervical cancer diagnoses in Malawi were made during the late inoperable stages [9], the dire necessity for regular cervical cancer screening cannot be overemphasised in this country, where reportedly only 24.7% out of 381 interviewed women had used cervical cancer screening services during their lifetimes [9]. Malawi's government provides free cervical cancer screening services, which most women fail to use, probably due to a lack of knowledge and/or misconceptions about cervical cancer, and about cervical screening [10]. Nurses and midwives provide most primary level healthcare services, including cervical cancer screening, and the bulk of health education in Malawi. Nurses and midwives are expected to provide cervical cancer screening services and health education. However, most women in Malawi lacked knowledge about cervical cancer, and did

**\*Corresponding author:** Valerie Janet Ehlers, D Litt Phil, University of South Africa Department of Health Studies, P.O. Box 65075, Pretoria 0165, South Africa, Tel: 012 429 3111; E-mail: [ehlersjh@mweb.co.za](mailto:ehlersjh@mweb.co.za)

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not use these services, or did so only during the late inoperable stages of cervical cancer. It was unknown how the nurses perceived cervical cancer, and cervical cancer screening, in Malawi. Therefore the purpose of the study was to identify and describe the nurses' perspectives on cervical cancer, cervical cancer screening, and specifically why Malawian women aged 42 and older did not utilise these free services. This information could provide insight into factors influencing women's non-utilisation of cervical cancer screening services. By addressing the identified factors, and enabling more women to use these services regularly, many women's lives might be saved by early detection, and effective treatment of cervical cancer.

## Research Methodology and Design

### Design

A cross-sectional, exploratory, descriptive design was adopted, using qualitative interviews with semi-structured (open-ended) questions to collect information from nurses, about factors influencing women's non-utilisation of free cervical cancer screening services in Malawi.

### Setting and sample of the study

This study utilised government health institutions as settings. In Malawi, there were eight government health centres offering cervical cancer screening services in the three major cities of Malawi during the period of the study. Four of the health centres are located in the southern region. Three sites in the southern region, which actively provided cervical cancer screening during the period of the study, were conveniently selected for the study. A total of 14 nurses out of 35 working at the three participating government health centres, providing cervical cancer screening services in Blantyre, were purposively sampled. Those who met the inclusion criteria of being a nurse working at one of the three participating government health centres and willing to be interviewed, participated in the study. Semi-structured interviews were conducted with 14 participants.

### Data collection and analysis

The interview guide with two sections was used for data collection. Section 1 requested demographic information, and questions about the nurse/midwife's own cervical screening behaviour. Section B's open-ended questions addressed the nurse/midwives' perceptions as to why women did not use these free services in Malawi.

Data saturation was attained after twelve participants, but two additional interviews were conducted to ensure that no further new information was revealed. All the interviews were tape recorded. The interviewer asked the questions precisely as worded on the instrument. The process of data analysis started with the researchers' immersion in data, comprehending, synthesising, and clustering similar ideas into themes [11]. Atlas TI Scientific Software (version 4.2) was used for coding. Analysed themes were compiled to create a comprehensive set of themes and sub themes, reflecting all issues addressed during the 14 interviews.

## Research Results

The demographic information will be discussed first, to help contextualise the nurse-midwives' reported perceptions about reasons why Malawian women do not use free cervical cancer screening services.

### Demographic information

More than half (57.1%; n=8) of the 14 participants were 49 or older and married (64.3%; n=9). All the participants (100.0%; n=14) were qualified enrolled nurse/midwives. This implied that they were taught about cervical cancer and screening during their professional training. Ten (71.4%) participants had worked for five or more years at a health institution, providing cervical cancer screening services, but only 42.9% (n=6) had been trained as providers. Nurse/midwives are trained as cervical cancer screening providers by Malawi's Ministry of Health [12], and by March 2010, a total of 128 providers had been trained. Only eight (57.1%) out of the 14 interviewed nurse/midwives had used cervical cancer screening services themselves.

