

**BINDURA UNIVERSITY OF SCIENCE EDUCATION**

**FACULTY OF SCIENCE AND ENGINEERING**

**DEPARTMENT OF HEALTH SCIENCES**



**FACTORS ASSOCIATED WITH LOW VISUAL INSPECTION WITH ACETIC ACID  
AND CERVICOGRAM (VIAC) UPTAKE AMONG WOMEN 18 TO 25 YEARS AT  
GOKWE SOUTH DISTRICT HOSPITAL**

**BY**

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### Declaration

I, Mtukwa Aduniya declare that this project is an original work and has not been submitted to this university or any other university in Zimbabwe.

Student Signature...

A handwritten signature in blue ink, consisting of several loops and a long horizontal stroke.

Date...24/09/24

## Approval Form

The undersigned certifies that they have supervised, read and recommended to Bindura University of Science Education for acceptance a research project entitled: Factors associated with low Visual Inspection with Acetic acid and Cervicogram (VIAC) uptake among women, submitted in partial fulfilment of the requirements of the Bachelor of Science (Honors) Degree in Nursing Science and Education.

### To be completed by the student:



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Date: 24/09/24

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### To be completed by the supervisor:

This dissertation is suitable for submission to the faculty and was checked for conformity with the faculty guidelines



Ms. E. MWANZA

Date: 30/09/2024

(Signature of the supervisor)

### To be completed by the chairperson of the department:

I certify that to the best of my knowledge; the required procedures have been followed and the preparation criteria have been met for this dissertation.



Ms. A. MANWERE

30.09.2024

Date

(Signature of chairperson)

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## Dedication

To my beloved sons, Rowland and Marcus, I lovingly dedicate this work. Being separated from you during this journey was a challenge but knowing it was for a greater purpose made it worthwhile. As a mother, my love and care for you both will forever endure, and I am proud to have taken this step towards a brighter future for our family. May this achievement inspire you to pursue your own dreams and aspirations?

## Abstract

Gokwe South District Hospital, serving the largest district in Midlands Province, faces a pressing concern: high rates of advanced cervical cancer despite low participation of cervical cancer screening, prompting this study to investigate factors hindering Visual Inspection with Acetic and Cervicogram (VIAC) uptake among women aged 18 to 25 years at Gokwe South District Hospital. A descriptive study design was employed together with a convenient sampling technique utilized to identify a sample of one hundred and fifty women aged between 18 to 45 years. Data was collected by means of self-administered questionnaire. Data collected was analyzed, interpreted and presented using tables, graphs, pie charts and percentiles. From the data collected, it was noted that the majority of the respondents, 23% were from Mapfungautsi location while the least, 13% were from Sasame. It was also noted that all participants understood both English and Shona. The majority of the participants, 27% were within age ranges 18 to 25 while the least, 11% belonged to the age ranges 41 to 45. Most of the respondents, 35% had a total number of four children while the least, 11% had one child. On marital status, 27% of the participants were married while 22%, 20%, and 31% were single, widowed and divorced respectively. (Twenty nine) 29% and 3% attained secondary and tertiary education respectively while the majority, 36% and 32% attained primary education and no formal education respectively. The majority, 58% were traditionalists. Study findings also indicated that only 20% of the participants were formally employed while 27%, 25% and 28% were self-employed, housewives and not employed respectively. Factors contributing to low Visual Inspection with Acetic acid and Cervicogram (VIAC) uptake included among others: misconceptions and negative attitudes whereby 30% believed a cervical cancer diagnosis means a death sentence, and 27% cited cultural restrictions on discussing reproductive health. Fear and misconception about the procedure had 46% of the participants who perceived the screening procedure as traumatic and painful. Lack of motivation had 38% of the participants. Recommendations are that policy holders establish Visual Inspection with Acetic acid and Cervicogram (VIAC) screening facilities in hard to reach to areas, nurses to intensify on outreach programs on awareness and screening of cervical cancer as well as carrying a study to identify the effects associated with low uptake of the screening procedure.

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## **CHAPTER 1**

### **Introduction**

This chapter covered the background to the study and the problem statement. The purpose of the study, research objective as well as the questions to be answered by the study were identified and set. The significance of the study to the healthcare workers and women of childbearing age was also outlined. The defining of key terms to the research topic was lastly done.

### **Background to the study**

Hull, et al., (2020) defines cervical cancer as a malignant tumor that can grow in the cervix. According to the National Cancer Institute, (2022), cervical cancer is classified into two main categories namely squamous cell carcinoma and adenocarcinoma. The institute further cited that the squamous cell carcinoma develops from the ectocervix cells and accounts for 90% with remaining 10% comprising of the adenocarcinoma which develops from the endocervix glandular cells. There are several contributing factors that have been discovered to be the causes of the disease and these include having concurrent sexual partners, becoming sexually active at an early stage, multi parity and active tobacco use (Kashyap, 2019). World Health Organization (WHO, 2024) stated that cervical cancer is the fourth most common cancer affecting women with 660 000 new cases and 350 00 deaths recorded in the year 2022. The organization further stated that 94% of the 350 deaths were from Low- and Middle-Income countries with Sub Saharan Africa, Central Asia and South East Asia being affected most. In Indonesia, cervical cancer is on the second position after breast cancer occupying 17, 2% of all cancers affecting women (Indonesia Health Profile (IHP), 2021). The health profile further indicated that the mortality rate increased by two folds to 19, 1% from 2008 with this being attributed to low screening coverage. Statistics by the America Cancer Society (ACS), 2024 shows that the cervical cancer mortality and incidence rates stabilized by half from the 1970s to the 2000s with this being necessitated by the uptake of prevention and screening methods.

According to the Western Cape Government (2021), 1 in every 42 women is at risk of being diagnosed with cervical cancer thereby putting the incidence rate at between 22,8 and 27 per 1000 women when compared to the global average of 15,8. The same author further cited that 7 out of 10 women eventually contract the disease in their lifetime. Dhamija, et al., (2021) stated that, appropriate management for any cancer can be implemented through the use of the staging system which is used to define the anatomical extent of the disease. Salib, et al., (2022) cited that cervical cancer staging is done using the International Federation of Gynecology and Obstetrics (FIGO). He further cited that the staging system is an addition of imaging and pathology to the already existing clinical staging. Salib, et al., (2020) indicated that stage 1 of the disease is when it is confined to the cervix alone and is subdivided into A and B depending on the depth of the cancer. He went on to state that the subdivisions are further sub grouped depending on the following features; cancer which is less than or equal to 5mm in depth is in stage 1A, that which is less than or equal to 3mm being in stage 1A1, where the cancer is greater than 3mm but less than 5mm falling under stage 1A2, when the disease is more than 5mm in depth it is in stage 1B, less than or equal to 2cm being stage 1B1, greater than 2cm but less than or equal to 4cm is stage 1B2 and that which is greater than 4cm being stage 1B3.

According to Bhatla, et al., (2021), cervical cancer stage 2 is when the disease has spread beyond the uterus but not into the lower third of the vagina or the pelvic wall. He went on to cite that stage 2 is divided into stages A and B which are again sub divided into subgroups as follows; stage 2A is when there is the invasion of the upper two thirds of the vagina excluding the parametrial, stage 2A1 is when the disease is less than or equal to 4cm, stage 2A2 is when the cancer is greater than 4cm and stage 2B involves the parametrial invasion excluding the pelvic wall. Stage 3 cervical cancer is when the diseases covers the lower third of the vagina and has either of the following features: extends to the pelvic wall, causes kidney impairment, the involvement of pelvic and para aortic lymph nodes, (Lee, et al., 2019). He added that the stage is further divided into A, B and C whereby stage A involves the lower third of the vagina without extending into the pelvic wall, stage B extends into the pelvic wall with the tumor either causing kidney impairment.

According to the same author, stage 3C involves the pelvic and para-aortic lymph nodes regardless of the size and extent of the tumor while 3C1 involves pelvic lymph nodes only and 3C2 involves para-aortic lymph nodes. National Cancer Institute, (2022) stated that cervical cancer stage 4 or metastatic cancer is when the disease has spread to other body parts and it is divided to A and B unto which there are again sub groups. The same author further cited that stage 4A is when the disease has spread to other pelvic organs such as the bladder while stage 4B is when the disease would have spread to other body parts such as the lung and liver.

### **Problem statement**

Data by the World Health Survey indicates that the coverage of cervical cancer screening was 10% in Sub-Saharan Africa and that less than 1% of women in 4 Western African Countries have been screened for cervical cancer, (Yimer, et al., 2021). The low uptake of the cancer screening services is escalating as indicated by high global to national cervical cancer burden. The global cervical cancer burden as stated by the World Health Organization (WHO), (2022) indicates an estimation of 604 000 new cases and 342 000 deaths in 2020, 90% of the cases where from the Low to Middle Income Countries (LMIC) with the most affected being the young mothers and those living with the Human Immunodeficiency Virus (HIV). According to the National Cancer Institute, (2023), cervical cancer is classified into two main categories namely squamous cell carcinoma and adenocarcinoma. The institute further cited that that the squamous cell carcinoma develops from the ectocervix cells and accounts for 90% with remaining 10% comprising of the adenocarcinoma which develops from the endocervix glandular cells. The cervical cancer profile released by the International Agency Research on Cancer, (2023) indicates that out of a total population of 5, 24 million Zimbabwean women who are at risk of developing cervical cancer, 3 043 are diagnosed and 1 976 die from the disease annually.

Raw data from the Midlands Province Information Department shows the cervical cancer incidence and mortality rates of 35% and 30% respectively for the year 2022, from that of 30% and 25% recorded in the year 2020, Provincial Statistics Unpublished, (2022).

Data by the Zimbabwe National Statistics Agency Census (2022) indicates a total population of 65 000 females of child bearing age in Gokwe South District. According to unpublished data from the Gokwe South District Hospital Visual Inspection with Acetic acid and Cervicogram (VIAC) Department, only 5, 3% of the total population of childbearing age women have been screened using Visual Inspection with Acetic acid and Cervicogram (VIAC) with the cervical cancer incidence and mortality rates for the year 2022 rising to 33% and 30% respectively from 30% and 25% in 2020, Department Statistics Unpublished, (2022). Why are the women not participating in this free initiative for them to be screened? Is it because they are not interested in their own health or they lack knowledge of the disease and screening procedures?

### **Purpose of the study**

The purpose of the study was to assess factors associated with low Visual Inspection with Acetic acid and Cervicogram (VIAC) uptake among women aged 18 to 45 years at Gokwe South District Hospital.

### **Research objective**

To assess factors associated with low Visual Inspection with Acetic acid and Cervicogram (VIAC) uptake among women aged 18 to 45 years at Gokwe South District Hospital.

### **Research question**

Which factors are associated with low Visual Inspection with Acetic acid and Cervicogram (VIAC) uptake among women aged 18 to 45 years at Gokwe South District Hospital?

### **Significance of the study**

#### **Health care workers**

This study is significant to health workers because they will be able to address myths and conceptions that surround cervical cancer and the screening methods. This will help them in giving adequate information that will be able to convince women to participate in the screening process as this will reduce the mortality rate due to cervical cancer. Thus, the health education sessions will address critical issues that would have been identified in the study.



### **Women of child bearing age**

Women of child bearing age will benefit from this study because it will remove all the grey areas that exist on Visual Inspection with Acetic acid and Cervicogram (VIAC) topic. They will get enough information on the screening procedure and why it is important for them to participate in it and in turn they will opt for the procedure.

### **Assumptions**

The study assumed that there is lack of information regards to Visual Inspection with Acetic acid and Cervicogram (VIAC) uptake among women.

### **Delimitations**

This study focused on women of age group 18 to 45 years seeking health care services at Gokwe South District Hospital and will not include other districts.

### **Limitations**

The researcher was time limited as the research had to be submitted within the degree time frame. The researcher was concentrating only on the child bearing women visiting the hospital, however some child bearing women at home were left out.

### **Definition of terms.**

**VIAC-** Visual Inspection with Acetic acid and Cervicogram- it is the examination of the cervix using 3 to 5% acetic acid to detect abnormal cells, (Gunguwo, et al., 2021).

**Women of child bearing age-** women of the age group of 15 to 45, (United States Center for Disease Control, 2020)

**Cervical cancer screening-** is a test which is used to find changes in the cells of the cervix that could lead to cervical cancer, (The American College of Obstetricians and Gynecologists. 2024).

### **Summary**

The chapter looked into the proposed study problem. The purpose of the study, its objective and the research question were identified and set.

The significance of the study to health care workers and women of child bearing age was outlined. The background to the study has shown that there has been a low uptake of Visual Inspection with Acetic acid and Cervicogram as indicated by high cervical cancer incidence and mortality rates. This has led the researcher to carry out a study at Gokwe South District Hospital in Zimbabwe to identify those factors associated with the low uptake of Visual Inspection with Acetic acid and Cervicogram (VIAC)

## **CHAPTER 2**

### **LITERATURE**

#### **Introduction**

This chapter focuses on the review of literature related to factors associated with low uptake of Visual Inspection with Acetic acid and Cervicogram (VIAC) among women aged 18 to 45 as well as the theoretical framework to the study. Literature review in research refers to the evaluation and critiquing of work done by other accredited authors that is relevant to the researcher's broad area, (McCombes 2023). In this chapter the researcher will uncover the known, unknown and the gaps in: Factors associated with low Visual Inspection with Acetic acid and Cervicogram uptake among women aged 18 to 45 years

#### **Factors associated with low Visual Inspection with Acetic acid and Cervicogram (VIAC) uptake among women**

According to Barrow, (2022), screening and treatment should be a priority because millions of women have already been infected with the Human Papilloma Virus (HPV). Visual Inspection with Acetic acid and Cervicogram (VIAC) is a cancer screening method for women aged between thirty to fifty years and it involves visualization of the cervix using a camera after the application of acetic acid while cryotherapy and Loop Electrical Excision Procedure (LEEP) are performed for precancerous lesions, (Better Health Africa, 2015). In a study by Kamanga, et al., (2023), factors associated with low utilization of cervical cancer screening services amongst women in Lilongwe, Malawi included lack of knowledge to cervical cancer and its screening procedure which was indicated by 75% of the total respondents. Seventy- nine percent (79%) believed that cervical cancer can be cured at any stage and that doctors are able to perform wonders in curing it. Thirteen (13) % expressed laziness in visiting the screening facility while 12% expressed lack of time to go and get screened. There were some misconceptions in other women who believed that being diagnosed with cervical cancer will be an end to their lives for it could not be cured.

Maree and Band (2018) conducted a study on knowledge on cervical cancer and its prevention amongst Malawian women in Chiradzulu district. Of the studied population only 22, 9% indicated to have been screened and those not screened expressed lack of knowledge as the reason. In Nigeria, cervical cancer screening coverage is at only 8, 7% which is extremely poor, (Santika 2019). Reasons for poor coverage were attributed to be psychological, societal and institutional. Other reasons also included lack of awareness, insufficient knowledge of the disease including its preventive and treatment measures, lack of spousal support, misconception, stigma and modesty, cultural beliefs and traditions as well as access to and usage of health care facilities.

According to Khadim, et al., 2020, the cervical cancer screening rate in Senegal stood at 19% and 12% at district and national levels respectively. The low screening uptake was attributed to lack of knowledge on the disease pathology amongst women of different socio-economic and educational statuses. In a study conducted in Asokore-Mampong in Ghana, results revealed that only 24, 6% of the studied population had been screened regardless of the proximity to the health facility which provides free cervical cancer screening, (Tawiah, et al., 2022). High cost of Visual Inspection with Acetic acid and Cervicogram services, transportation expenses, and the need for multiple visits act as deterrents for women, especially from low-income backgrounds, to undergo screening. (Katzki et al., 2018). The consequences of financial constraints on accessing and undergoing Visual Inspection with Acetic acid and Cervicogram are grave because without widespread availability and affordability of Visual Inspection with Acetic acid and Cervicogram ,many women will remain undiagnosed until the disease reaches advanced stages, reducing the chances of successful treatment, (World Health Organization, 2020). The organization further stated that this in turn, contributes to the high mortality rates associated with cervical cancer in low-income countries (World Health Organization, 2020).

Limited awareness about cervical cancer and its prevention is a common issue in many low-income countries. A study conducted by Roomaney et al., (2020) in South Africa found that the majority of women lacked knowledge about cervical cancer and its risk factors. The same authors also stated that this lack of awareness extends to the availability and benefits of screening methods.

