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**FACTORS INFLUENCING UPTAKE OF CERVICAL CANCER SCREENING
AMONG WOMEN AT CHINHOYI PROVINCIAL HOSPITAL, ZIMBABWE**

BY

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**RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE
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ABSTRACT

Cervical cancer is a significant public health burden in most developing countries, where it is a major cause of mortality and morbidity among women despite it being a preventable condition with early detection by means of cervical cancer screening. This study seeks to identify factors influencing the uptake of cervical cancer screening among women at Chinhoyi Provincial Hospital. A cross-sectional study design was used in this study. Data was collected using an interviewer administered questionnaire with 4 sections addressing demographic information, knowledge and attitudes concerning cervical cancer screening among women as well as barriers to cervical cancer screening. A sample size of 78 participants with a mean age of 46 years was selected through convenience sampling. The majority (38%) participants were divorced indicating that married women are not keen on accessing cervical cancer screening services. The study identified that 51% participants received information on cervical cancer screening through radio. The widely held opinion by the participants was that HIV positive women were the most vulnerable to cervical cancer. However, a significant number (32%) did not know the most common signs and symptoms of cervical cancer. Unsupportive partners, religious teachings, distance from the health care facility and costs encountered were factors hindering the uptake of cervical cancer screening. It is therefore prudent to recommend conducting awareness campaigns on cervical cancer screening starting from grassroots level, for instance, involving community and religious leaders in encouraging women to undergo cervical cancer screening. Outreach programs should be conducted in order to reach out to those who do not live near the hospital and find it difficult to travel to the health care facility for cancer screening. There is also the need to involve other family members, namely husbands' involvement for support of cervical cancer screening. Furthermore, there can be an initiative to have lectures in schools on cervical cancer screening so that young girls are well informed on the importance of accessing cancer screening services in the future and also disseminate the information of cervical cancer screening to their parents.

Key words: Cancer of the cervix, Cervix, Cervix-Screening

DECLARATION

I declare that this research carried out at Chinhoyi provincial hospital is my own work and all the sources used have been indicated and acknowledged by means of complete references and that this work has not been submitted before at any other degree or institution.

.....

Students full name Students signature [Date]

.....

Main supervisor's full name Main supervisor's signature [Date]

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DEDICATION

I dedicate this research to all mothers for good health and healing for all those with cervical cancer.

LIST OF ABBREVIATIONS

CA	Cancer
CC	Cervical Cancer
CDC	Central Disease Control
WHO	World Health Organization
CCSS	Cervical Cancer Screening Services
CDC	Centre of Disease Control
CIN	Cervical Intra Epithelial Neoplasm
HPV	Human Papillomavirus
ICC	Invasive Cervical Cancer
M0HCC	Ministry of Health and Child care
NGO	Non-Governmental Organization
VIA	Visual Inspection with Acetate
UNFPA	United Nations Fund for Population Activities

DEFINITION OF KEY TERMS

Cancer of the cervix: Is a malignant disease that occurs when the cells of the cervix proliferate to abnormal cells and can affect deeper cell layers.

Cervix: The lower, narrow end of the uterus that forms a canal between the uterus and vagina.

Cervix-Screening: A test or testing carried out routinely on supposedly healthy people in order to establish, as early as possible, whether or not they have an illness or disease (Cormack, 2014)

Knowledge: What one knows and understands about a certain phenomenon (Bosch, 2011).

Women: Females aged 15 years and above (Lim, 2011)