### Factors Influencing Women's Utilization of Cervical Cancer Screening Services in Malawi – According to the Nurse/Midwives' Perceptions

According to the interviewed nurse/midwives, women's utilisation of these services might be influenced by the shortage of trained providers, absence of motivation talks, inadequate material and structural resources, unfavourable schedules for screening, and women having to travel far to reach health facilities that render these services

#### Shortage of trained providers

Not all healthcare facilities in Malawi have trained providers. Even if the nurse/midwife is a trained provider, she might be unable to provide cervical cancer screening services due to a shortage of other staff members, implying that opportunities might be missed due to staff shortages. One participant explained:

*"... sometimes you would be the only nurse/midwife for the whole health centre on that day. As such women are sent back telling them that there is nothing much I can do for you today. And women are sent back without being screened."*

#### Lack of health education presentations

The nurse/midwives reported that trained providers should provide health education, informing women about cervical cancer, and screening, and motivating women to use these services. At health centre C, one provider said:

*"When I am around I just decide to give the same talk to the family planning/postnatal clients and outpatient department, but this rarely happens."*

However, at the same health centre (C) another participant affirmed that:

*"... These talks are supposed to be given by any of the nurse/midwives not only the providers. Those who were trained have reference books, which can be used by any nurse/midwife allocated to give a motivation talk on cervical cancer and screening."*

At health centre B, motivation talks were sometimes given by any nurse/midwife. Brief talks were given to groups of women attending prenatal, post natal or family planning clinics. These clinics are not usually frequented by women aged 42 and older, comprising the high risk group for cervical cancer. The frequency of health education talks about cervical cancer screening varied. At health centre C it was reported that:

*"... According to the programme the message is supposed to be given once a week but sometimes we find that may be in a month it has just been given once or twice."*

Category	Frequency	Percentage
Age		
<40 years	6	42.9
40 and above	8	57.1
Marital status		
Married	9	64.3
Widowed	4	28.6
Never married	1	7.1
Ever been screened for cervical cancer		
Screened before	8	57.1
Never been screened before	6	42.9

Table 1: Demographic data (n=14).

### Inadequate resources

The minimum requirements for the provision of effective cervical cancer screening services include access to supplies including swabs, slides, fixative equipment, acetic acid (if VIA is used), examination tables, specula, adequate light, and sterilisation facilities. The regular replenishment of these resources would ensure sustainable service provision. The results of the current study revealed irregular supplies of vinegar, gloves, and gas for sterilising equipment. Respondents reported that:

*"... sometimes we run out of sterile equipment such that some women are advised to wait while we sterilise the equipment."*

*"... at times we, health workers, contribute or one of us would just volunteer to buy one bottle of vinegar with her own money, but with one bottle of vinegar, not a lot of women would benefit from it."*

Although health centre A had a room designated specifically for cervical screening, this was not the case at all health centres. At health centre C, it was echoed that apart from having inadequate resources and equipment, there was also a problem of infrastructure. One of the nurse/midwives reported:

*"This programme of cervical cancer screening was introduced after these buildings had already been built. Therefore, sometimes we are in a situation where other health workers would like to use the same room for other services."*

### Cervical cancer screening schedules

Cervical cancer screening clinics at the three health centres were not offered daily, but were scheduled as shown in Table 1.

The clinic hours are 7.30-12:00. During weekends and public holidays these clinics were closed. One participant stated:

*"... if there was a chance for us to schedule more days for this, let's say providing screening services every day of the week, more women would be motivated to attend."*

### Distances of cervical cancer screening services from women's homes

In Malawi health centres are located to serve people within a radius of five kilometres in urban areas. However, populations living outside urban areas might have to travel further than five kilometres to reach a clinic, and not all clinics provide these services [13]. One participant from health centre A reported:

*"... Some women come as far as the, boundaries of Chiradzulu district, Kachere location and Limbe area to Bangwe health centers which is far."*

### Ethical Considerations

Permission was granted by the Higher Degrees Committee of the Department of Health Studies, University of South Africa, Malawi College of Medicine Research and Ethics Committee, the Blantyre District Health Officer, and from the three participating health centers' administrators. Every nurse/midwife decided voluntarily to be interviewed, and had opportunities to ask questions. All participants were informed about their rights to refuse to be interviewed, or to refuse to answer certain questions or to withdraw from the study at any stage, without incurring any negative consequences.