Poor distribution of Visual Inspection with Acetic acid and Cervicogram (VIAC) clinics is another factor discovered by Weber, et al., (2020) who highlighted that Visual Inspection with Acetic acid and Cervicogram (VIAC) clinics are often concentrated in urban areas, leaving rural populations with limited or no access to these services. The same authors further stated that this geographical mal-distribution creates disparities in healthcare access, as women from remote regions must overcome significant travel barriers or relocate to receive the required Visual Inspection with Acetic acid and Cervicogram (VIAC) examination. A study conducted by Mumba et al. (2018) found that a substantial number of women residing in underserved areas were unaware of Visual Inspection with Acetic acid and Cervicogram (VIAC) as a screening option and that the lack of knowledge limits their ability to seek timely screening, emphasizing the need for targeted educational campaigns in these regions. The shortage and disproportionate distribution of Visual Inspection with Acetic acid and Cervicogram facilities and clinics impede the early detection and proper management of cervical abnormalities. This was discovered through a study by Shrestha et al. (2019) who indicated that where Visual Inspection with Acetic acid and Cervicogram (VIAC) clinics were scarce, women were less likely to undergo regular screening, leading to delayed detection of precancerous changes.

Furthermore, the fear of pain associated with Visual Inspection with Acetic acid and Cervicogram (VIAC) can also act as a barrier and this was indicated in a study by Anderson et al. (2019) which highlighted that fear of pain and physical discomfort were main reasons for avoiding cervical cancer screening. Stigma is another significant barrier that affects women's access to and acceptance of Visual Inspection with Acetic acid and Cervicogram (VIAC) as cervical cancer is still associated with misconceptions and negative societal attitudes in many communities this was shown in a study by Mutyaba et al. (2018) who found out that women feared social judgment if they were found to have cervical lesions, particularly as it may be associated with sexual activity or sexually transmitted infections. Taboos and stigmas associated with reproductive health discussions, as well as gender inequities, can hinder women's willingness to participate in Visual Inspection with Acetic Acid and Cervicogram. (Ahmed et al., 2020).

The authors further cited that several cultures and societies associate cervical cancer with sexual promiscuity or immoral behavior, leading to stigmatization and shame. This stigma prevents women from disclosing their symptoms or seeking cervical cancer screening (Denny, 2020). There is stigmatization surrounding cervical cancer which often arises from misconceptions about the disease, screening methods, and its association with infertility or portrayal as a death sentence (Lim, Ojo, and Panday, 2021). Such fears and misconceptions can deter women from seeking Visual Inspection with Acetic Acid and Cervicogram, creating a barrier to early detection and treatment.

In some societies, discussion of reproductive health or undergoing invasive procedures is considered inappropriate or taboo. This gender-related stigma further restricts women's access to Visual Inspection with Acetic acid and Cervicogram (VIAC) as they may hesitate to discuss or undergo the procedure due to societal expectations (Lim, Ojo, and Panday, 2021). Negative attitudes and lack of empathy from healthcare providers can contribute to the stigma associated with cervical cancer and screening (Denny, 2020). Insensitive communication or judgmental behavior may reinforce feelings of shame, preventing women from accessing Visual Inspection with Acetic Acid and Cervicogram (VIAC). Living far from healthcare facilities and residing in hard-to-reach areas limit women's access to Visual Inspection with Acetic acid and Cervicogram (VIAC) services. (Hakim et al., 2019). This barrier hampers the early detection and screening for cervical cancer, a leading cause of death among women in many developing countries. Access to healthcare services is crucial for ensuring early detection and treatment of diseases, including cervical cancer. However, for individuals living in remote and hard-to-reach areas, the lack of proximity to healthcare facilities presents a significant obstacle. According to the World Health Organization (WHO), (2019) around 75% of the global population lacks access to essential healthcare services, mainly due to geographical and socioeconomic barriers (World Health Organization, 2019). The same organization further stated that this barrier is particularly prevalent in low-income countries, where there is limited infrastructure and resources for healthcare. One study conducted by Husain et al. (2020) in Pakistan highlights the impact of living far from healthcare facilities on cervical cancer screening. The study revealed that women residing in rural areas faced difficulties in accessing healthcare facilities, resulting in lower rates of cervical cancer screening.

The authors emphasized the need for innovative strategies to reach these underserved populations, such as mobile healthcare units or community-based screening programs. Furthermore, lack of transportation and poor infrastructure also contribute to the difficulties faced by individuals living in remote areas. In a study by Mwaka et al., (2019) in Uganda, transportation-related challenges were identified as a significant barrier to cervical cancer screening in rural communities. The study emphasized the need for investment in transportation infrastructure and mobile screening programs to overcome this barrier. In recent years, various innovative approaches have been suggested to address these challenges. For instance, telemedicine and mobile health technologies have shown potential in reaching individuals in remote areas. A study conducted by Kohler et al. (2021) in Guatemala examined the feasibility of using telemedicine for cervical cancer screening in rural communities. The authors found that telemedicine consultations facilitated access to experts and provided guidance for healthcare workers in remote regions,

Inadequate availability and accessibility of Visual Inspection with Acetic acid and Cervicogram information in local languages and culturally appropriate materials invalidate the screening's effectiveness for specific communities. (World Health Organization [WHO], 2018). The inadequate availability and accessibility of Visual Inspection with Acetic acid and Cervicogram information in local languages and culturally appropriate materials hinder individuals' understanding of the importance of cervical cancer screening and subsequently discourage them from seeking such services. This barrier primarily affects populations with limited access to formal education and lower health literacy levels. According to a study conducted by Jassim et al. (2021), individuals' lack of awareness about cervical cancer and its prevention methods was attributed to the lack of information available in their local languages. The same researchers found out that individuals who predominantly spoke non-mainstream languages faced difficulties comprehending the screening process and its benefits. As a result, women from these communities were less likely to seek Visual Inspection with Acetic acid and Cervicogram (VIAC) services, leading to missed opportunities for early detection and treatment. A quantitative study conducted by Ipsos (2019) on cervical screening among ethnic minority women in the United Kingdom highlighted the significance of culturally appropriate materials. The study found that participants had limited knowledge about cervical cancer and screening due to the absence of materials tailored to their cultural beliefs and practices.

Participants emphasized the importance of information presented in relatable and culturally sensitive ways to increase their acceptance and utilization of Visual Inspection with Acetic acid and Cervicogram services. Lack of privacy during the Visual Inspection with Acetic acid and Cervicogram procedure and concerns regarding data confidentiality can discourage women from undergoing screening. (Denny, 2020). The fear of a breach in privacy and confidentiality often influences women's decision to access Visual Inspection with Acetic acid and Cervicogram. Cultural norms or lack of discreet facilities for screening may discourage women from participating in screening programs (Pai et al., 2018). Previous traumatic or discomforting experiences during Visual Inspection with Acetic acid and Cervicogram or other gynecological procedures can influence women's decisions and willingness to undergo future screenings. (Soe & Tun, 2019). Research studies show that women who have experienced distressing encounters are more likely to exhibit symptoms of anxiety and fear during subsequent gynecological procedures (Kirana et al., 2019). These psychological challenges can lead to avoidance behaviors, resulting in delays or avoidance of Visual Inspection with Acetic acid and Cervicogram or other cervical cancer screening procedures.

Fear and anxiety associated with past traumatic experiences play a crucial role in hindering women's access to Visual Inspection with Acetic acid and Cervicogram. A study by Campos et al. (2020) found that women who had previously undergone invasive procedures, such as cervical biopsies, reported significantly higher levels of fear and anxiety during Visual Inspection with Acetic acid and Cervicogram. These negative emotions can immobilize individuals, making it challenging for them to undergo the necessary screening, leading to missed opportunities for early detection and treatment of cervical abnormalities. Another significant barrier emerging from previous traumatic gynecological experiences is a lack of trust in healthcare professionals and the screening process itself. A study conducted by Abraham et al., (2019) highlighted the importance of patient-provider trust in influencing women's willingness to undergo cervical cancer screening.



The authors emphasized the essential need for healthcare providers to foster a trusting environment and address previous negative experiences to encourage women to undergo Visual Inspection with Acetic acid and Cervicogram and other screenings confidently.

### **Conceptual Framework**

The theoretical framework of this study was hinged in the Health Belief Model which was propounded in the 1850s by social psychologists, Hochbaum, Rosenstock and others who were working in the United States Public Health Service. The scholars wanted to understand the reason why people failed to adopt disease prevention strategies or screening tests for early disease detection, (LaMorte, 2022).

Larango (2016), stated that the Health Belief Model proposes that people will likely take preventive measures after perceiving the seriousness of the threat of the health risk, if they are personally susceptible and if the costs of engaging in it are fewer than benefits so as a result the model points out that behavior change become more effective when addressing individual's specific perceptions about susceptibility, benefits, barriers and self-efficacy. The same author also stated that interventions may include risk calculation and prediction as well as personalized advice and education. According to Kagee, et al., (2017), the Health Belief Model hypothesizes six major factors namely, perceived susceptibility, perceived severity, perceived benefits, perceived barriers, self-efficacy and cues to action.

#### **Perceived susceptibility**

Perceived susceptibility is one's opinion of the chances of contracting the illness. Individuals are more likely to change their health behavior only if they feel that they are at risk for example childbearing women who feel that they are free from cervical cancer will not go for screening.

#### **Perceived severity**

Perceived severity is one's opinion of the seriousness and consequences of the condition. One can change their health behavior depending on how they consider the seriousness and consequences of the disease. Childbearing women will only consider cervical cancer screening once they are taught on the disease and consequences during health care visits.

### **Perceived benefits**

Perceived benefits are one's belief in the efficacy of the recommended health behavior in reducing the risk of seriousness of the condition. One is ready to abide by a certain health behavior once they realize its benefit to health for example childbearing women will only go for Visual Inspection with Acetic acid and Cervicogram (VIAC) screening once they become aware of its effectiveness in preventing and treating cervical cancer.

### **Perceived barriers**

Perceived barriers are the perception of cost of adhering to a recommended health behavior if it is likely to benefit in reducing or eliminating the perceived threat. Changing of health behavior is not likely to take place when there is a possibility of physical, social and economic constraints. Childbearing women may not feel like utilizing Visual Inspection with Acetic acid and Cervicogram (VIAC) screening services when they are located at a distance and when cash is needed to access them.

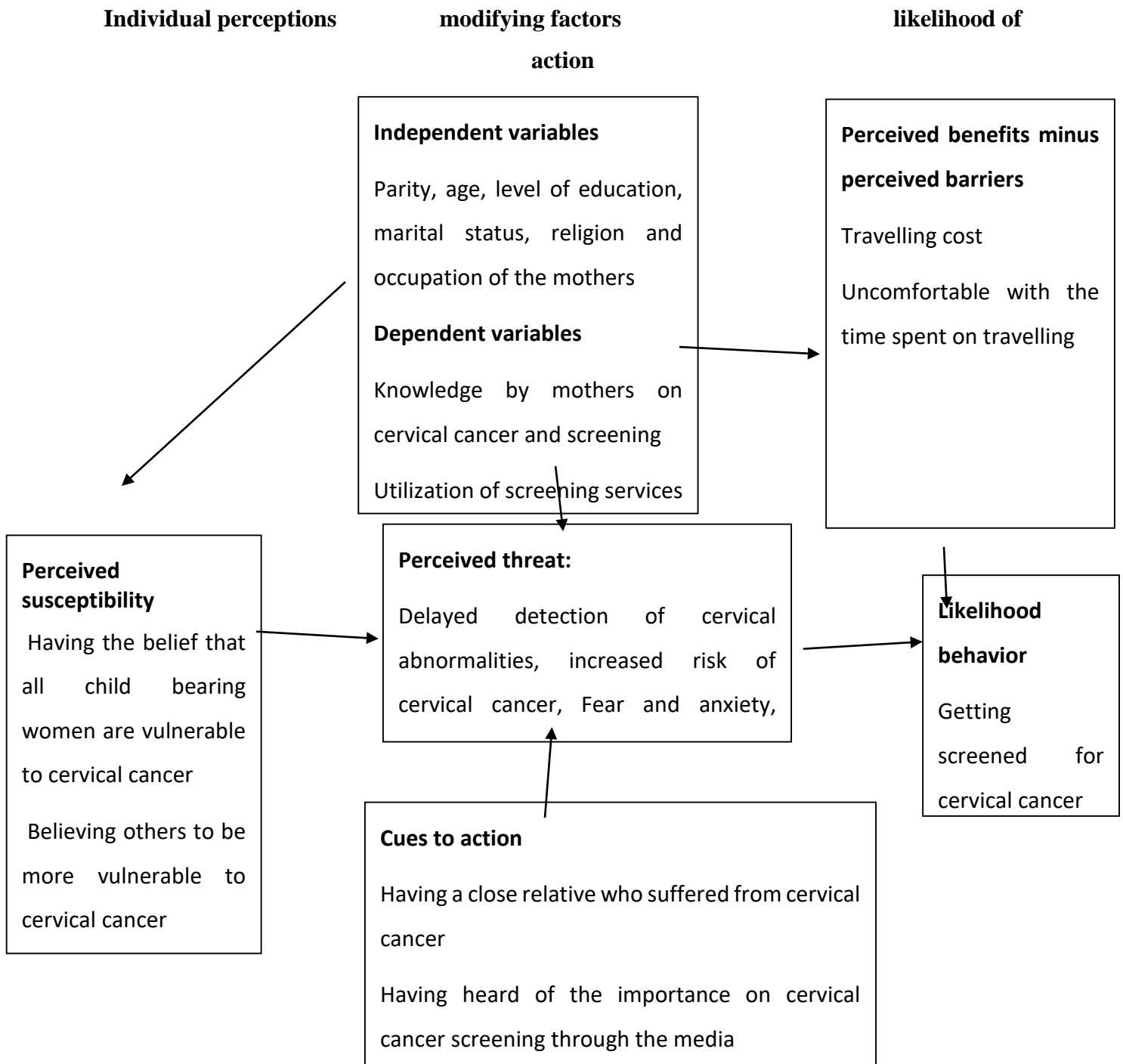
### **Self-efficacy**

It is having low self-esteem in performing the intended behavior. Some childbearing women will hold on to the health education given on Visual Inspection with Acetic acid and Cervicogram (VIAC) and feels confident in going for screening.

### **Cues to action**

Cues to action include external events that encourage one to make a health change for example videos, advertisements and public campaigning programs on the importance of cervical cancer screening and the dangers of cervical cancer. Childbearing women are more likely to pay more attention to external events concerning cervical cancer and Visual Inspection with Acetic acid and Cervicogram (VIAC). In this study the independent demographic variables include marital status, parity, and level of education, occupation, religion, socio economic status age and health care facility location while the independent variable will be Visual Inspection with Acetic acid and Cervicogram uptake.

It is therefore the researcher's assumption that the uptake of Visual Inspection with Acetic acid and Cervicogram (VIAC) by child bearing women is largely dependent on marital status, parity, level of education, occupation, location of health care facility, socio economic status, religion and age. The factors illustrated have an impact on whether a woman will take up Visual Inspection with Acetic acid (VIAC) or not. Therefore, there is need to address these factors so as to increase the screening uptake. When applying the Health Belief Model, the researcher assumed that if equipped with adequate information childbearing women will appreciate the recommended health behavior towards the prevention of cervical cancer thus turning out for screening. They will perceive the consequences of not getting screened for cervical cancer. They will perceive the consequences of not getting screened for their health as more severe compared to the cost benefit of their lives.



**Figure 1.1: Health Belief Model (by Roth et al., 2018)**

### **Application of the Health Belief Model to the study**

**Perceived susceptibility:** there are some childbearing women who believe that they are vulnerable to cervical cancer and it is most likely that such women are ready to receive any health education they receive in as far as cervical cancer is concerned.

**Perceived severity:** some childbearing women take hid of the health knowledge pertaining to cervical cancer which they receive during health care visits because they know that cervical cancer can be complicated resulting in huge fatalities.

**Perceive benefits:** Childbearing women will abide by the health education they receive pertaining to cervical cancer and its screening process for they have come to note that cervical cancer screening is good for their health.

**Perceived barriers:** Some childbearing women do not abide by the health practices taught on cervical cancer because they believe it will cost them of their time and money while some are not comfortable in their genital area being examined. Some women will choose not to go for Visual Inspection with Acetic acid and Cervicogram (VIAC) screening citing financial problems especially in areas where transport is needed to get to the health care facility while some will be worried about the time that will be spent in getting to the facility.