TABLE OF CONTENTS

Title Page.....	i
Abstract	ii
Copyright.....	iv
Acknowledgements.....	v
Dedication.....	vi
List of abbreviations.....	vii
Definition of key terms	viii
Table of contents.....	ix
List of tables	xii
CHAPTER 1: INTRODUCTION.....	1
1.0 Introduction.....	1
1.1 Background Information.....	1
1.2 Problem Statement	2
1.3 Research Objectives	3
1.3.1 General Objectives	3
1.3.2 Specific Objectives.....	3
1.4 Research Questions	4
1.5 Justification of the Study	4
1.6 Delimitations of the study.....	4
1.7 Summary.....	4
CHAPTER 2: LITERATURE REVIEW	6
2.0 Introduction.....	6
2.1 Global Burden of Cervical Cancer	6
2.2 Burden of Cervical Cancer in Africa.....	8
2.2.1 Knowledge Levels on Cervical Cancer Screening Among Women.	10
2.2.2 Attitude of Women towards Cervical Cancer Screening Among Women.	11
2.2.3 Barriers of Cervical Cancer Screening	13
2.3 Burden of Cervical Cancer in Zimbabwe	14
2.4 Summary.....	17

CHAPTER 3: METHODOLOGY	18
3.0 Introduction.....	18
3.1 Research Design.....	18
3.2 Study Site.....	18
3.3 Study Population	19
3.3.1 Inclusion criteria.....	19
3.3.2 Exclusion criteria.....	19
3.4 Sample size	19
3.5 Sampling Method	20
3.6 Data Collection Instruments	20
3.7 Pre Testing of the Instrument.....	20
3.8 Data Collection Procedure	20
3.9 Data Analysis	21
3.10 Ethical considerations.....	21
3.11 Summary.....	22
CHAPTER 4: DATA PRESENTATION, ANALYSIS AND INTERPRETATION.....	23
4.0 Introduction.....	23
4.1 Demographic characteristics	23
4.2 Knowledge regarding cervical cancer screening.....	27
4.3 Attitudes of participants towards cervical cancer screening.....	28
4.4 Barriers to cervical cancer screening.....	29
4.5 Conclusion	31
CHAPTER 5: DISCUSSIONAND RECOMMENDATIONS	32
5.0 Introduction.....	32
5.1 Summary	32
5.2 Discussion.....	32
5.2.1. Demographic data regarding uptake of cervical cancer screening on women.....	32
5.2.2. Knowledge Levels on Cervical Cancer Screening Among Women	34
5.2.3. Attitude of Women towards Cervical Cancer Screening Among Women.....	35
5.2.4. Barriers to cervical cancer screening.....	36
5.3 Implications of low uptake of cervical cancer screening on women	36
5.4 Conclusions.....	37

5.5	Recommendations	37
5.6	Limitations of the Study	38
5.7	Dissemination of results	38
5.8	Areas recommended for further study	38
5.9	Conclusion	38
	REFERENCES	39
	APPENDICES	41

LIST OF TABLES

Table	Page
Table 4.1: Age of participants.....	23
Table 4.2: Marital status of the participants.....	24
Table 4.3: Religion of the participants.....	25
Table 4.4: Level of education of the Participants.....	26
Table 4.5: Source of information on cervical cancer	27
Table 4.6: Shows who the participants thought were at the highest risk of being diagnosed with cervical cancer.....	27
Table 4.7: Shows what the respondents thought was the most common signs and symptoms of cervical cancer	28
Table 4.8: Shows how the respondents felt (attitude) about cervical cancer and how they think about women receiving cervical cancer screening	28
Table 4.9: Shows if the participants thought there was effective cervical cancer screening services at their health facilities	29
Table 4.10: Shows of 30 participants out of the 78 study participants who testified that they had cervical cancer screening were provided with privacy, counseling and test results explanation.....	29
Table 4.11: shows if participants were encountering costs during cervical cancer screening	30
Table 4.12: Availability of support from partners for married women towards cervical cancer screening	30
Table 4.13: Shows distance the respondent take to travel to the health facility.....	30
Table 4.14: Indicates the mode of transport the participants used to travel to the health facility.....	30
Table 4.15: The most common barriers to cervical cancer screening according to study participants.....	30

LIST OF FIGURES

Figure	Page
Fig 4.1: Shows age of study participants against their number.....	23
Fig 4.2: Shows different marital status of study participants.....	24
Fig 4.3: Shows study participants' religion and their number in percentages.....	25
Fig 4.4: Shows educational level of study participants.....	26

