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# Knowledge and Practices of Cervical Cancer Screening among Females of the Reproductive Age (15 - 49) of Ngwerere Catchment in Chongwe

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**Abstract:** ***The most common malignancy among women of reproductive age in Zambia is cervical cancer. According to estimations, there are over 2330 women diagnosed with cervical cancer and about 1380 of them die from the disease every year, with a population of roughly 4.42 million females who are between the ages of 15 and above who pose as risk category (Zambia, HPV, and Cancer information centre 2017). Results from a cross - sectional study conducted in Ndola, Zambia, by Kabalika et al. (2018) on levels of acceptance of cervical cancer screening and its correlation among women of the peri - urban residential area showed that of the 355 participants in the study, only 2.5% had undergone a cervical cancer screening, indicating low uptake of cervical screening. A descriptive study was conducted to assess the knowledge, and practice of Cervical Cancer screening among females of the reproductive age (15 - 49) at Ngwerere catchment in Chongwe. A structured questionnaire administered by assistant researchers was given to 365 women of reproductive age. The results of the study revealed that most of the women (57%) participants were not sure if cervical cancer information is important in the neighbourhood, implying that the majority of women have poor knowledge levels concerning Cervical Cancer. In as much as differences in knowledge levels were noted, such were based on age, education attainments, marital status neighbourhood, and religion. The study reviewed poor utilization and practice of cervical screening. Women don't know and are not sure where to obtain cervical cancer screening services. Most Women of 85% don't know someone who has gone for cervical cancer screening. The majority of Women 75% have not had screening forcervical cancer as yet in Ngwerere catchment Chongwe district.***

**Keywords:** Cervical Cancer, Human Papillomavirus (HPV), Screening, Knowledge

## 1. Introduction

All women are at risk for cervical cancer. Cervical Cancer is mainly caused by Human Papillomavirus. Human Papillomavirus is commonly transmitted from one individual to another during sexual intercourse. It's observed that half of the people who are sexually active risk contracting Human Papillomavirus at a certain stage of their lives. Noticeable is a fact that a few women eventually will develop Cervical Cancer. (WHO, 2014).

The majority of the more than 100 identified forms of HPV are not linked to cervical cancer. Only two forms of Human Papillomavirus types 16 and 18, are directly responsible for seven of every ten instances of cervical cancer recorded worldwide (WHO, 2014).

Women have been examined for cervical cancer using the method of Papanicolaou (Pap) smear since 1940 (Nuovo, Melnikow and Howell, 2001). New technologies have recently been created to enhance the identification of cervical cancer and its antecedents (Nuovo, Melnikow and Howell, 2001).

Other screening tests include Liquid - based/thin - layer preparation e. g. Autocyte Pre, which improves the quality of pap smear, and decreases the detection of cancer precursors (Nuovo, Melnikow and Howell, 2001) . Computer assisted screening (Autocyte Screening) and HPV testing e. g Hybrid capture II, is used in triage of patients with atypical squamous cells of un determined significance or non - correlating colposcopy (Nuovo, Melnikow and Howell, 2001)

Research indicates that, Cervical Cancer transmitted by human papilloma virus type 16 and 18, causes 75% of Cervical Cancer globally. (WHO, 2014).

Effective strategies for Cervical Cancer screening and treatment in developed countries have measurably reduced Cervical Cancer incidences and deaths. ((International Agency for Research on Cancer, 2008). Nevertheless, this has not been achieved in countries whose resources and healthcare technology is limited, resulting in systematic screening being rarely performed (Franco, 2010).

Cancer develops after precancerous lesions are detected for over 10years or more.30 - 40years of age is the highest risk of precancerous lesions among women and it's the ideal age for screening. (Alliance for Cervical Cancer Prevention (ACCP), 2004). However, younger women who have been sexually active should be screened as they might have lesions and even cancer especially if they have HIV infection (Maggwa & Hunter, 1993). The commonest malignancy among the women of Uganda is Cervical Cancer (WabingaHR. et. al.2000).

According to Kabalika et. al.2018, Zambia has one of the highest cervical cancer incidence and mortality rates in the world. Among the cancers reported among females to the Zambia National Cancer Registry between 1990 and 2009, cervical cancer was the most common (48.5%). In 2008, Zambia had an age - adjusted incidence rate of 52.8 per 100, 000 World Standard Population.