**Self-efficacy:** According to this study, for childbearing women to understand the dangers associated with cervical cancer and the importance of screening they should have the belief that they are capable of getting screened as required for the good of their own health.

**Cues to action:** Some childbearing women may go for Visual Inspection with Acetic acid and Cervicogram (VIAC) screening because they have heard of its benefits for example the prevention and treatment of cervical cancer from health care providers or even through media while some will have a known person who died as a result of the disease.

## **Summary**

The chapter above presented the theoretical framework of the study which guides the study. Literature on the objectives of the study was reviewed and it showed low uptake of Visual Inspection with Acetic acid and Cervicogram. Associated factors among others included knowledge deficit on cervical cancer and its screening procedures, long travelling distances to seek cervical cancer screening services, unbearable transport costs, myths and misconception pertaining to cervical cancer as well as cultural and religious beliefs on cervical cancer. Adequate education on cervical cancer as well as decentralization of cervical cancer screening services will increase the screening

## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

#### **Introduction**

This study was on factors associated with low Visual Inspection with Acetic acid and Cervicogram (VIAC) uptake among women aged 18 to 45 years at Gokwe South District Hospital. This chapter unfolded by addressing the research design, study setting, population of the study, sample size, sampling procedures, inclusion criteria, exclusion criteria, data collection procedure, study instrument, validity and reliability, pilot study, human rights considerations and data analysis

#### **Research Design**

A research design is a “logical sequence that connects empirical data to a study’s initial questions and, ultimately, to its conclusions,” (Yin, 2018). A research design assists to choose the problem appearing in the research like when, what, how much and where, which are important inquiries for a research study (Mukherjee, 2017). Akhtar (2016) pointed out that a research design outlines the procedures for collection, measurement and analysis of data. Researches often fall into the three types of inquiry namely quantitative, qualitative and mixed approaches (Creswell and Creswell, 2018). Quantitative research allows for systematic investigation of phenomena so that quantifiable data can be gathered as well as performing statistical, mathematical, or computational techniques. This study employed descriptive quantitative design which is a non-experimental. The researcher found it good for collection of quantifiable information for statistical analysis of the population sample since it is quick and inexpensive.

#### **Study setting**

The study was carried out at Gokwe South district hospital, a referral centre for 40 rural health clinics and these among others include Mapfungautsi, Cheziya, Njelele, Sasame, Mutange, Donjani as well as Kana mission hospital. Gokwe South District Hospital is in Midlands Province located some 225 km from Harare. The hospital offers various services that include prenatal and postnatal care, testing and treating for Human Immunodeficiency Virus (HIV) as well as cervical cancer screening services.

The hospital has four wards comprising of male ward, female ward, paediatric ward as well as maternity ward. There are also departments which include the Operating Theatre, X-ray, Physiotherapy, Outpatients and Visual Inspection with Acetic acid and Cervicogram departments. Most residence of Gokwe South District survive on cotton farming. However, most routes to the town are characterized by poor road networks.

### **Population of the study**

Bell et al. (2019) posited that the population of a study is any component that fits the criteria for an investigation by meeting the necessary models as the premise of consideration. The population of the study was considered as one of the fundamental steps in the study design. In other words, researchers have to carefully and completely define the population and describe the elements of the study before sampling. In this study all females of child bearing and aged between 18 to 45 years within the catchment area of Gokwe South District were targeted.

### **Sample Size**

A sample is a specific group of individuals that the researcher collected data from than using the whole population as it would be unrealistic (McCombes (2019). A sample size of 150 was drawn from females between 18 and 45 years, who accesses health services at Gokwe South District hospital. A Resource-Based Approach was used to determine the sample size. McCombes (2019) also emphasised that the larger the sample size the more accurate the results of the study becomes.

### **Sampling procedure**

Singh and Masuku (2014) referred to sampling as a method for selecting individuals on which information is to be gathered. The procedure details how the researcher selected a population from a sample which is a smaller portion but representative of a population. This study adopted convenience sampling which is a non-probability sampling method. Convenience sampling is the selection of participants because they are often readily and easily available (Taherdoost 2016).



One significant advantage of convenience sampling is its convenience and speed of data collection. Researchers can quickly gather information without much effort or resources, making it a cost-effective method, especially when time and budget constraints are present (Breen, 2014). Additionally, convenience sampling can be beneficial for conducting preliminary research or pilot studies, providing valuable insights that may guide future research designs (Morgan, 2023).

However, convenience sampling has several disadvantages. One major limitation is its potential for bias, as participants selected through convenience sampling may not be representative of the broader population, leading to inaccurate conclusions and generalizations (Breen, 2014). This lack of representativeness can threaten the external validity of the study and compromise the reliability of the findings (Morgan, 2023). Furthermore, the reliance on easily accessible participants may result in a homogenous sample, limiting the diversity and variability of responses in the research study.

### **Inclusion criteria**

Patino and Ferreira, (2018) argued that inclusion criteria are the key features of the target population that the investigators will use to answer their research questions. The study inclusion criteria include women aged between 18 to 45 years who had never had a Visual Inspection with Acetic acid and Cervicogram (VIAC) screening before and were residents of the Gokwe South District. Participants were supposed to be mentally and physically stable to participate in the Visual Inspection with Acetic acid and Cervicogram (VIAC) screening process and willing to provide informed consent. Additionally, women were supposed to be proficient in either English or Shona so as to understand the study procedures and questions.

### **Exclusion criteria**

Patino and Ferreira (2018), further cited that exclusion criteria are features of the potential study participants who meet the inclusion criteria but present with additional characteristics that could interfere with the success of the study or increase their risk for an unfavourable outcome. The exclusion criteria for the study included the following: Women who had undergone a hysterectomy or other procedures that would render them ineligible for Visual Inspection with Acetic acid and Cervicogram (VIAC) screening.

Women with a history of cervical cancer or precancerous lesions as they could have been receiving different or more frequent screening tests. Pregnant women as pregnancy affects the accuracy of Visual Inspection with Acetic acid and Cervicogram (VIAC) screening results. Women who were unable to provide informed consent or participate in the study due to cognitive or communication limitations. Women who were not residents of Gokwe South District, as the study was specifically focusing on this population. Women who have previously participated in a similar study or intervention aimed at increasing Visual Inspection with Acetic acid and Cervicogram (VIAC) uptake, as their prior experience had the possibility of biasing their responses. Women with a known allergy or sensitivity to acetic acid or other components of the Visual Inspection with Acetic acid and Cervicogram (VIAC) procedure. Lastly, women who were currently participating in another clinical trial or research study that could confound the results of the current study will also be excluded.

### **Data collecting procedure**

According to Bhandari P (2020), data collection method involves a systematic process of gathering observations or measurements. Data collection methods are important, because how the information collected, is used and what explanations it can generate are determined by the methodology and analytical approach applied by the researcher (Paradis, et.al. 2016). Data relevant to the study was collected from a sample of one hundred and fifty (150) females between 18 to 45 years through the use of questionnaires which were written in English or local language. The questionnaire had an introduction section where the researcher introduced herself and the study including the confidentiality issues. The second section collected demographic data about the respondents without revealing their identities. The third section had tables in which respondents were asked on factors associated with low Visual Inspection with Acetic acid and Cervicogram (VIAC) uptake among women.

The questions tackled issues on attitudes and beliefs towards cervical cancer and Visual Inspection with Acetic acid and Cervicogram uptake, previous experiences or perceptions of Visual Inspection with Acetic acid and Cervicogram (screening, accessibility and availability of Visual Inspection with Acetic acid and Cervicogram services in Gokwe South District, socio-economic factors influencing Visual Inspection with Acetic acid and Cervicogram uptake, knowledge on Cervical cancer and Visual Inspection with Acetic acid and Cervicogram ,awareness of cervical cancer and Visual Inspection with Acetic acid and Cervicogram,barriers to Visual Inspection with Acetic acid and Cervicogram uptake, health-seeking behaviours related to cervical cancer screening and sources of information on Visual Inspection with Acetic acid and Cervicogram (VIAC) and cervical cancer. The researcher distributed questionnaires to participants at the Outpatients Department, Family and Child Health Departments. Upon explaining the purpose of the research to participants, each participant completed the self-administered questionnaire voluntarily. The researcher then collected the completed questionnaires once the respondents were through for 3 days.

### **Study instrument**

Dudovisky, (2018) defined a questionnaire as a printed document that contains instructions and statements that are compiled to obtain answers from respondents. The study opted for questionnaires due to their easy of data collection, low associated costs and high levels of objectivity compared to many alternatives of primary data collection, (Creswell and Creswell, 2018). The questionnaires were divided into two parts, the section on demographic data and that on factors associated with low Visual Inspection with Acetic acid and Cervicogram (VIAC) uptake.

The part on factors associated with low uptake of Visual Inspection with Acetic acid and Cervicogram was then categorized into attitudes and beliefs towards cervical cancer and Visual Inspection with Acetic acid and Cervicogram uptake, previous experiences or perceptions of Visual Inspection with Acetic acid and Cervicogram screening, accessibility and availability of Visual Inspection with Acetic acid and Cervicogram services in Gokwe South District, socio-economic factors influencing Visual Inspection with Acetic acid and Cervicogram uptake, knowledge on Cervical cancer and Visual Inspection with Acetic acid and Cervicogram, awareness of cervical cancer and Visual Inspection with Acetic acid and Cervicogram barriers to Visual Inspection with Acetic acid and Cervicogram uptake, health-seeking behaviours related to cervical cancer screening and sources of information on Visual Inspection with Acetic acid and Cervicogram and cervical cancer. The questionnaires comprised of closed ended questions only. This is because closed ended questions are quick and easy to answer, improve consistency of responses, easy to compare with other respondents and above all they are easy, quick and less costly to analyse.

### **Validity and Reliability**

Validity of a study can be explained as an extent at which requirements of scientific research method were followed during the process of generating research findings (Dudovskiy, 2018). The questionnaire as the data collecting instrument was analysed by expert lecturers familiar with the research subject from Bindura University of Science Education, Health Science department to ensure the reliability, clarity and comprehensiveness and come to some level of agreement as to which items should be included in the questionnaire so that the research questions were answered. Reliability of the instrument was assessed using a pilot test or study which was conducted using a small sample of participants.

### **Pilot study**

A pilot test is a small-scale trial run of a study or research project conducted before the actual implementation takes place. According to Creswell and Creswell (2018), a pilot test is essential to ensure the feasibility and validity of a research project by allowing researchers to refine their processes and methods before collecting data on a larger scale. In this study, pilot study was conducted on 10 subjects at Gokwe South Hospital. These met the inclusion criteria but were not be part of the main study. This test was conducted to identify problems and issues with the research question and necessary adjustments were affected before giving the questionnaire to the respondents.

### **Human rights considerations**

Ethics in research refers to the rules and guidelines that defines the conduct of researchers with the aim of protecting the dignity of the subjects and to publish well the information that is researched, (Akaranga and Makau, 2016). The research proposal was submitted to the Bindura University of Science Education Ethics Committee for approval. Permission to carry out the study was sought from the relevant authorities that included the Provincial Medical Director, District Medical Officer, as well as the Matron and Sisters in Charge of departments at Gokwe South District Hospital where the participants of the study were identified. Verbal consent was obtained after the provision of verbal information pertaining the purpose of the study. The researcher clarified on the issues of voluntary participation or withdrawal from the study to the participants. The study participants were treated with respect, fairness and dignity. Confidentiality, privacy as well as anonymity was guaranteed by issuance of self- administered questionnaires so that no results were associated with any names.

### **Data analysis**

Smith and Johnson (2020) defines data analysis as the process of interpreting, cleaning, transforming, and organizing data in order to discover useful information, draw conclusions, and make informed decisions. It involves utilizing various statistical methods, technologies, and tools to extract meaningful insights from datasets.

The authors aver that data analysis plays a crucial role in aiding researchers, businesses, and organizations in understanding trends, patterns, and correlations within the data, as well as in predicting future outcomes. The process of data analysis used analytical and logical reasoning to gain information from the data. In this study, results were tabulated, presented on bar graphs, pie charts, tables and percentiles for easy analysis and interpretation. Microsoft Excel was used for data analysis.

### **Summary**

This chapter presented the research design which was a descriptive case study. The researcher targeted the population from Gokwe South District. A convenience sampling method used. Data was collected through questionnaires. Validity and reliability were done through a pilot testing and ethical principles were observed which include the signing of consent forms. The next chapter the researcher will look at data presentation, analysis and discussion.

## **CHAPTER 4**

### **DATA ANALYSIS, PRESENTATION AND INTERPRETATION**

#### **Introduction**

This chapter focuses on data presentation. The data was collected by means of self-administered questionnaire designed specifically for the study which was meant to answer the research question, what factors are associated with low Visual Inspection with Acetic acid and Cervicogram (VIAC) uptake among women of age group 18 to 45 at Gokwe South District Hospital which is in Gokwe South District. Findings of the study are presented, analyzed and interpreted guided by the research question and objective of the study.

## Section A

### Demographic Characteristics

**Figure 4.1: Participants` area of residence.**

n=150

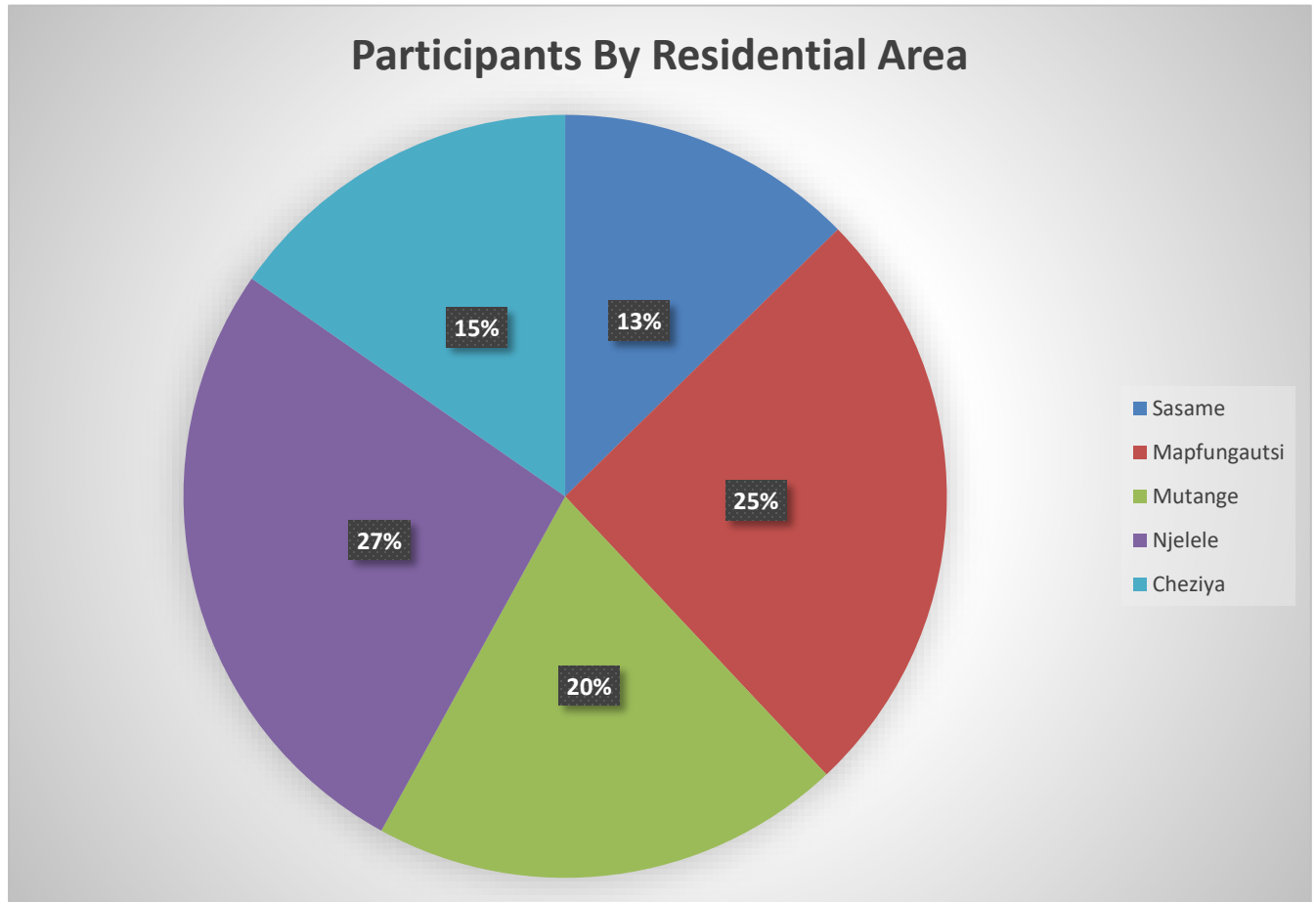


Figure 4.1: shows respondents by their residential areas. Njelele residential area had the majority of participants, 40 (27%) followed by Mapfungautsi residential area with a total of 38 (25%). Cheziya residential area recorded a total number of 30 (20%) while 23 (15%) of the respondents stayed in Mutange village. Sasame village was last with a total number of 19 (13%) respondents.