The nurse/midwives were treated respectfully, informed about the purpose of the study, and the interviews, that no remuneration was paid, that confidentiality and anonymity would be maintained, and the interviewer's contact information was provided in the event of further questions, comments or complaints related to the study. A private room was used for interviews, and no names were recorded, but a number was assigned to every interview. Written informed consent was obtained from each participant. There were no anticipated risks and no benefits.

### Trustworthiness

To enhance believability of the findings the interviewer established rapport and a trusting relationship with the nurse/midwives prior to conducting the interviews. The first author's clinical experience helped to establish and maintain rapport with the nurse-midwives at the three participating healthcare centres. Each interview lasted 30-45 minutes, enabling each interviewee to describe his/her relevant perceptions in his/her own words. The thematic analysis was done independently by a coder and the researchers. These different analyses were compared, contrasted, and discussed until consensus had been reached. The final report was read, and verified, by two participants as portraying their perceptions.

Dependability was established through inclusive transcription and coding of interviews for easy referencing, and validation by other qualitative researchers. To address confirmability, systematically collected raw data and tape recorded information were transcribed, and presented as common themes and sub themes. To ensure transferability, a comprehensive report, covering demographic characteristics of participants, was provided.

### Discussion of Findings

The findings will be discussed according to the themes that emerged from the data analysis: shortage of nurse-midwives, health education, resources for, and schedules of providing cervical cancer screening services, and the distances that women had to travel to access cervical screening services.

Women who requested screening services, but who could not be screened due to shortage of nurse/midwives and/or resources represent missed opportunities. Such women, especially if older than 42, might not access a clinic frequently, and might never request cervical screening again. Findings from a study, conducted in Peru [14], showed that both screened and unscreened women (16.0% and 24.0% respectively) reported that they had been turned away from a health facility that offered these services because the providers were too busy. Making professional nurses the primary screening providers is reasonable, given the need to increase access to these services [15]. However, this solution might fail to recognise that a screening programme entails more than just taking Pap smears as it has several components that should be well-coordinated, including facilities for diagnosis and treatment of

precursor cervical cancer lesions. In Malawi, there are nurse/midwives who have undergone training as cervical cancer screening service providers. Due to the shortage of nurse/midwives, these providers are also involved in other activities, rendering them incapable of providing screening services at request, causing non-availability of these services at times [9].

The overall purpose of providing health education about cervical cancer screening is to promote eligible women's interest in using these services. The current study's findings indicated that health education was provided to women attending prenatal, postnatal and family planning clinics, targeting to the child bearing age group who comprise a relatively low risk group for cervical cancer. Women aged 42 and older, comprising the high risk group for cervical cancer, miss cervical screening health education sessions because they rarely visit health centres. If these women visit clinics, they usually attend the general outpatient department where cervical screening services and health education sessions are not provided. Women in Malawi, aged 42 and older, are at risk of cervical cancer but tend to be unaware of and lack knowledge about relevant services [9].

No nurse-midwife participant in this study mentioned health promotion campaigns, but these might have some impact on women's decisions to use screening services. Women in Hong Kong [16] aged over 40 years indicated that health promotion campaigns played an important role in promoting unscreened women to use cervical screening services. Health education about cervical cancer, risk factors, and screening created an increased interest in cervical screening.

Nurse/midwives' health education sessions could be expected to impact on women's decisions to use cervical cancer screening services, if these professional persons had used these services themselves. As shown in Table 2, only 57.1% (n=8) nurse/midwives had done so, which does not reflect the participants' belief in the benefits of regular screening. Responses in relation to future plans for cervical screening included:

*"I am not decided as to when I will go for screening"*

*"I will go for screening should I have a problem."*

However, this situation is not unique to Malawi. At Mulago hospital in Uganda, a study on knowledge, attitudes, and practices of cervical cancer screening among the medical workers revealed that 93.0% of the respondents agreed that cervical cancer was a public health problem, they knew about Pap smear tests, and that cervical cancer is curable if detected early. Despite this, 81.0% of eligible female respondents had never been screened, mostly because they did not feel vulnerable to the disease. It was therefore unlikely that these medical workers would have felt motivated to screen others or advise them accordingly [17].