According to Eddy DM, 1990, although a Pap smear combined with treatment of cervical precancerous and early - stage cancer can prevent up to 80% of invasive cervical cancer cases in developed countries, high rates of mortality due to cervical cancer persist in developing countries because of low rates of cervical cancer screening.

In Ethiopia, it's recorded that healthcare providers present a poor attitude towards cervical cancer screening activities. (Gebreegziabher, Asefa and Berhe, 2016) . It's observable that the variations in study designs, study populations, and levels of acceptance of cervical cancer screening within the country (Zambia) indicate that there is no similar study carried out in the Chongwe district of Zambia, hence the study aims to assess the knowledge, and practice of Cervical Cancer screening at Ngwerere catchment in Chongwe, Zambia.

## 2. Methodology

The researcher employed a qualitative descriptive study. The research design adopted a predominantly qualitative approach in terms of the nature of the data collected.

The sample required for this study was carried through a formula for a single population proportion with the prevalence of knowledge about cervical cancer screening of the people in the community. This research employed a technique called multi - stage. This involved the selection of a representative sample with the help of the random sampling technique which gave approximately many households and age groups of women (15 - 49) years. Households were selected using a systematic random sampling technique by taking five household intervals. In cases where there was more than one eligible woman (15–49) year in the same house, a lottery method was utilized to select one woman. The number of eligible reproductive women (15–49) years from each study was picked by the proportional allocation to sample size.

The study targeted a total of 365 respondents of reproductive age accessing services at Ngwerere Clinic. The sample was determined based on the following descriptive study sample size determination formula (Kraemer, H. C. and Theimann, S. (1987). Data was collected using a standardized and pre - tested questionnaire. Data collectors and supervisors received prior training before the actual data collection activity.

## 3. Data Analysis and Results

The gathered data was coded, inputted, revised and cleaned in Microsoft Excel Windows 2010 before exporting to the STATA version for analysis. Followed by data pre - processing, descriptive statistics of the study variables were reported using frequencies and percentages for the categorical variables.

## 4. Presentation of results and analysis

Table 4.1shows the participants in the study who were between the ages of 15 and 20. The following are the distributed age groups of the participants; the majority of the participants (112) 30% were in the age range 31–35, with (7) 30% participants in the age group 26–30 and (17) 4% participants in the age of 15 - 20 as the lowest participants. (24) 6% participants in the age 21–25, 71 participants in the age 41 - 45, and 52 participants in the age 46 - 50 years. The majority of the participants belonged to the Christian religion 297 (81.37%) and this may significantly imply churches could be utilized to disseminate information about cervical cancer screening. In terms of educational qualifications, (133) 36% of respondents had secondary education, (144) 39% had attained primary level, 39 attained tertiary level and (49) 13 fell in the category of others who may potentially have not attained any level of education. The majority of the women (218) 59% were married which may imply a high risk of contracting cervical cancer, 83 of the respondents were divorced, 41 participants were single and 23 participants were widowed. Most of the respondents (156) 42% were retired and (100) 27% of the women were unemployed. The lowest response underemployment were (3) students and (9) falling under other related forms of employment. The other respondents were (12) 3% full - time employment and (28) 7% part - time.

**Table 4.1:** Demographic characteristics of sample participants (n=365)

| Variable | Levels | Proportion N (%) |
|---|---|---|
| Age Category | 15 - 20 | 17 (4.66) |
| | 21 - 25 | 24 (6.58) |
| | 26 - 30 | 7 (19.45) |
| | 31 - 35 | 112 (30.68) |
| | 36 - 40 | 18 (4.93) |
| | 41 - 45 | 71 (19.45) |
| | 46 - 50 | 52 (14.25) |
| Education | Tertiary | 39 (10.68) |
| | Primary | 144 (39.45) |
| | Secondary | 133 (36.44) |
| | Others | 49 (13.42) |
| Marital Status | Married | 218 (59.73) |
| | Widowed | 23 (6.30) |
| | Single | 41 (11.23) |
| | Divorced | 83 (22.74) |
| Employment | Full time | 12 (3.29) |
| | Part - time | 28 (7.67) |
| | Self - employed | 57 (15.62) |
| | Retired | 156 (42.74) |
| | Unemployed | 100 (27.40) |
| | Student | 3 (0.82) |
| | Others | 9 (2.47) |
| Religious Denomination | Christian | 297 (81.37) |
| | Muslim | 62 (16.99) |
| | Others | 6 (1.64) |