**Table 4.1 Demographic Data**

<b>Variable</b>	<b>Respondents</b>	<b>Frequency (n)</b>	<b>Percentage (%)</b>
<b>Age</b>	18 to 25	41	27
	26 to 30	30	20
	31 to 35	35	23
	36 to 40	28	19
	41 to 45	16	11
	Total	150	100
<b>Number of children</b>	One	17	11
	Two	33	22
	Three	48	32
	Four	52	35
	Total	150	100
<b>Marital status</b>	Single	33	22
	Married	40	27
	Widowed	30	20
	Divorced	47	31
	Total	150	100
<b>Level of education</b>	Primary	54	36
	Secondary	43	29
	Tertiary	4	3
	Not educated	49	32
	Total	150	100
<b>Religion</b>	Christianity	57	38
	Muslim	5	3
	Traditionalist	87	58
	Hinduism	1	1
	Total	150	100
<b>Occupation</b>	Formal	31	20
	Self – employed	40	27
	Housewife	37	25
	Not employed	42	28
	Total	150	100

Most of the participants were within the age ranges 18 to 25 years as they numbered 41 (27%). The age ranges 26 to 30 years recorded participants numbering 30 (20%). Thirty-five (23%) of the participants belonged to the age ranges 31 to 35 years. The age ranges 36 to 40 years had a total number of 28 (19%) participants while the minority of the participants 16 (11%) were from the age ranges 41 to 45 years. On the number of children, 17 (11%) were the minority having one child, followed by 33 (22%) who had two children. Forty-eight (22%) had three children while the majority 52 (35%) had four children. The minority of the participants 33 (22%) were single, those married constituted 40 (27%). The widowed were 30 (20%) while the majority, numbering 47 (37%) were divorced. On level of education, the majority, constituting 54 (36%) completed primary education, 43 (29%) completed secondary education with the minority numbering 4 (3%) completed tertiary education. Those with no formal education were 49 (32%). On religion, Traditionalist had the majority of participants who were 87 (58%) followed by Christianity with a total number of 57 (38%) participants. Muslim had a total number of 5 (3%) and lastly was Hinduism with only 1 (1%). On occupational status, those formally employed were the minority numbering 31(20%), the self- employed were 40 (27%), housewives were 37 (25%). The majority 42 (28%) were not employed.

## Section B

### Factors associated with low uptake of Visual Inspection with Acetic acid and Cervicogram (VIAC).

**Table 4.2: Attitudes and beliefs towards Visual Inspection with Acetic acid and Cervicogram (VIAC).**

n=150

Description	Frequency (n)	Percentage (%)
Embarrassment as a result of societal perception in regards to cervical cancer.	40	27
Concerns regarding privacy and confidentiality.	7	5
Culture does not permit discussion of reproductive health issues.	29	19
Culture does not allow to undergo invasive procedures.	21	14
Insensitive and judgmental behavior by healthcare workers.	3	2
Negative attitude and lack of empathy by healthcare workers.	5	3
Being diagnosed with cervical will be an end to life for it cannot be cured	45	30
Total	150	100

Table 4.2 shows participants` attitudes and beliefs towards Visual Inspection with Acetic acid and Cervicogram (VIAC) whereby the majority 45 (30%) indicated that being diagnosed with cervical cancer means an end to life for they believe that it cannot be cured. Forty (27%) and 29 (19%) indicated that they were embarrassed by the societal perception in regards to cervical cancer and that their culture does not permit the discussion of reproductive health issues respectively. participants who`s culture did not permit them to undergo invasive procedures numbered 21 (14%). The least of the participants, 7 (5%), 5 (3%) and 3 (2%) indicated concerns regarding privacy and confidentiality, negative attitudes and lack of empathy by healthcare workers as well as insensitive and judgmental behavior by healthcare workers respectively.

**Figure 4.2: Perception of Visual Inspection with Acetic acid and Cervicogram (VIAC) uptake.**

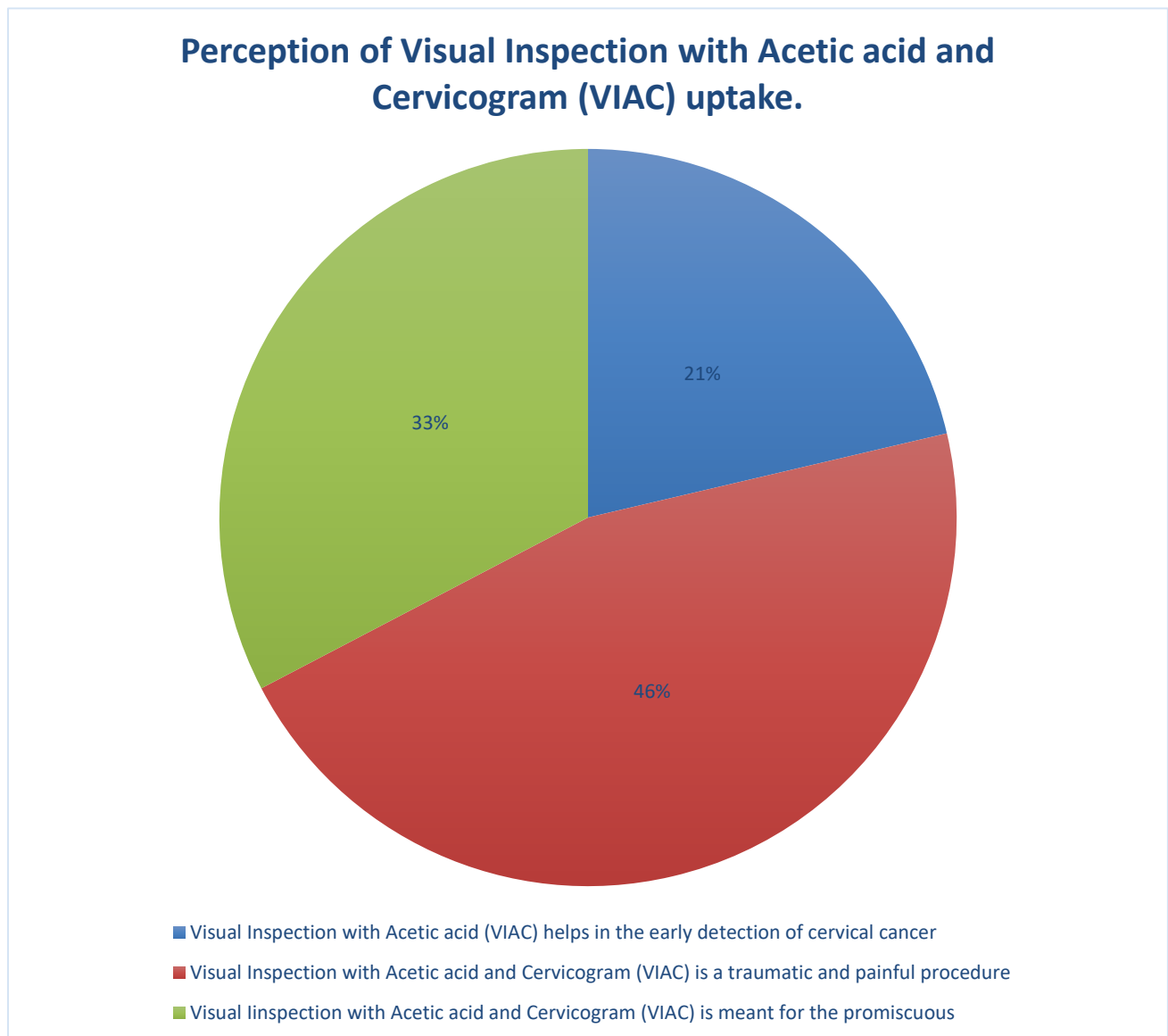


Figure 4.2 Indicates participants` perception of Visual Inspection with Acetic acid and Cervicogram (VIAC) uptake. The majority of the participants numbering 69 (46%) were of the perception that Visual Inspection with Acetic acid and Cervicogram (VIAC) is a traumatic and painful procedure while 49 (33%) indicated that the same procedure is meant for the promiscuous. The least of the participants, 32 (21%) knew that Visual Inspection with Acetic acid and Cervicogram (VIAC) helps in the early detection of cervical cancer.

**Figure 4.3: Accessibility and availability of Visual Inspection with Acetic acid and Cervicogram (VIAC) Services.**

n=150

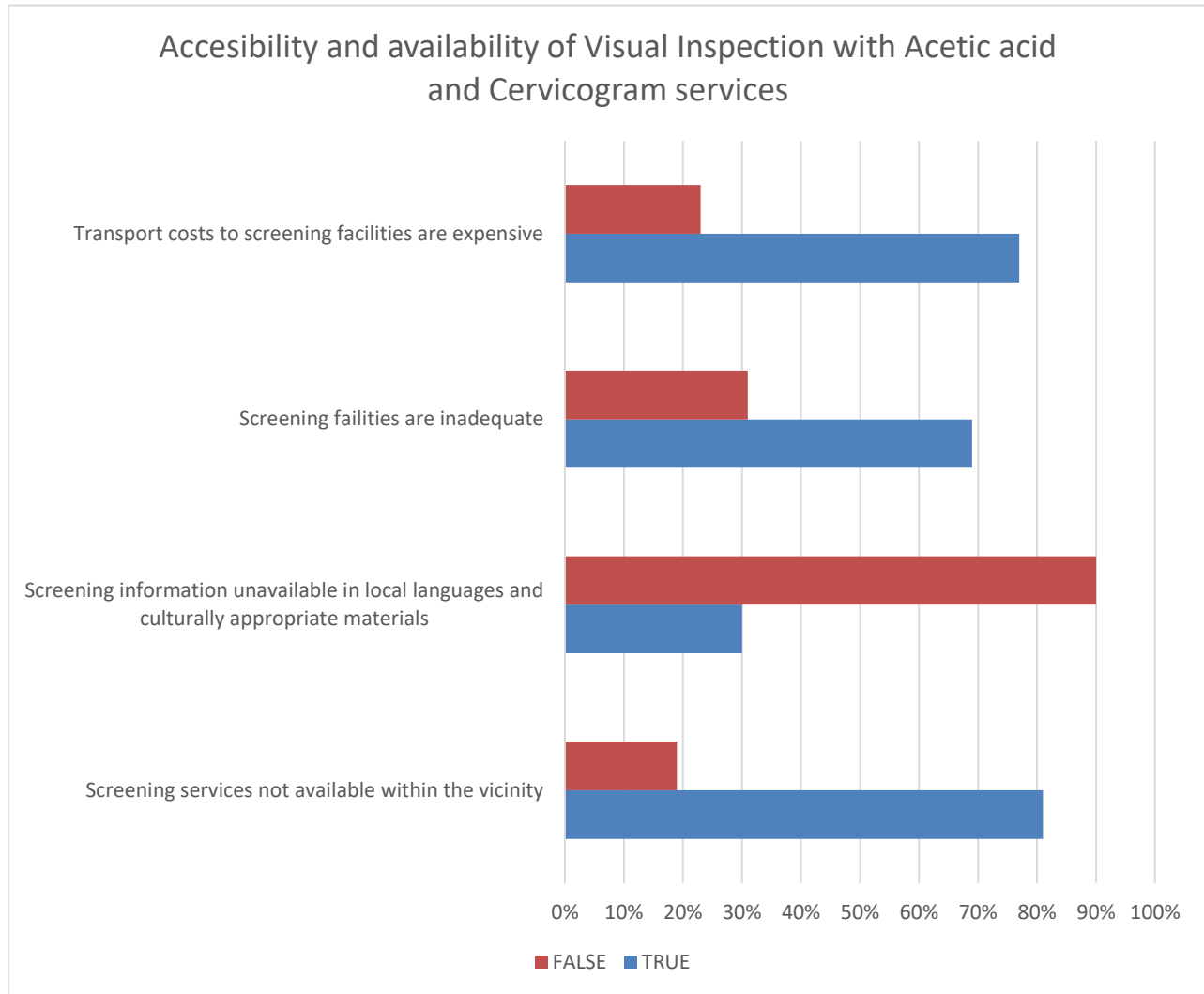


Figure 4.3 shows participants' response in terms of the accessibility and availability of Visual Inspection with Acetic acid and Cervicogram Services. One hundred and twenty-two (81%) and 28 (19%) indicated true and false respectively to Visual Inspection with Acetic acid and Cervicogram (VIAC) services being unavailable within the vicinity.

Participants who indicated true and false to the unavailability and inaccessibility of Visual Inspection with Acetic acid and Cervicogram (VIAC) information in local languages and culturally appropriate materials were 15 (30%) and 135 (90%) respectively. One hundred and four (69%) indicated true to inadequate availability of Visual Inspection with Acetic acid and Cervicogram (VIAC) screening services against 46 (32%) who indicated false to the same description. Expensive transport costs to screening facilities was indicated to be true and false by 115 (17%) and 35 (23) participants respectively.

## Socio-economic factors influencing Visual Inspection with Acetic acid and Cervicogram (VIAC) uptake

**Figure 4.4: Costs of Visual Inspection with Acetic acid and Cervicogram (VIAC)**

n=150

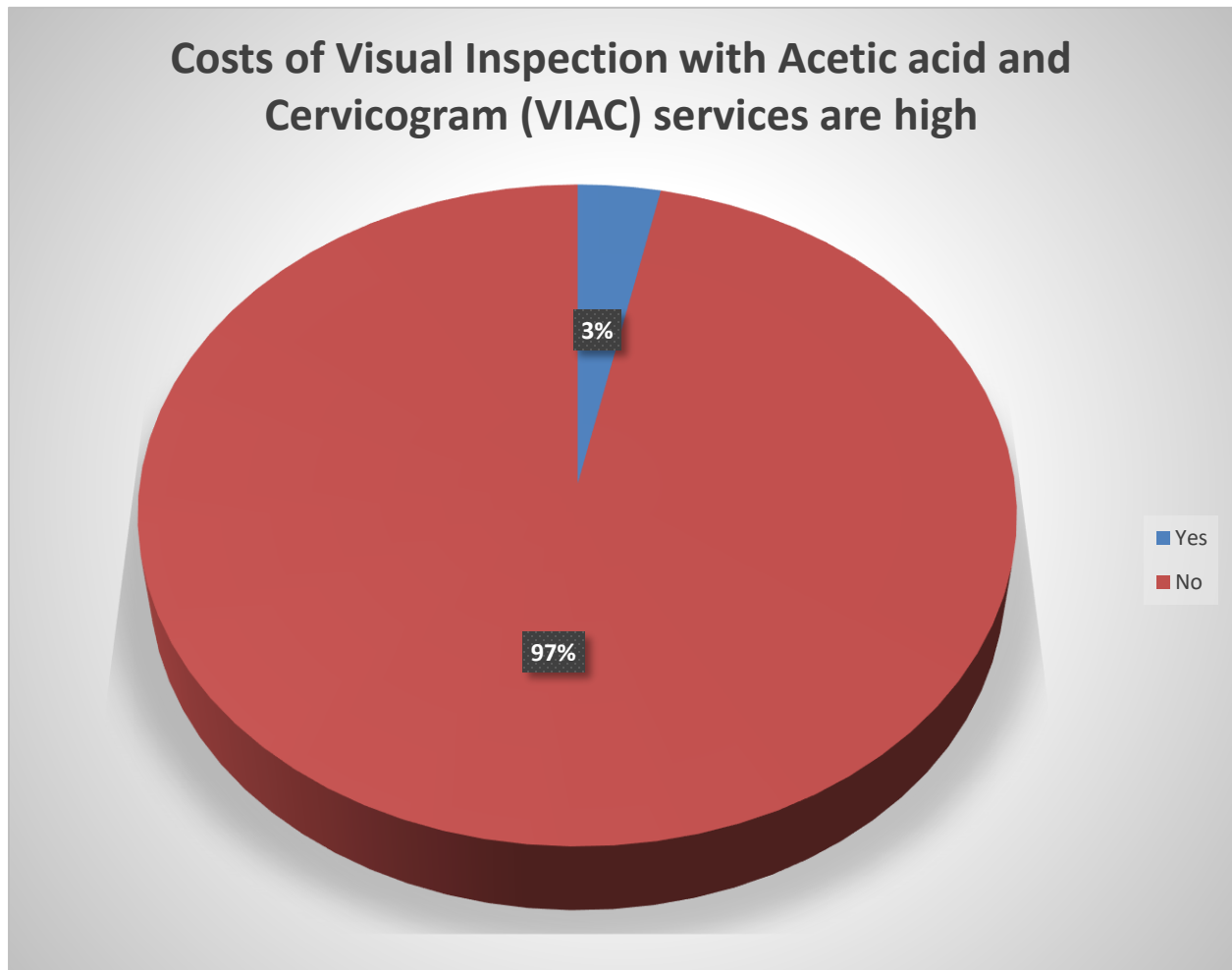


Figure 4.4 indicates the participants' views pertaining to the costs of Visual Inspection with Acetic acid and Cervicogram (VIAC). The majority, 145 (97%) did not agree with the description that screening services are expensive hence they indicated 'no' while 5 (3%) agreed that costs to screening services are high and as a result they indicated 'yes'.