The participants reported that limited resources hampered their provision of CCS services to the extent that some nurses bought vinegar out of their own pockets to perform VIA examinations. Other researchers [18] also indicated that in low-resource settings, lack of access to essential requirements for cervical screening such as equipment, resources, and transport were frequently reported factors that could influence women's utilisation of these services negatively.

Health centres	Days scheduled for screening
A	Wednesdays
B	Monday, Wednesday and Friday
C	Monday, Wednesday and Friday

**Table 2:** Schedules for cervical cancer screening at the three health centres.

Table 1 indicates that centre a offered screening services only on Wednesday while the other two centres offered these services Mondays, Wednesdays, and Fridays but only from 07:30 till 12:00. No screening services were available over weekends or on public holidays, implying that the health system did not accommodate women's other commitments, such as employment and household chores. The current study's participants admitted that some women could not be screened when they requested these services. This finding was supported by other authors [19]. Who also reported that women's non-utilisation of CCS services was influenced by inconvenient screening times that were incompatible with their other commitments.

Some nurse-midwives indicated clinics providing screening services could be geographically distant from many women's homes. Consistent with these findings, Coughlin and King stated that facilities in urban areas are closer to persons' homes, and multiple transport pathways are available [20]. In Malawi, Hami's findings also confirmed that transport costs influenced women's intentions to use CCS services negatively [9].

## Limitations

All the data collected relied on information supplied by nurse/midwives during semi-structured interviews. No observations could be done to confirm the nurse/midwives' reported experiences, and perceptions, and women aged 42 and older were not interviewed. A large nation-wide study should be conducted, targeting all nurse/midwives who could provide CCS services in their clinics in Malawi, and all women aged 42 and older. Such a future study could identify, and help to address, potential shortcomings in the health care system, and women's concerns, that would enable more women to use CCS services in Malawi. This would help to reduce the cervical cancer mortality and morbidity rates in Malawi.

## Recommendations

Sustained supplies of screening resources are essential for providing these services, and should be ensured. A specific room should be designated for CCS services ideally offered every day of the week, integrated with other services to accommodate women who are busy during morning hours and working days. Health centres that discontinued providing screening services should re-introduce these services. Mobile clinics could serve communities that are far from health centres on an annual basis.

Health education about cervical cancer, and screening, should be provided at all clinics to enhance accessibility to women aged 42 and older.

All nurse/midwives working at health centres, providing cervical cancer services should be trained as providers through continuing professional development sessions. Designated nurse/midwives should be allocated to the cervical screening clinic, and should be exempted from other duties during these clinic days and hours.

The cervical cancer screening component in the nursing/midwifery curricula in Malawi should be competency-based to ensure that all future graduates will be competent CCS providers.

Research should be conducted to determine why few nurse/midwives use cervical screening services. Their utilisation of cervical screening services could impact positively on the effectiveness of their health education sessions.

## Conclusion

Malawi's cervical cancer screening programme aims to screen



80.0% of women aged 42 and older [21]. Unless this level of screening is achieved, Malawian women age 42 and older remain at high risk of cervical cancer morbidity and mortality, and will continue to do so until all factors identified in this study have been addressed successfully

### Authors' Contributions

M.Y.H. (University of South Africa) was the principal investigator who identified the need to conduct this study to help save women's lives in Malawi. She wrote the initial draft of the article and assisted with the development and processing the article. VJE was the supervisor of the study and assisted MYH throughout the study and during the writing of the thesis and assumed the role of corresponding author during the development and revision of the article. DM vd W was the joint supervisor of MYH and collaborated with the principal investigator during all phases of the study and assisted with the preparation of the draft and revision of the article.

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