**Table 4.2**, 216 (59.18%) of the respondents had poor knowledge about cervical cancer whereas, 69 (18.90%) of respondents had good knowledge about cervical cancer. The majority of the respondents 234 (64.11%) did not know what causes cervical cancer. Some respondents 29 (7.9%) had no adequate knowledge about how a person can reduce the risk of contracting cervical cancer. A lack of understanding and appreciation of how a person can reduce the risk of contracting cervical cancer might impact negatively the respondents' abilities to prevent cervical cancer and also

utilize screening services. Most respondents believe that sources of information on cervical cancer be obtained through husband/partner, Family/friends, Health care providers, schools, Religious groups (church, mosque), TV/radio, Billboards, posters, Print media (newspaper, magazines) and the Internet (Social media, websites). Amongst all the sources, the respondents in Table 3 showed that 285 (78.08%) were not receiving their information from the Internet (Social media, websites), implying that levels of knowledge concerning Cervical screening can be greatly affected, especially since the technological advancement is among the fastest and easy ways to disseminate information to a large population**.** The respondents reported that health care providers are the highest source of information 183 (50.14%). About 191 (52.33%) of participants reported that husbands /partners are the lowest sources of information on cervical cancer and screening.

**Table 4.2:** Knowledge characteristics of sample participants (n=365)

| Variable | Level | Proportion N (%) |
|---|---|---|
| Have you heard about Cervical Cancer? | Yes | 69 (18.90) |
| | No | 80 (21.92) |
| | Not sure | 216 (59.18) |
| What causes Cervical Cancer? | High | 109 (29.86) |
| | Moderate | 22 (6.03) |
| | Low | 234 (64.11) |
| How can a person reduce the risk of contracting Cancer? | High | 35 (9.59) |
| | Moderate | 29 (7.95) |
| | Low | 301 (82.46) |

Table 4.3 below describes the knowledge of respondents to the sources of information. The majority, of women (50.14%) indicated they heard about cervical cancer from health care providers after they visited the health facility. Other sources of information were; husband/partner (47.67), family and friends (42.47), Schools (40.82), Religious groups (47.40) and the lowest internet (21.92).

**Table 4.3:** Knowledge of respondents on possible sources of information on Cervical Cancer

| Variables | Yes | No |
|---|---|---|
| Husband/Partner | 174 (47.67) | 191 (52.33) |
| Family/friends | 155 (42.47) | 210 (57.53) |
| Health care providers | 183 (50.14) | 182 (49.86) |
| Schools | 149 (40.82) | 216 (59.18) |
| Religious groups (church, mosque) | 173 (47.40) | 192 (52.60) |
| TV/radio | 169 (46.30) | 196 (53.70) |
| Billboards, posters | 130 (35.62) | 235 (64.38) |
| Print media (newspaper, magazines) | 102 (27.95) | 263 (72.05) |
| Internet (Social media, websites) | 80 (21.92) | 285 (78.08) |

In Table 4.4 Majority of the participants (57%) were not sure if cervical cancer information is important in the neighbourhood, implying that most of the women have poor knowledge levels. Only 21% of the respondents do not know whether it's important to discuss issues concerning cervical cancer in the community. Most of the women presented 59% of them not finding it easy to have access to a health care provider within the neighbourhood, implying the limited availability of information within the neighbourhood. The majority of the (19%) women presented poor knowledge levels over the existence of prevention programs in the neighbourhood and (47.67%) of respondents presented total non - existence of the prevention programs organized in the neighbourhood. Only (33%) of respondents presented ahigh knowledge of the existence of prevention programs in the neighbourhood on cervical cancer services.