**Figure 4.5 Costs of visits when one is diagnosed positive to cervical cancer**

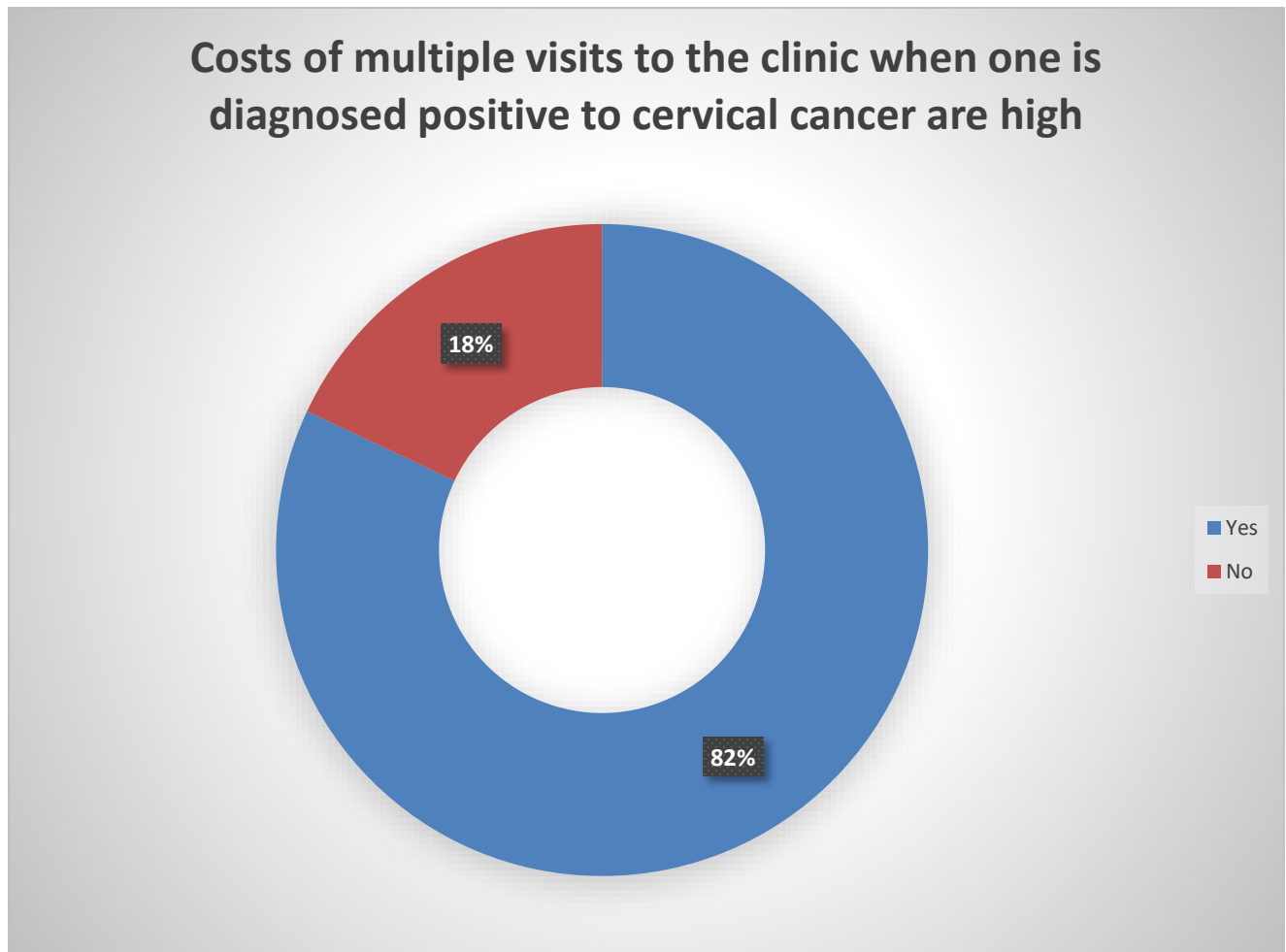


Figure 4.5 shows participants' views pertaining the costs of multiple visits to the clinic once one is diagnosed positive to cervical cancer. One hundred and twenty-three (82%) agreed that multiple visits to the clinic when diagnosed with cervical cancer are expensive while 27 (18) did not agree.



**Table 4.3: Awareness and knowledge on cervical cancer and its prevention.****n=150**

Description	True		False		Total
	Frequency (n)	%	Frequency (n)		
Cervical cancer is a malignant tumor that develops on the cervix	41	27	109	73	150
Having multiple sexual partners predisposes to cervical cancer	61	41	89	59	150
Cervical cancer can be cured by holy oil from religious shrines	84	56	66	44	150
Cervical cancer can be cured if detected early	88	59	62	41	150
Unaware of Visual Inspection with Acetic acid and Cervicogram (VIAC) screening facilities	28	19	122	81	150

Table 4.4 reflects participants` awareness and knowledge on cervical cancer and its prevention. The majority 109 (73%) did not agree that cervical cancer is a malignant tumor that develops on the cervix while 41 (27%) knew that it is true. Sixty-one (41%) and 89 (59%) indicated true and false respectively to having multiple sexual partners being a predisposing factor to cervical cancer. Concerning the cure to cervical cancer, the majority, and 84 (56%) knew it to be cured by the use of holy oil from religious shrines while 66 (44%) new that it is false. Eighty-eight (59%) and 62 (41%) indicated true and false respectively to early detection being helpful in the curing of cervical cancer. participants who indicated to be unaware of Visual Inspection with Acetic acid and Cervicogram (VIAC) screening facilities were 28 (19%) against 122 (81%) who indicated false to the same description.

**Figure 4.6: Health seeking behavior to cervical cancer and sources of information.**

**n=150**

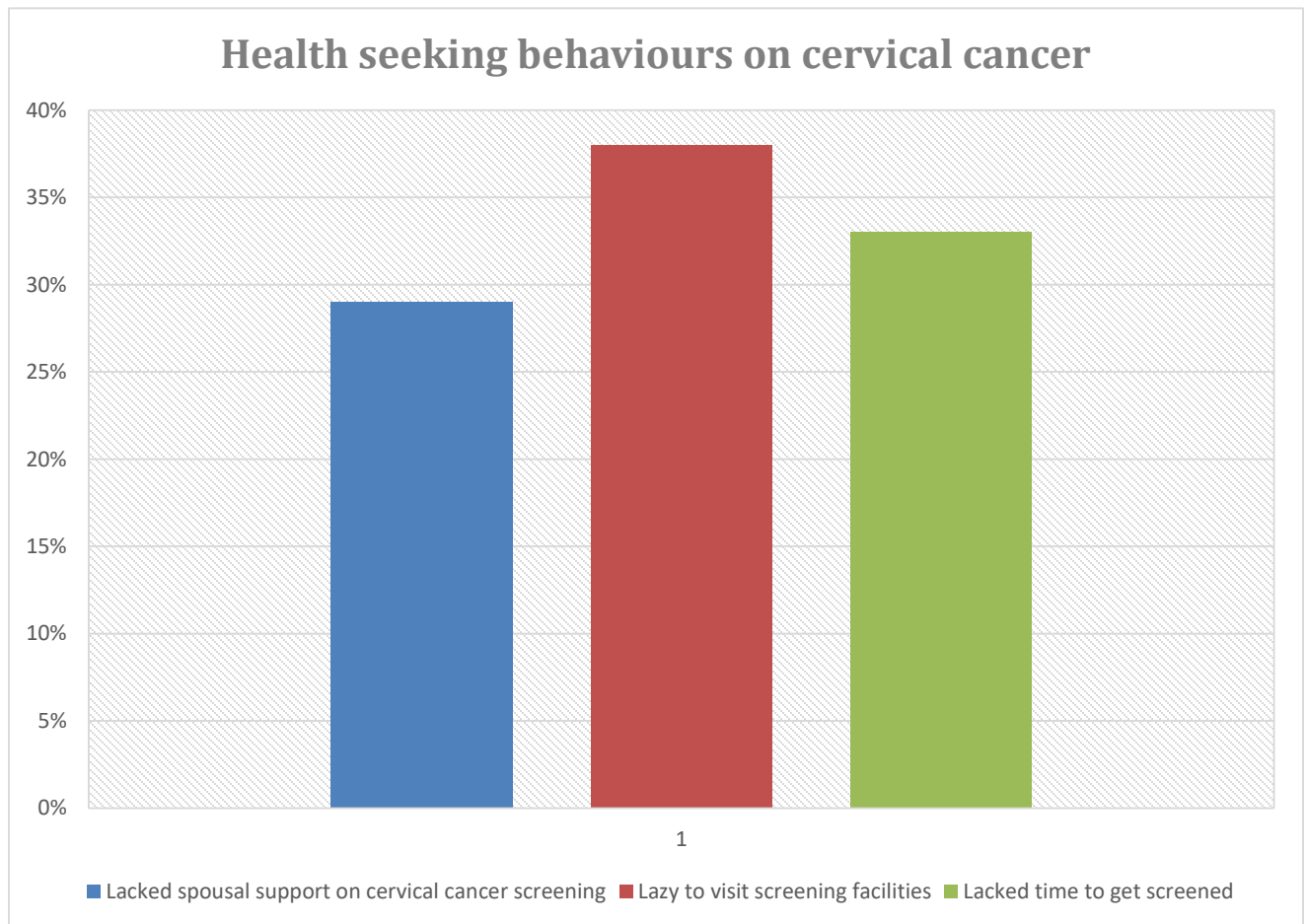


Figure 4.6 shows participants` health seeking behaviors whereby the majority of the respondents, 57 (38%) indicated to be lazy in visiting screening facilities. Fifty (33%) indicated lack of time to go and get screened and lastly 43 (29%) lacked spousal support.

## Barriers to Visual Inspection with Acetic acid and Cervicogram (VIAC) uptake

Figure 4.7: Significant geographical barriers

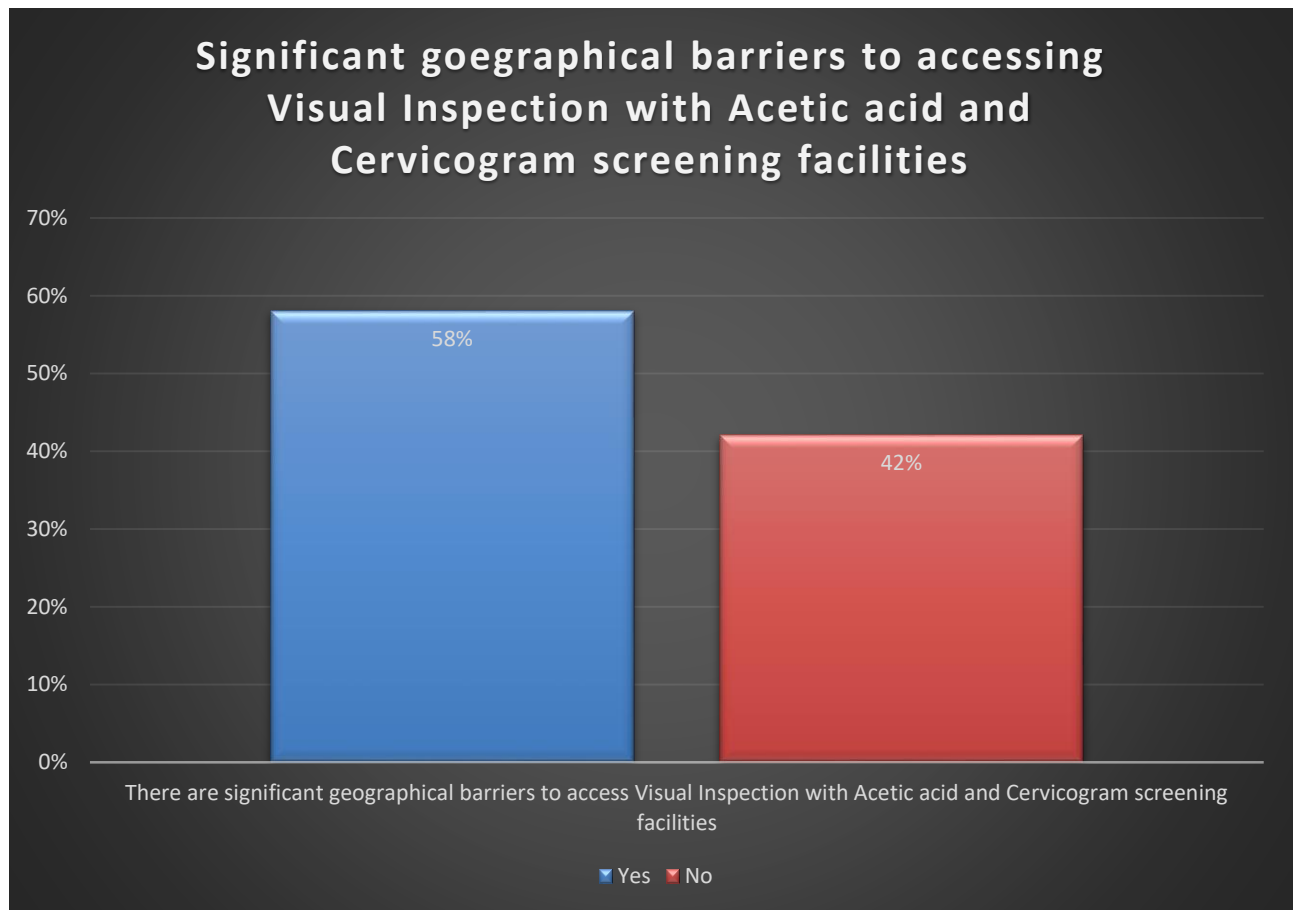


Figure 4.7 indicates participants' barriers to accessing Visual Inspection with Acetic acid and Cervicogram (VIAC) screening services. The majority of the participants, 87 (58) agreed to the geographical set up of their areas of residence as being a barrier to accessing Visual Inspection with Acetic acid and Cervicogram (VIAC) services while 63 (43%) disagreed with the same description.

**Figure 4.8: location of Visual Inspection with Acetic acid and Cardiogram (VIAC) screening facilities in urban areas**

**n=150**

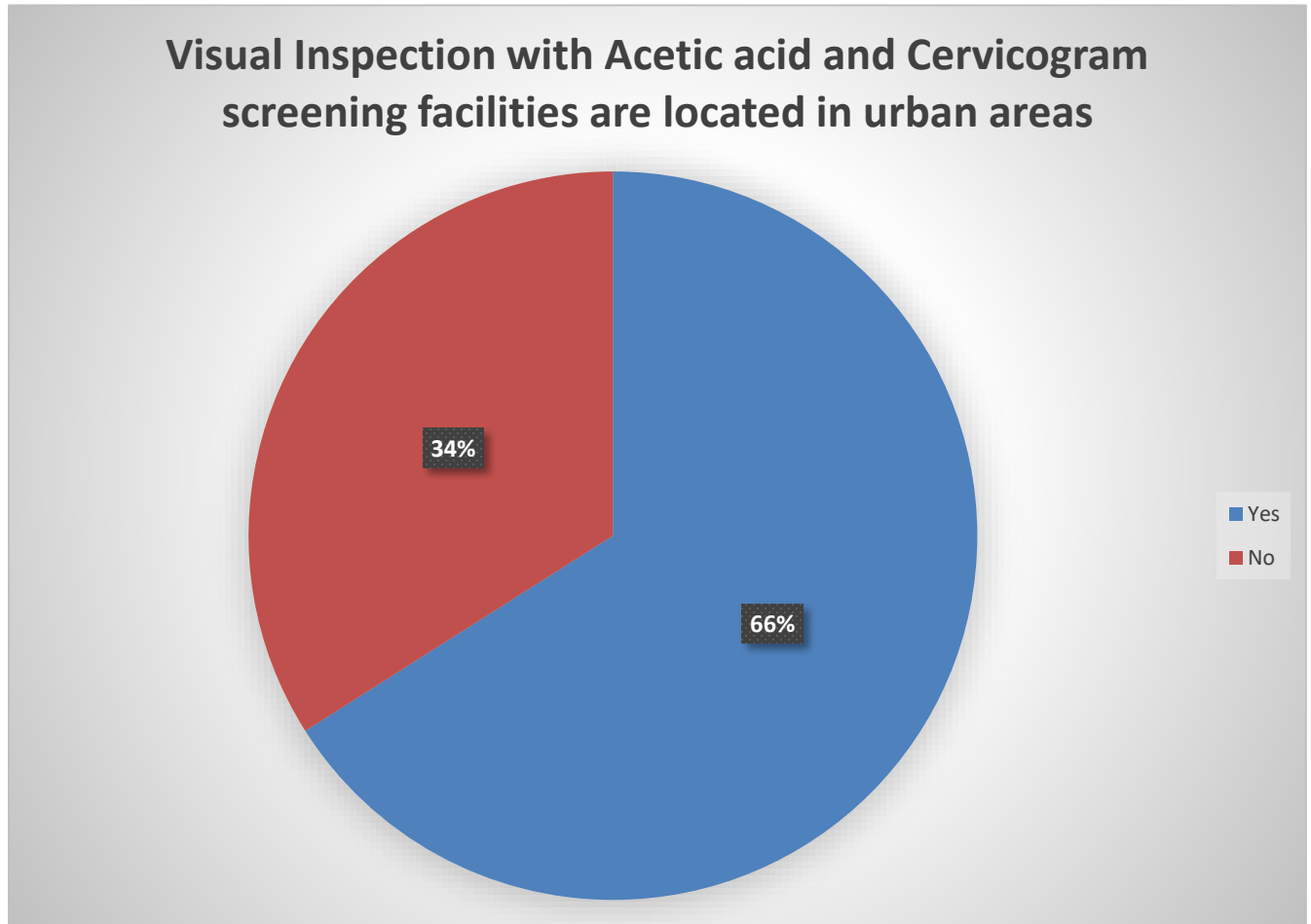


Figure 4.8 illustrates the participants response towards the location of Visual Inspection with Acetic acid and Cervicogram (VIAC) services in urban areas as being a significant barrier to accessing them. The majority of the participants, 99 (66%) agreed that cervical cancer screening facilities are largely concentrated in urban areas with only 51 (34) disagreeing to the same fact.

#### Summary

In this chapter, data was analyzed and interpreted. It was then presented in tables, graphs and charts.

## **CHAPTER 5**

### **DISCUSSION OF RESULTS, SUMMARY, CONCLUSIONS, LIMITATIONS, IMPLICATIONS AND RECOMMENDATIONS.**

#### **Introduction**

This chapter discusses and summarizes the findings of the study. The implications in relation to nursing practice are highlighted. Conclusions will be drawn based on results and in relation to study objectives set in chapter one. The study further proposes recommendations for considerations and the study limitations will be highlighted.

#### **Summary**

The Health Belief Model was used assuming that with favorable factors put in place, women of child bearing age will appreciate and uptake Visual Inspection with Acetic acid and Cervicogram (VIAC). The purpose of the study was to assess factors associated with low Visual Inspection with Acetic acid and Cervicogram uptake among women aged 18 to 45 years at Gokwe South District Hospital.

The study answered the following question:

1. What factors are associated with low Visual Inspection with Acetic acid and Cervicogram (VIAC) uptake among women of age group 18 to 45 years at Gokwe South District Hospital?

The study was carried out at Gokwe South District Hospital. A descriptive study which is a non-experimental research study design was utilized. The data was collected from women of child bearing aged between 18 to 45 years. From the data collected, it was noted that the majority of the participants, 23% were from Mapfungautsi location while the least, 3% were from Nyaje. It was also noted that all participants understood both English and Shona. The majority of the participants, 27% were within age ranges 18 to 25 while the least, 11% belonged to the age ranges 41 to 45. Most of the participants, 35% had a total number of four children while the least, 11% had one child. On marital status, 27% of the participants were married while 22%, 20%, and 31% were single, widowed and divorced respectively.

(Twenty nine) 29% and 3% attained secondary and tertiary education respectively while the majority, 36% and 32% attained primary education and no formal education respectively. The majority, 58% were traditionalists while only 1% was a Hindu. Study findings also indicated that only 20% of the participants were formally employed while 27%, 25% and 28% were self-employed, housewives and not employed respectively.

#### **Summary of chapter 4 findings.**

When it comes to factors linked to low participation in Visual Inspection with Acetic acid and Cervicogram (VIAC) screening, individuals expressed a range of opinions and beliefs about the screening process, highlighting diverse attitudes and perspectives. The majority of the participants, 30% were of the belief that being diagnosed with cervical cancer is an end to life for it cannot be cured while the minority, 2% indicated that they could not be screened due the insensitive and judgmental behavior by healthcare workers. On perception of Visual Inspection with Acetic acid and Cervicogram (VIAC) uptake, most of the respondents, 46% perceived that the screening procedure as traumatic and painful while 33% perceived it to be meant for the promiscuous only. A smaller number of the participants, 21% knew that Visual Inspection with Acetic acid and Cervicogram (VIAC) helps in the early detection of cervical cancer. On the issue of accessibility and availability of Visual Inspection with Acetic acid and Cervicogram (VIAC), 81% indicated it to be true that the screening services are not locally available within their vicinity with only 19% disagreeing. A large group of participants 90% were in disagreement with the description that screening information is not available in local languages and culturally appropriate material, while 30% opposed it. Regarding the unavailability of screening facilities, 69% respondents said it was a problem, while 31% said it was not. When it came to transportation costs to reach screening facilities, 77 participants found them too expensive while 23% said they were manageable. On socio-economic factors influencing Visual Inspection with acetic acid and Cervicogram (VIAC) uptake, only 3% respondents agreed that the screening services are expensive while the majority 97% disagreed. Eight-two (82%) agreed that multiple visits to the clinic once one is diagnosed positive to cervical cancer are expensive while 18% disagreed.

Respondents expressed a range of opinions and beliefs about cervical cancer and how to prevent it, showing diverse levels of awareness and understanding. Only 27% of the participants knew that cervical cancer is a malignant tumor of the cervix with the majority, 73% indicating false to the description. Nineteen (19%) indicated to be unaware of Visual Inspection with Acetic acid and Cervicogram (VIAC) screening facilities while the majority, eighty-one (81%) were aware of the facilities. On health seeking behaviors to cervical cancer, laziness and lack of time to visit screening facilities had 57 (38%) and 33% participants respectively. Regarding geographical barriers to Visual Inspection with Acetic acid and Cervicogram (VIAC) uptake, 58% indicated that they exist while 63 (42%) disagreed. The location of screening facilities in urban areas was indicated to be a barrier by 66%.

## **Discussion of Findings**

### **Section A: Demographic Findings**

The demographic data showed that majority of the participants were from Njelele residential area whilst a smaller number of participants were from Sasame village. The residential areas with majority of the respondents are located within close proximity to the health facility offering Visual Inspection with Acetic acid and Cervicogram (VIAC) services, an indication that proximity to the health care facility is associated with a high turnout towards cervical cancer screening. The data findings are contrary to literature by Tawiah, et al., (2022) who indicated that only 24, 6% of the studied population in Asokore-Mapong had been screened regardless of the proximity to the health facility providing free cervical cancer screening. Sasame is a village located far away from the healthcare facilities and where there are poor road networks and bridges. This concurs with Hakim, et al., (2019) who discovered that living far from healthcare facilities and residing in hard-to-reach areas limit women's access to Visual Inspection with Acetic acid and Cervicogram (VIAC) services. The barrier of distance was also similar to findings by the World Health Organization (WHO) (2019) which indicated that around 75% of the global population lacks access to essential health care services, mainly due to geographical and socio-economic barriers.

On marital status, only a smaller proportion of the participants were married with the majority being single, widowed and divorced respectively. This low turnout for Visual Inspection with Acetic acid and Cervicogram (VIAC) screening amongst the married women can be attributed to negative interference by spouses. This is similar to the discovery in Nigeria by Santika (2019) who cited that, cervical cancer screening coverage is at only 8, 7% which is extremely poor and with reasons among others being lack of spousal support. The educational statuses of the respondents indicated that the minority attended secondary and tertiary education compared to the majority who attended primary education and uneducated respectively. The poor level of education poses a negative impact in understanding cervical cancer as well as the procedure of Visual Inspection with Acetic acid and Cervicogram (VIAC). This is in agreement with Maree and Band (2018) who discovered that lack of knowledge was associated with low cervical cancer screening uptake in Malawi. On occupation, a few of the participants were formally employed with the rest being self-employed, housewives or unemployed. The data findings are in accordance with the literature by Katzki, et al., (2018) who indicated that high cost of Visual Inspection with Acetic acid and Cervicogram (VIAC) services, transportation expenses, and the need for multiple visits act as deterrents for women, especially from low-income backgrounds, to undergo screening.

## **Section B: Factors associated with low uptake of Visual Inspection with Acetic acid and Cervicogram (VIAC)**

### **Attitudes and beliefs towards Visual Inspection with Acetic acid and Cervicogram (VIAC)**

Regarding attitudes and beliefs towards Visual Inspection with Acetic acid and Cervicogram (VIAC) uptake, less than half of the participants feared that being diagnosed with cervical cancer means an end to life for it cannot be cured. The researcher's findings are consistent with Kamanga, et al., (2023) who discovered that there was some misconception among other women who believed that being diagnosed with cervical cancer will be an end to their lives for it cannot be cured. To add on to that, another section of the participants indicated to be embarrassed by the societal attitudes with regards to cervical cancer.



This is congruent with a study by Mutyaba et al. (2018) who found out that women feared social judgment if they were found to have cervical lesions, particularly as it may be associated with sexual activity or sexually transmitted infections. There was also a section of the participants who indicated that their cultural beliefs do not permit them to discuss reproductive health issues. Current data findings concur with the study by Ahmed, et al., (2020) who discovered that Taboos and stigmas associated with reproductive health discussions, as well as gender inequities, can hinder women's willingness to participate in Visual Inspection with Acetic Acid and Cervicogram uptake. There were others amongst the participants who indicated that their cultural beliefs do not allow them to undergo invasive procedures. This is in line with literature by Lim, Ojo and Pandav (2021) which found out that this gender-related stigma further restricts women's access to Visual Inspection with Acetic acid and Cervicogram (VIAC) as they may hesitate to discuss or undergo the procedure due to societal expectations. According to current data, communities hold unfavorable views, misconception and stigma surrounding Visual Inspection with Acetic acid and Cervicogram (VIAC) hindering its acceptance and uptake. This call for education and awareness programs so as to disseminate actual information in order to dispel myths and misconceptions. There is also need to train women who have undergone Visual Inspection with Acetic acid and Cervicogram (VIAC) screening to share their positive experiences and educate others in their community.

Still on attitudes and beliefs, a subset of participants expressed concerns regarding privacy and confidentiality, while others cited negative attitudes, lack of empathy and insensitive judgmental behavior by healthcare workers as additions to negative attitudes towards adoption of Visual Inspection with Acetic acid and Cervicogram (VIAC). The findings to the current study are similar to literature by Denny, (2020) who found out that lack of privacy during the Visual Inspection with Acetic acid and Cervicogram (VIAC) procedure and concerns regarding data confidentiality can discourage women from undergoing screening. Pai, et al., also agreed that cultural norms or lack of discreet facilities for screening may discourage women from participating in screening programs. However, it is only the scattered few with the attitude meaning there could be some other factors related to the low cervical cancer screening uptake still needing more exploration.

Never the less, there is need to encourage patient feedback and Complaints to identify negative behavior. Healthcare workers need to have continuous training and education on culturally sensitive communication skills and patient centered care.

### **Perception of Visual Inspection with Acetic acid and Cervicogram (VIAC)**

On perception of Visual Inspection with acetic acid and Cervicogram (VIAC), the majority of participants perceived the screening procedure as traumatic and painful. The data findings tally with literature by Anderson, et al., (2019) who discovered that fear of pain and physical discomfort were main reasons for avoiding cervical cancer screening. On the other end, pain perception can be as a result of previous traumatic gynaecological examinations. The data findings also concur with a study by Soe and Tun (2019) which discovered that previous traumatic or discomforting experiences during Visual Inspection with Acetic acid and Cervicogram or other gynecological procedures can influence women's decisions and willingness to undergo future screenings. This call for the need of intensive counselling and education pertaining the screening process addressing fears and allaying anxiety. Healthcare providers also needs to go on continuous Visual Inspection with Acetic acid and Cervicogram (VIAC) screening training so that they remain skilled and gentle providers who are sensitive to women`s needs. There was another section of the participants who perceived Visual Inspection with Acetic acid and Cervicogram (VIAC) screening to be meant for the promiscuous.

The findings tally with literature by Mutyaba, et al., (2019) who discovered that the fear for societal judgement was exacerbated by the perception of associating cervical cancer with sexual activity or sexually transmitted infections. The data findings call for engagement with local communities, leaders and influencers to promote positive messages and address misconceptions. There is also need for healthcare workers to implement stigma reduction programs to address societal judgment and promote a supportive environment. A portion of the participants correctly perceived that the screening procedure helps in the early detection of cervical cancer.

The small proportion of respondents correctly perceiving the importance of cervical cancer screening is however worrisome as it means that women are not fully equipped with the actual perceptions in as far as Visual Inspection with Acetic acid and Cervicogram (VIAC) is concerned. The study findings are similar to that by Mumba, et al, (2018) who discovered that a substantial number of women residing in underserved areas were unaware of Visual Inspection with Acetic acid and Cervicogram (VIAC) as a screening option, again this calls for intensive awareness and educational programs.

### **Accessibility and availability of Visual Inspection with Acetic acid and Cervicogram (VIAC) services**

Pertaining the availability and accessibility of Visual Inspection with Acetic acid and Cervicogram services, majority of the participants indicated that it is true that the screening services are not available within their vicinity. The current data findings are in consistent with Hakim et al., (2019) who indicated that living far from healthcare facilities and residing in hard-to-reach areas limit women's access to Visual Inspection with Acetic acid and Cervicogram (VIAC) services. The findings call for intensive mobile outreach programs whereby healthcare teams are deployed to underserved areas to provide screening facilities. There is also need for healthcare providers to partner with private sectors so as to increase access to Visual Inspection with Acetic acid and Cervicogram (VIAC) screening services. Regarding the unavailability of the screening information in local languages and culturally appropriate materials, most of the participants indicated it to be false. The current data findings challenges the prevailing literature by (World Health Organization (WHO), 2018) which states that the inadequate availability and accessibility of Visual Inspection with Acetic acid and Cervicogram information in local languages and culturally appropriate materials hinder individuals' understanding of the importance of cervical cancer screening and subsequently discourage them from seeking such services. The data findings again deviate from findings by Ipsos MORI (2019) who found out that participants had limited knowledge about cervical cancer and screenings due to the absence of materials tailored to their cultural beliefs and practices.