**Table 4.4:** Knowledge of Cervical Cancer in the neighbourhood of sample participants (n=365)

| Variables | Levels | Proportion N (%) |
|---|---|---|
| Is cervical cancer an important issue in your neighbourhood? | Yes | 77 (21.10) |
| | No | 78 (21.37) |
| | Not sure | 210 (57.53) |
| Is it easy to find a healthcare provider? | Yes | 83 (22.74) |
| | No | 218 (59.73) |
| | Not sure | 64 (17.53) |
| Do you have cervical cancer prevention programs organized in the neighborhood | Yes | 121 (33.15) |
| | No | 174 (47.67) |
| | Not sure | 70 (19.18) |

Table 4.5 below shows the different variations in knowledge among these women. The majority (11.23%) individuals of aged 41 - 45 had high levels of knowledge about cervical cancer and screening services. Age 26 - 30 (3.01%) showed moderate levels of knowledge and the age 31- 35 (26.30%) had the lowest knowledge levels among the participants of the study. However, (16.16%) of women showed high levels of no formal education, accompanied by (43.01%) of women with low levels of knowledge about understanding cervical cancer and screening services. Majority of the women (16.16%) divorced presented with high levels of knowledge and (29.0) of those that presented high were retired/pensioned. (43%) of the married and (26.0%) of unemployed women presented a poor or low understanding of cervical cancer. The majority of women who participated in the study (23%) are Christians and presented high levels of knowledge and (55.6%) of women who were Christians presented low or poor knowledge levels on cervical cancer.

**Table 4.5:** Demographics vs. knowledge

| | Age | | | | | | | education | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 15 - 20 | 21 - 25 | 26 - 30 | 31 - 35 | 36 - 40 | 41 - 45 | 46 - 50 | **Tertiary** | **Primary** | **Secondary** | **others** |
| **High** | 0<br>0.00 | 0<br>0.00 | 21<br>5.75 | 14<br>3.84 | 0<br>0.00 | 41<br>11.23 | 33<br>9.04 | 50<br>13.70 | 0<br>0.00 | 0<br>0.00 | 59<br>16.16 |
| **Moderate** | 0<br>0.00 | 1<br>0.27 | 11<br>3.01 | 2<br>0.55 | 3<br>0.82 | 1<br>0.27 | 4<br>1.10 | 11<br>3.01 | 1<br>0.27 | 7<br>1.92 | 3<br>0.82 |
| **Low** | 17<br>4.66 | 23<br>6.30 | 39<br>10.68 | 96<br>26.30 | 15<br>4.11 | 29<br>7.95 | 15<br>4.11 | 157<br>43.01 | 22<br>6.03 | 34<br>9.32 | 21<br>5.75 |

| | Marital | | | | | | Occupation | | | | | Religion | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Married | Widowed | Single | Divorced | Full time | Part-time | Self – employed | Retired | Unemployed | Student | others | Christianity | Muslim | others |
| High | 50<br>13.70 | 0<br>0.00 | 0<br>00 | 59<br>16.16 | 0<br>0.00 | 0<br>0.00 | 0<br>0.00 | 106<br>29.04 | 3<br>0.82 | 0<br>0.00 | 0<br>0.00 | 84<br>23.01 | 25<br>6.85 | 0<br>0.00 |
| Moderate | 11<br>3.01 | 1<br>0.27 | 7<br>1.92 | 3<br>0.82 | 2<br>0.55 | 4<br>1.10 | 9<br>2.47 | 5<br>1.37 | 1<br>0.27 | 0<br>0.00 | 1<br>0.27 | 10<br>2.74 | 11<br>3.01 | 1<br>0.27 |
| Low | 157<br>43.01 | 22<br>6.03 | 34<br>9.34 | 21<br>5.75 | 10<br>2.74 | 24<br>6.58 | 48<br>13.15 | 45<br>12.33 | 96<br>26.30 | 3<br>0.82 | 8<br>2.19 | 203<br>55.62 | 26<br>7.12 | 5<br>1.37 |

As shown in Table 4.7, 47% of the women don't know where to obtain cervical cancer screening services and 21% know to get these services. As shown in the below 31% are not sure as to where to get cervical screening services. Women of 41% know where to get cervical screening services are founds in government clinics and 58% don't know where to get the services. Women of 85% don't someone who has gone for cervical cancer screening and only 14% know someone who has visited the screening services. Most women 65% presented the number of women out of 10 women who can attend the cervical screening and out of this percentage at least less than 5 but not none can attend. Women 274 have not had the screening for cervical cancer.