To add on to the inconsistency, Jassim et al. (2021), indicated that individuals' lack of awareness about cervical cancer and its prevention methods was attributed to the lack of information available in their local languages and that individuals who predominantly spoke non-mainstream languages faced difficulties comprehending the screening process and its benefits. As a result, women from these communities were less likely to seek Visual Inspection with Acetic acid and Cervicogram (VIAC) services, leading to missed opportunities for early detection and treatment. The deviation in the current data findings from those of other scholars is a reflection that cultural and linguistic barriers are not the primary obstacles to cervical cancer screening therefore there is need to explore other factors so as to understand the low uptake. On inadequate availability of screening facilities, the majority of the respondents indicated having challenges towards cervical cancer screening due to the scarcity of the screening facilities. This is in line with the previous research by Shrestha et al. (2019) who indicated that where Visual Inspection with Acetic acid and Cervicogram (VIAC) clinics were scarce, women were less likely to undergo regular screening, leading to delayed detection of precancerous changes. The findings call for the scaling up of the existing screening facility to accommodate more women. There is also need for policy holders to set up new Visual Inspection with Acetic acid and Cervicogram (VIAC) screening facilities in the underserved areas, leveraging existing healthcare infrastructure.

Regarding transport costs to screening facilities, a significant majority of the respondents concurred that transportation costs to screening facilities are a significant burden. The current data findings support literature by Mwaka et al., (2019) which showed that transportation-related challenges were identified as a significant barrier to cervical cancer screening in rural communities in Uganda. The study then emphasized the need for investment in transportation infrastructure and mobile screening programs to overcome this barrier. The data findings call for measures such as reimbursement or compensation for transport costs incurred by women attending Visual Inspection with Acetic acid and Cervicogram (VIAC) screening.

Cervical cancer screening can be offered at local health facilities so as to reduce transport costs and increase accessibility.

### **Socio-economic factors influencing Visual Inspection with Acetic acid and Cervicogram (VIAC) uptake.**

A small proportion of respondents shared the view that Visual Inspection with Acetic acid and Cervicogram (VIAC) services come with a high price tag. On the other end an overwhelming majority of participants agreed that multiple visits to the clinic once one is diagnosed positive to cervical cancer are expensive. Katzki et al., (2018) discovered that high cost of Visual Inspection with Acetic acid and Cervicogram (VIAC) services, transportation expenses, and the need for multiple visits act as deterrents for women, especially from low-income backgrounds, to undergo screening. However, the findings on the screening services being of high cost are contrary to the current data findings as only a small proportion indicated to having challenges with the screening costs. The findings indicate that the screening costs do not affect Visual Inspection with Acetic acid and Cervicogram (VIAC) screening, as a result, screening services may be offered at no cost making them accessible, this again may be necessitated by donor support providing funding. On the other end, women may be empowered to prioritize their health and take control of their wellbeing regardless of costs. The part on the expensive of multiple visits to the clinic once one is diagnosed positive to cervical cancer had the greatest part of respondents which tallies with the rest of the findings by the same authors. The World Health Organization (WHO) was also of the same opinion when it discovered that the consequences of financial constraints on accessing and undergoing Visual Inspection with Acetic acid and Cervicogram (VIAC) are grave because without widespread availability and affordability of Visual Inspection with Acetic acid and Cervicogram (VIAC), many women will remain undiagnosed until the disease reaches advanced stages, reducing the chances of successful treatment. The organization further stated that this in turn, contributes to the high mortality rates associated with cervical cancer in low-income countries. The findings show that there is need for advocating for measures such as government subsidies or funding for cervical cancer treatment.

Transport assistant programs can also be initiated for patients needing frequent hospital visits. Healthcare institutions should also offer accommodation support through providing affordable accommodation options for patients and their caregivers near the hospitals.

### **Awareness and knowledge on cervical cancer and its prevention**

Respondents who knew that cervical cancer is a malignant tumor that develops on the cervix were much lesser than those who indicated false to the description. This is in line with the study by Khadim, et al., 2020, which showed that the low cervical cancer screening uptake in Senegal was attributed to lack of knowledge on the disease pathology amongst women of different socio-economic and educational statuses. Having multiple sexual partners was indicated to be a predisposing factor to cervical cancer by the minority of the respondents, however, the majority indicated it to be false. The data findings corroborate the literature by Roomaney et al., (2020) in South Africa who found that the majority of women lacked knowledge about cervical cancer and its risk factors. Participants who knew cervical cancer to be treated by holy oil from religious shrines were greater than those who knew that it is false, again, the findings align with the literature by Santika (2019) who discovered that insufficient knowledge of the disease including its preventive and treatment measures among other factors being behind the low uptake of cervical cancer screening.

A larger number of participants knew that it is true that cervical cancer is curable once detected early while a smaller number indicated false to the description. The findings are contrary to literature by Kamanga, et al., (2023) who discovered that factors associated with low utilization of Visual Inspection with Acetic and Cervicogram (VIAC) services included among others the belief that cervical cancer can be cured at any stage and that doctors are able to perform wonders in curing it, this was indicated by 75% of the total respondents. On the description of awareness of Visual Inspection with Acetic acid and Cervicogram (VIAC) screening facilities, a lesser proportion of the respondents indicated to be unaware against the majority who indicated to be aware.

The data contradicts the literature by Roomaney et al., (2020) whose findings indicated that the low utilization of Visual Inspection with Acetic acid and Cervicogram (VIAC) in South Africa extends to the lack of awareness of the availability and benefits of the screening methods. The research findings indicate that most women lacked knowledge on cervical cancer, its pathology, and risk factors as well as treatment modalities with only a few being knowledgeable about it being curable with early diagnosis. The findings call for intensive public awareness campaigns to educate women about cervical cancer. There is also a need to implement health education programs in places such as community and schools. Healthcare providers can partner influencers such as community leaders to disseminate information. Majority of the participants indicated to be aware of the screening facilities and as a result lack of uptake might be attributed to some other reasons that needs to be explored.

### **Health seeking behavior to cervical cancer**

Majority of the participants indicated to be lazy in visiting cervical cancer screening facilities while others indicated to be lacking time to visit screening facilities. The data contradicts the literature by Kamanga, et al., (2023), which highlights that low utilization of cervical cancer screening services in Lilongwe, had 13 % and 12% respondents respectively who expressed laziness and lack of time to visit screening facilities respectively. The data findings indicate that a larger proportion felt lazy and lacked time to go and get screened compared to the findings by Kamanga, at al., (2023). The findings call for the necessity of the location of Visual Inspection with Acetic acid and Cervicogram (VIAC) screening facilities in easily accessible areas with transportation options available if needed. Healthcare workers also has to intensify education and awareness programs on the importance of cervical cancer screening and the benefits of Visual Inspection with Acetic acid and Cervicogram (VIAC) screening. There was a section which indicated that it lacked spousal support on cervical cancer screening. The data findings support literature by Santika (2019) who discovered lack of spousal support to be among other reasons behind low coverage of cervical cancer screening in Nigeria.

### **Barriers to Visual Inspection with Acetic Acid and Cervicogram (VIAC) uptake.**

Most of the participants indicated to be having significant geographical barriers hindering them to access Visual Inspection with Acetic acid and Cervicogram (VIAC) screening facilities. This tallies with findings by the World Health Organization (WHO) (2019), which indicated that around 75% of the global population lacks access to essential healthcare services, mainly due to geographical and socioeconomic barriers. The same organization further stated that this barrier is particularly prevalent in low-income countries, where there is limited infrastructure and resources for healthcare. The current data findings suggest the need for intensive mobile outreach programs so as to bring Visual Inspection with Acetic acid and Cervicogram (VIAC) to remote or hard to reach areas. There is also need for the training of local healthcare providers on Visual Inspection with Acetic acid and Cervicogram (VIAC) screening techniques and cervical cancer management. The majority of the participants agreed that cervical cancer screening facilities are largely concentrated in urban areas and the data supports literature by Weber, et al., (2020) who highlighted that Visual Inspection with Acetic acid and Cervicogram (VIAC) clinics are often concentrated in urban areas, leaving rural populations with limited or no access to these services. The same authors further stated that this geographical mal-distribution creates disparities in healthcare access, as women from remote regions must overcome significant travel barriers or relocate to receive the required Visual Inspection with Acetic acid and Cervicogram (VIAC) examination. Another study conducted by Mumba et al. (2018) aligns with the current data findings as it discovered that a substantial number of women residing in underserved areas were unaware of Visual Inspection with Acetic acid and Cervicogram (VIAC) as a screening option and that the lack of knowledge limits their ability to seek timely screening, emphasizing the need for targeted educational campaigns in these regions. The data findings call for the need to utilize technology-based solutions such as mobile applications to schedule appointments, provide education and facility communication with women in rural areas.



## **Conclusion**

In conclusion, the study's findings highlight the importance of addressing multiple factors that influence low participation in Visual Inspection with Acetic acid and Cervicogram (VIAC) screening. To improve cervical cancer screening rates, targeted awareness and educational initiatives are crucial for women, healthcare providers, and communities. Additionally, community outreach programs are essential to reach women in remote and underserved areas, promoting inclusive access to life-saving screening services. Several factors contributed to low Visual Inspection with Acetic acid and Cervicogram (VIAC) screening rates. These included: misconceptions and negative attitudes whereby 30% believed a cervical cancer diagnosis means a death sentence, and 27% cited cultural restrictions on discussing reproductive health. Fear and misconception about the procedure whereby 46% perceived Visual Inspection with Acetic acid And Cervicogram (VIAC) as traumatic and painful. Lack of motivation as 38% admitted to being too lazy to visit screening facilities. Sixty-nine (69%) reported no screening facilities nearby while 77% and 82% expressed transportation costs and multiple visits, respectively. Seventy-three (73%) lacked knowledge about cervical cancer while 56% were unaware of the treatment options, with some relying on holy oil from religious shrines. Fifty-eight (58%) faced geographical barriers while 66% noted that screening facilities were mostly located in urban areas making access difficult for rural residence.

## **Limitations**

The study was carried out in partial fulfilment of the requirements of the Bachelor of Science (Honors) Degree in Nursing Science and Education, as a result, limitations included lack of experience in research and also lack of funding. The research study was limited to Gokwe South District Hospital only hence the results cannot be generalized. The convenient sampling which was utilized might have introduced some bias since nothing is known about those women who did not participate in the study. Since the researcher was not experienced with research, this might have affected the study to some extent.

### **Nursing implications**

#### **Healthcare Workers**

Healthcare workers should be involved in community outreach and health education programs to increase awareness and knowledge about Visual Inspection with Acetic acid and Cervicogram (VIAC) uptake.

#### **Women of Childbearing age**

Women of childbearing age should improve access to reproductive health services including cervical cancer screening.

### **Recommendations**

#### **Policy Holders**

1. Policy holders to establish Visual Inspection with Acetic acid and Cervicogram (VIAC) screening facilities in hard to reach to areas.

#### **Nursing Practice**

2. Nurses to intensify on outreach programs on awareness and screening of cervical cancer.

#### **Education**

3. A study to identify the effects associated with low uptake of Visual Inspection with Acetic acid and Cervicogram (VIAC).

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## **APENDIX 1: STUDY QUESTIONNAIRE**

### **Study Questionnaire**

I am Aduniya Mtukwa, a student at Bindura University of Science Education. I am carrying out a study on factors associated with low uptake of Visual Inspection with Acetic acid and Cervicogram (VIAC) among women aged 18 to 45 years as part of the fulfilment of the requirements of the Honors Degree in Nursing Science and Education. I am kindly requesting for your participation in the completion of the questionnaire. The information that you shall provide will be treated with privacy and confidentiality and it shall be used strictly for academic purposes only. Your name should not appear anywhere on the questionnaire. You are allowed to withdraw from participation at any time you wish to and do not feel comfortable to continue. This will not affect the quality of care being rendered to you.

### **Section A: Demographic data**

**Please tick your response in the appropriate box.**

1. Place of residence:

Sasame	
Mapfungautsi	
Mutange	
Njelele	
Cheziya	

Other (specify):

2. Age:

18-25	
26-30	
31-35	
36-40	
41-45	

3. How many children do you have?

1	2	3	4

4. Marital status:

Single	
Married	
Widowed	
Divorced	

5. Level of education:

Primary	
Secondary	
Tertiary	
Not educated	

6. Religion:

Christianity	
Muslim	
Traditionalist	
Other	

7. Occupation:

Formal	
Self-employed	
Housewife	
Not employed	

**Section B:****Factors associated with low uptake of Visual Inspection with Acetic acid and Cervicogram****Attitudes and beliefs towards Visual Inspection with Acetic acid and Cervicogram (VIAC)**

**Please tick your response in the appropriate box**

<b>Description</b>	
Embarrassment as a result of societal perception in regards to cervical cancer.	
Concerns regarding privacy and confidentiality.	
Culture does not permit discussion of reproductive health issues.	
Culture does not permit to undergo invasive procedures.	
Insensitive and judgmental behaviour by health care workers.	
Negative attitude and lack of empathy by health care workers.	
Being diagnosed with cervical cancer will be an end to life for it cannot be cured.	

**Perception of Visual Inspection with Acetic acid and Cervicogram (VIAC) uptake.**

<b>Description</b>	
Visual Inspection with Acetic acid and Cervicogram helps in the Early detection of Cervical cancer	
Visual Inspection with Acetic acid (VIAC) is a traumatic and painful procedure	
Visual Inspection with Acetic acid and Cervicogram (VIAC) is meant for the promiscuous.	

**Accessibility and availability of Visual Inspection with Acetic acid and Cervicogram (VIAC) services**

<b>Description</b>	<b>True</b>	<b>False</b>
Visual Inspection with Acetic acid and Cervicogram services are not available within the vicinity.		
Visual Inspection with Acetic acid and Cervicogram (VIAC) information is not available and accessible in local languages and culturally appropriate materials.		
Visual Inspection with Acetic acid and Cervicogram (VIAC) screening facilities are inadequate.		
Transport costs to Visual Inspection with Acetic acid and Cervicogram (VIAC) screening facilities are expensive.		

**Socio-economic factors influencing Visual Inspection with Acetic acid and Cervicogram (VIAC) uptake**

Description	Yes	No
High costs of Visual Inspection with Acetic acid and Cervicogram (VIAC) services.		
High costs of multiple visits to the clinic when one is diagnosed positive to cervical cancer.		

**Awareness and knowledge on cervical cancer and its prevention**

Description	True	False
Cervical cancer is a malignant tumour that develops on the cervix.		
Cervical cancer is a disease resulting from being cursed by the gods.		
Having multiple sexual partners predisposes to cervical cancer.		
Cervical cancer can be cured if detected early.		
Unaware of Visual Inspection with Acetic acid and Cervicogram (VIAC) screening facilities.		

**Health seeking behavior to cervical cancer and sources of information.**

Description	
Laziness in visiting screening facilities.	
Lack of time to go and get screened.	
Spouse not in support of Visual Inspection with Acetic acid and Cervicogram (VIAC) Screening	

**Barriers to Visual Inspection with Acetic acid and Cervicogram (VIAC) uptake.**

Description	Yes	No
Significant geographical barriers to access Visual Inspection with Acetic acid and cerviogram screening facilities.		
Visual Inspection with Acetic acid and Cervicogram (VIAC) facilities are located in urban areas.		

**Thank you.**

## APPENDIX 2: STUDY QUESTIONNAIRE (SHONA VERSION)

### Gwaro remubvunzo

Zita rangu ndinonzi Aduniya Mtukwa, ndiri mudzidzi pachikoro chedzidzo yepamusoro chinova Bindura University of Science Education. Ndiri kuitawo tsvakurudzo pamusoro pezvikonzero zvinoita kuti pave nekushomeka kwehuhwandu hwekuongororwa kwegomarara remuromo wechibereko pakati pemadzimai ane makore gumi nemasere kusvika pamakumi mana nemashanu. Tsvakurudzo iyi ndiri kuiita kuzadzisa zvimwe zvezvikwanisiro zverugwaro rwangu rwedzidzo yepamusoro mune zvehukoti pamwe nekudzidziswa kwevakoti. Chinangwa chetsvakurudzo ino ndechekuunganidza umbowo maringe nezvimhinga mupinyi uye matambudziko anosanganiwa nawo nemadzimai achiri kubereka takatarisa kuwanikwa kwemukana uye kuongororwa kwegomarara rechibereko pachipatra che Gokwe South District Hospital. Mvumo yekupfuurira mberi netsvakurudzo yakakumbirwa kubva kumapato anokodzera. Chinova chikumbiro change kuti mupindure nekuzadzikisa mibvunzo yakabvunzwa. Umbowo hwamuchatipa huchange hwakachengetedzeka uye hauzovhundunyurwe kunaani zvake, uchangoshandiswa muzvidzidzo chete. Zita renyu harina kufanira kuva pachinyorwa chemubvunzo kuitira kuti musazivikanwa kana kuteverwa panguva yandinenge ndichizoitwa tsvakurudzo iyi. Makasununguka kubuda mutsvakurudzo chero ipi zvayo nguva uye izvi hazvizokanganisa marapirwe amagara muchiitwa.

### Chikamu chekutanga: Humbowo hwedungamunhu

#### Isa runyoro maringe nemhinduro yako munzvimbo iri mumagwanza

1. Nzimbo yamunogara:

Nemangwe	
Mapfungautsi	
Bomba	
Njelele	
Cheziya	

Imwe nzimbo (nyora kuti kupi):

2. Makore ekuberekwa6

Gumi nemasere kusvika pamakumi maviri nemshanu	
Makumi maviri nematanhatu kusvika pamakuni matatu	
Makumi matatu nerimwe kusvika pamakumi matatu nemashanu	
Makumi matatu nematanhatu kusvika pamakumi mana	
Makumi mana nerimwe kusvika pamakumi mana nemashanu	

3. Mune vana vangani?

mumwechete	Vaviri	Vatatu	Vana

4. Mamiriro enyu panyaya dzewanano:

Handina kuwanikwa	
Ndakawanikwa	
Ndiri chirikadzi	
Ndakarambana nemurume	

5. Makadziidza zvakadii?

Dzidzo yepasipasi	
Dzidzo yepakati nepakati	
Dzidzo yepamusorosoro	
Handina kudzidza	

6. Zvechitendero:

Ndiri mukirisitu	
Ndiri mu Moziremu	
Ndotenda muchivanhu	
Chimwewo chitendero	

7. Zvemushando:

Ndinomukira kubasa	
Ndinozvishandira namaoko	
Ndiri mai vepamba	
handishande	

**Chikamu chechipiri: zvikonzero zvinoita kuti pave nekushomeka kwehuhwandu hwemadzimai anoongororwa gomarara remuromo wechibereko**

**Maitiro nemafungiro maringe nekuongororwa gomarara remuromo wechibereko**

<b>Tsanangudzo</b>	
Ndinonyara kuongororwa nekuda kwemafungiro nemaonerwo anoitwa chirwere chegomarara remuromo wechibereko nrvanhu vemunharaunda mandinogara.	
Handigutsikane nekuchengetedzeka kwakavanzike kwezvehutano hwangu ndokunge ndawanikwa ndine utachiwana hunokonzera gomarara remuromo wechibereko.	
Chitendero changu hachindibvumidze kuita hurukuro maringe nehutano hwangu hwesikarudzi.	
Chitendero changu hachindibvumidze kuitwa ongororo dzinorwadzisa muviri.	
Vashandi vehutano vanopomera pamwe nokutongera uyo anenge awanikwa aine utachiwana unokonzera chirwere chegomarara remuromo wechibereko.	
Vashandi vehutano havabati kana kunzwira varwere vanenge vauya kuzorapwa.	
Kuwanikwa ndiine chirwere chegomarara remuromo wechibereko zvinoreva rufu sezvo chisingarapike.	



**Maonero maringe nekuongororwa gomarara remuromo wechibereko.**

<b>Tsanangudzo</b>	
Kuongororwa hutachiwana hwegomarara remuromo wechibereko kunobatsira mukubatsira kuona chirwere chegomarara chisati chadzika midzi	
Kuongororwa gomarara remuromo wechibereko kunorwadza zvakanyanya	
Kuongororwa kwegomarara remuromo wechibereko ndekweavo badzi vasina kuzvibata panyaya dzepabonde.	

**Kusvikirika nekuwnikwa kwenzvimbo dzinoongororwa gomarara remuromo wechibereko.**

<b>Tsanangudzo</b>	<b>Ichokwadi</b>	<b>Manyepo</b>
Zvipatara zvinoongorora gomarara remuromo wechibereko hazviwanike munzvimbo dziri pedo.		
nhau maringe nehurongwa hwekuongororwa kwegomarara remuromo wechibereko hadziwanike mumutauro wechivanhu uye nenzira dzinotenderwa kana ndichitarisa tsika dzedu.		
Zvipatara zvinoongorora gomarara remuromo wechibereko zvakashomeka.		
Michovha kuenda kuzvipatara zvinoongorora chirwere chegomarara remuromo wechibereko inodhura.		

**Mmagariro nemararamiro maringe nekuongororwa kwegomarara remuromo wechibereko.**

<b>Tsanangudzo</b>	<b>Hongu</b>	<b>Kwete</b>
Zvine mutengo wepamusorosoro kuti uongororwe chirwere chegomarara remuromo wechibereko.		
Zvine mutengo unodhura kuramba ndoshanyira chipatara ndokunge ndawanikwandiine chirwere chinokonjera gomarara remuromowechibereko.		

**Ruzivo maringe nechirwere chegomarara remuromo wechibereko uye nekudzivirirwa kewacho**

<b>Tsanangudzo</b>	<b>Hongu</b>	<b>Kwete</b>
Chirwere chegomarara remuromo wechibereko ibundu rinotandira uye rinobuda pamuromo wechibereko.		
Kuva navadiwa vepabonde vakawanda kunoisa panjodzi yekuva nechirwere chegomarara remuromo wechibereko.		
Chirwerere chegomarara remuromo wechibereko chinorapika kana kukashandiswa mafuta matsvene ekuchitendero.		
Chirwere chegomarara reemuromo wechibereko chinorapika chikakasira kubatwa.		
Handizive nezvenzvimbo dzinoongororwa gomarara remuromo wechibereko.		

**Maitiro maringe nekuzvichengeta edza pahutano uye kunobva mashoko acho.**

<b>Tsanangudzo</b>	
Ndinonzwa nungo kuenda kunoongororwa gomarara remuromo wechibereko.	
Handina nguva yekuenda kunoongororwa gomarara wemuromo wechibereko.	
Mudiwa wangu haanditsigire maringe nekunoongororwa gomarara remuromo wechibereko.	

**Zvimhingamupinyi maringe nekuongororwa kwegomarara remuromo wechibereko.**

<b>Tsanangudzo</b>	<b>Hongu</b>	<b>Kwete</b>
Mamiriro ekunze enzvimbo yandinogara anodzivisa kufamba kwakanaka.		
Zvipatara zvinoongorora gomarara remuromo wechibereko dzinowanikwa kumaguta chete.		

**Ndatenda.**

### APPENDIX 3: INFORMED CONSENT

Dear Participant

I am Aduniya Mtukwa, a student at Bindura University of Science Education (BUSE). I am carrying out a study on factors associated with low uptake of Visual Inspection with Acetic acid and Cervicogram (VIAC) among women aged 18 to 45 years as part of fulfilment of the requirements of the Honors degree in Nursing Science and Education. The purpose of this study is to identify the barriers and challenges faced by women of child bearing age when it comes to accessing and undergoing Visual Inspection with Acetic acid and Cervicogram (VIAC) screening at Gokwe South District Hospital. Permission to carry-out the study has been obtained from relevant authorities. I am kindly requesting for your participation in the completion of this questionnaire anonymously and this will take about 15-25 minutes. The information that you shall provide will be treated with privacy and confidentiality and it shall be used strictly for academic purposes only. Your name should not appear anywhere on the questionnaire so that identity will not be traceable or revealed at any time during the study. You are allowed to withdraw from participation at any time should you feel like doing so. This will not affect the quality of care being provided to you.

Participant's signature..... Date.....

I have explained the study to the above participant and have sought understanding for informed consent.

Investigator's name.....

Investigator signature.....Date.....

Contact details: The investigator can be contacted at Gokwe South District Hospital or through Bindura University of Science Education, Department of Health Sciences. Email: [aduniamtu@gmail.com](mailto:aduniamtu@gmail.com). Contact Cell: 0773097165

## **APPENDIX 4: INFORMED CONSENT (SHONA VERSION)**

### **GWARO REBVUMIRANO NEVACHAPINDA MUTSVAKIRIDZO**

#### **Tsanangudzo yetsvakurudzo**

#### **Kune achapinda mutsvakurudzo**

Zita rangu ndinonzi Aduniya Mtukwa, ndiri mudzidzi pachikoro chedzidzo yepamusoro chinova Bindura University of Science Education. Ndiri kuitawo tsvakurudzo pamusoro pezvikonzero zvinoita kuti pave nekushomeka kwehuhwandu hwekuongororwa kwegomarara remuromo wechibereko pakati pemadzimai ane makore gumi nemasere kusvika pamakumi mana nemashanu. Tsvakurudzo iyi ndiri kuiita kuzadzisa zvimwe zvezvikwanisiro zverugwaro rwangu rwedzidzo yepamusoro mune zvehukoti pamwe nekudzidziswa kwevakoti. Chinangwa chetsvakurudzo ino ndechekuunganidza umbowo maringe nezvimhingamupinyi uye matambudziko anosanganiwa nawo nemadzimai achiri kubereka takatarisa kuwanikwa kwemukana uye kuongororwa kwegomarara rechibereko pachipatra che Gokwe South District Hospital. Mvumo yekupfuurira mberi netsvakurudzo yakakumbirwa kubva kuzvikamu zvakakodzera. Chinova chikumbiro change kuti mupindure nekuzadzikisa mibvunzo yakabvunzwa. Zvichakutorerai nguva iri pakati pemaminitsi gumi nemashanu kusvika kumakumi maviri nemashanu uye zvose izvi zvichazenge zvichiitwa pasina kuburitsa kujekerere kuti ndimi ani. Umbowo hwamuchatipa huchange hwakachengetedzeka uye hauzovhundunyurwe kunaani zvake, uchangoshandiswa muzvidzidzo chete. Zita renyu harina kufanira kuva pachinyorwa chemubvunzo kuitira kuti musazivikanwa kana kuteverwa panguva yandinenge ndichizoita tsvakurudzo iyi. Makasununguka kubuda mutsvakurudzo chero ipi zvayo nguva uye izvi hazvizokanganisa marapirwe amagara muchiitwa

Runyoro rweachapinda musarudzo.....zuva.....mwedzi.....gore

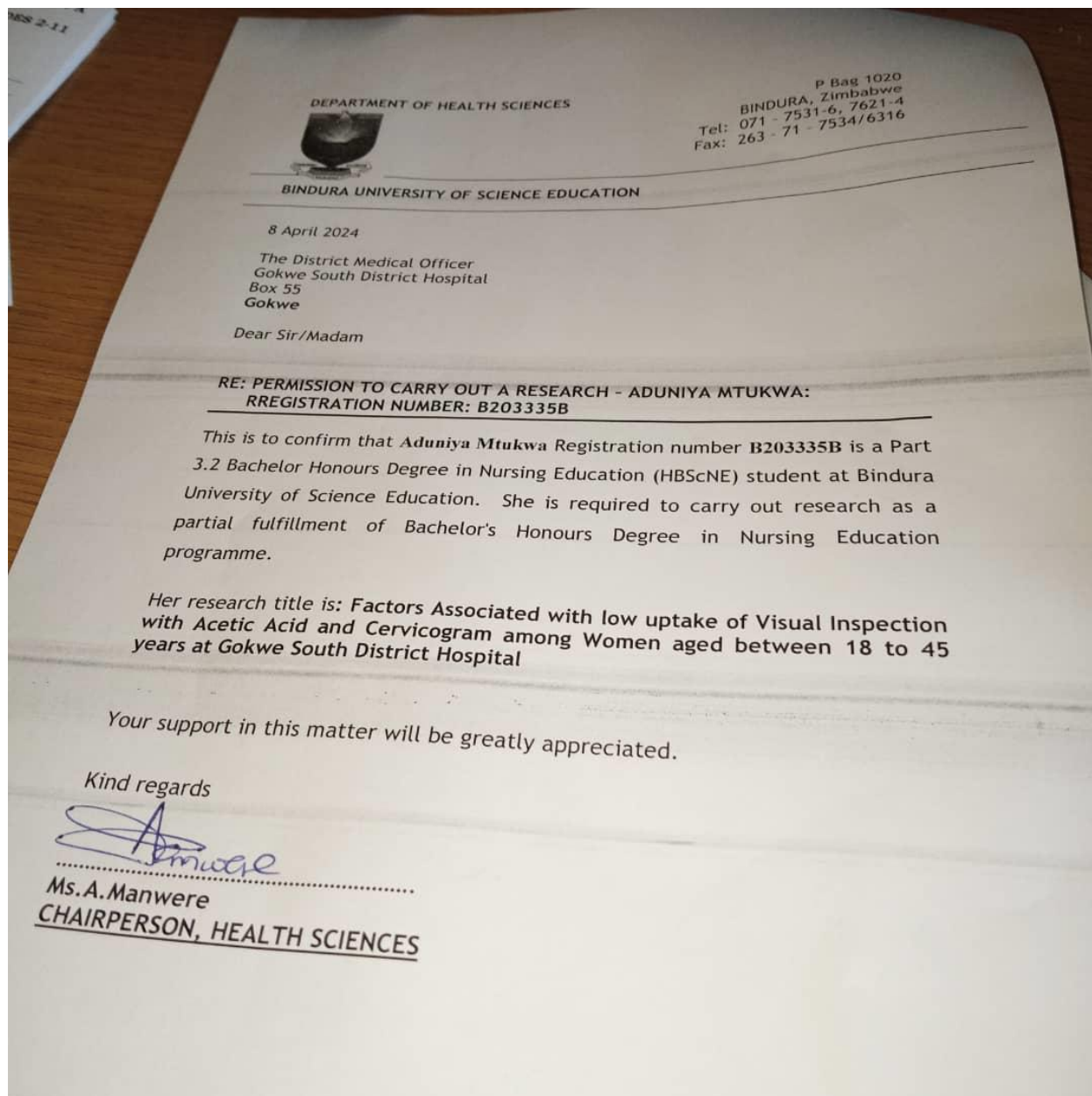
Ndatsanangurira achapinda musarudzo anove ane runyoro rwuri pamusoro maringe netsvakurudzo yandichazenge ndichiita, tabvumirana pana zvose akandipa mvumo yekupfuurira mberi tichishandidzana mutsvakurudzo iyi.

Zita ramuzvina tsvakurudzo.....


Runyoro rwamuzvina tsvakurudzo.....zuva.....mwedzi.....gore

Kungawanikwa muzvinatsvakurudzo: Muzvinatsvakurudzo anokwanisa kubatika pachipatara che Gokwe South District Hospital kana kuburikidza nebazi rinodzidza nezvehutano pachikoro chedzidzo yepamusoro che Bindura University of Science Education. Mwadi yemasaisai: [aduniamtu@gmail.com](mailto:aduniamtu@gmail.com). Nharembozha: 0773097165.

APPENDIX 5: LETTER OF SUPPORT FROM HEALTH SCIENCES DEPARTMENT TO DISTRICT MEDICAL OFFICER GOKWE SOUTH



APPENDIX 6: PERMISSION LETTER FROM THE DISTRICT MEDICAL OFFICER GOKWE SOUTH DISTRICT HOSPITAL

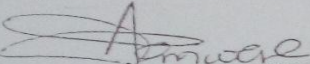
  
BINDURA UNIVERSITY OF SCIENCE EDUCATION  
8 April 2023  
The District Medical Officer  
Gokwe South District Hospital  
Box 55  
Gokwe  
Dear Sir/Madam

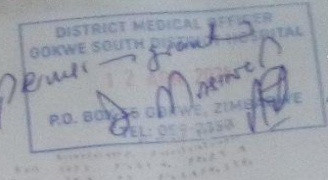
**RE: PERMISSION TO CARRY OUT A RESEARCH - ADUNIYA MTUKWA:  
RREGISTRATION NUMBER: B203335B**

This is to confirm that Aduniya Mtukwa Registration number B203335B is a Part 372 Bachelor Honours Degree in Nursing Education (HBScNE) student at Bindura University of Science Education. She is required to carry out research as a partial fulfillment of Bachelor's Honours Degree in Nursing Education programme.

Her research title is: Factors Associated with low uptake of Visual Inspection with Acetic Acid and Cervicogram among Women aged between 18 to 45 years at Gokwe South District Hospital

Your support in this matter will be greatly appreciated.

Kind regards  
  
Ms. A. Manwere  
CHAIRPERSON, HEALTH SCIENCES

  
DISTRICT MEDICAL OFFICER  
GOKWE SOUTH DISTRICT HOSPITAL  
P.O. BOX 55 GOKWE, ZIMBABWE  
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CS CamScanner