**Table 4.6:** Utilization of cervical cancer screening services

| variables | level | Proportion N (%) |
|---|---|---|
| Do you know where to go to get cervical screening service | Yes | 77 (21.10) |
| | No | 174 (47.67) |
| | Not sure | 114 (31.23) |
| Do you know about cervical screening services in government clinics | Yes | 150 (41.10) |
| | No | 215 (58) |
| Do you know someone who has gone for cervical cancer screening | yes | 53 (14.2) |
| | No | 312 (85.48) |
| How many women attend the screening for cervical cancer out of 10 in N. B | None of them | 62 (16.99) |
| | Less than 5 but not none | 239 (65.48) |
| | Half of them | 24 (6.58) |
| | More than 5 but not all | 30 (8.22) |
| | All of them | 10 (2.74) |
| Have you ever had a cervical screening? | Yes | 63 (17.26) |
| | No | 274 (75.07) |
| | Not sure | 28 (7.67) |
| Did someone ever accompany you for cervical screening | yes | 58 (16) |
| | no | 307 (84) |

It is shown in Table 4.8 that below70%of women agree with the variable its difficulty to find time to go for cervical screening and 42% of respondents disagree with this variable. Women 73% agree with the variable of difficulties in transportation for screening, whereas 40 % of women disagree and 66% represent women who agree with the variable of it being expensive to get to the clinic. Most 63%present women are nervous about cervical cancer screening and 58% expected cervical screening to be painful.

**Table 4.7:** Reasons for not attending cervical screenings services

| Variables | Level | Proportion N (%) |
|---|---|---|
| Finding time to go for screening is a difficulty | Completely disagree | 12 (3.29) |
| | Disagree | 42 (11.51) |
| | Neither agree/nor disagree | 50 (13.70) |
| | Agree | 257 (70.41) |
| | Completely agree | 4 (1.10) |
| Transportation to go for screening is difficult to find | Completely disagree | 9 (2.9) |
| | Disagree | 38 (10.41) |
| | Neither agree/nor disagree | 40 (10.96) |
| | agree | 267 (73.15) |
| | Completely agree | 11 (3.01) |
| It's too expensive to get the clinic | Completely disagree | 9 (2.47) |
| | Disagree | 41 (11.23) |
| | Neither agree/nor disagree | 53 (14.52) |
| | Agree | 244 (66.85) |
| | Completely agree | 18 (4.93) |
| Am nervous about being screened. | Completely disagree | 7 (1.92) |
| | Disagree | 34 (9.32) |
| | Neither agree/nor disagree | 60 (16.44) |
| | Agree | 197 (53.97) |
| | Completely agree | 67 (18.36) |
| I expect cervical screening to be painful | Completely disagree | 8 (2.19) |
| | Disagree | 32 (8.77) |
| | Neither agree/nor disagree | 52 (14.25) |
| | Agree | 214 (58.63) |
| | Completely agree | 59 (16.16) |

## 5. Conclusion

The researcher concluded that few women routinely had their cervix checked for cancer. Women with low levels of education (primary education) in particular had little knowledge of cervical cancer and screening services. The researcher, also concluded that the poor attitudes and practices can be attributed to the lack of information and awareness about cervical cancer and poor health promotion services in the neighborhood. This can be seen from the findings that, the few women that knew about cervical cancer screening, are those that live near, or have friends and partners that work or are associated to health care givers within the neighborhood. Other sources of information came from social media and schools.

## 6. Recommendations

1) Therefore deliberate efforts should be made by the Ministry of Health to ensure that screening services for cervical cancer are implemented in schools, public facilities, social media and public health facilities in rural and urban areas so that more women have access to the services. This can be done in collaboration with the private sector and civil society.
2) Deployment of mobile cancer screening and treatment

units especially in distant and remote areas.

3) Roll out education and awareness campaigns through the help of health staff and community volunteers. This will increase women's awareness of cervical cancer and encourage women to access cervical cancer screening services.
4) The government of Zambia should consistently honor its budgetary allocation of at least 35% to the ministry of health. This financial support has a significant effect as it trickles down to funding cervical cancer screening and treatment services across the width and length of the country prioritizing the rural settings.
5) The services for treatment and screening for Cervical Cancer must be made easy to access by all categories and age groups of women. This should include all religious and marginalized people groups.
6) It's with this background that the researcher seeks to recommend further research studies to be conducted particularly with nurses exploring fundamentals of the barriers existing from the viewpoint of health workers in communities utilizing the available cervical cancer services.

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