LIST OF APPENDICES

Appendix	Page
Appendix A: Approval letter from AUREC to carry out research	42
Appendix B: Approval letter from Chinhoyi Provincial Hospital.....	43
Appendix C: Informed Consent (English).....	44
Appendix D: Research Instrument (English).....	45
Appendix E: Informed Consent (Shona).....	49
Appendix F: Research Instrument (Shona).....	50

CHAPTER 1:INTRODUCTION

1.0 Introduction

Cervical cancer has been a worldwide concern ranked as one of the highest killer diseases among women. Screening of cervical cancer is the testing of healthy women for signs indicating the development of cancer of the cervix, (WHO, 2014). This explains that cervical screening is a way of preventing cervical cancer by finding and treating early changes in the cervix. This study will focus on the factors influencing uptake of cervical cancer screening by woman at Chinhoyi Provincial Hospital. The chapter will look at the background information, statement of the problem, study justification, research objectives, research question, limitations and delimitations.

1.1 Background Information

Cervical cancer is a significant public health burden in most developing countries, where it is a major cause of mortality and morbidity among women (WHO, 2014). Globally 500000 people are estimated to be diagnosed of cervical cancer and over 250000 people die each year. This is more apparent in developing countries which cover about 80% of the burden despite having reduced health service coverage globally. The average affected ages by cervical cancer are within the range of 15 to 44 (WHO, 2013) (Balogun M, 2012).

World Health Organization in 2013 stated that cervical cancer has been on an increase and a leading cause of death. Centre of disease control furthermore states that cervical cancer is the easiest gynecological cancer that can be prevented (CDC, 2013). Cancer of the cervix is staged from 0 to IV, the lower the number; the less the cancer has spread. Stage 0 is the

precancerous; Stage I (one) is the earliest stage and is the easiest to cure while stage IV (four) is the most advanced stage indicating that the cancer has spread to other parts of the body. The cure rate for stage I cancer is 85% to 90%, while the cure rate for stage IV cancer is only 5% to 10%. Invasive cancer of the cervix is treated by surgery, or radiation therapy and chemotherapy (Chirenje et al., 2012). In 2010 and 2011, UNFPA has been in support of Visual Inspection with Acetate (VIAC) which is a treat method that is cost effective and minimises delays and the number of visits between screening and treatment. The programme aims to increase the population coverage of cervical cancer screening in the public health sector. Therefore, the study on uptake of cervical cancer screening is essential.

1.2 Problem Statement

Cervical cancer has been a worldwide concern and burden despite it being a preventable condition with early detection via cervical cancer screening. The challenge has been that diagnosis is done late and the prognosis has been poor. Mashonaland West province has been giving cervical cancer screening static and mobile and still it has not been able to reach out to all needing the screening services and it has not been able to fully promote uptake of cervical cancer screening by women. At Chinhoyi provincial Hospital all the entry points for women encourage cervical cancer screening, that is the out patients, family child health and casualty. The aim of Visual Inspection with Acetate (VIAC) is to screen and detect VIAC positive cases, offer appropriate treatment, provide expert management to support those susceptible to cancer with the aim of reducing mortality related to cervical cancer.

Table 1.1: Number of Women Screened for Cervical Cancer at Chinhoyi Provincial Hospital

Year	Total Study Population	Total Study Site Screened	Percentage
2016	10 000	1 653	16.53
2017	11000	2 035	18.5
2018	13000	3 660	28.15

Source: Chinhoyi Provincial Hospital information system.

The above statistics show that most of the women seen at Chinhoyi provincial hospital have not sought the cervical cancer screening services. Despite the increase in number, the increase is not yet significant enough to indicate a marked increase in uptake of cancer screening among women in Chinhoyi provincial Hospital.

The relevance of this research study will provide important information or results to the scientific, public health and policy communities that influence treatment algorithms and diagnostic approaches in order to reduce the morbidity and mortality of the Cervical cancer.

1.3 Research Objectives

1.3.1 General Objectives

To determine the factors influencing uptake of cervical cancer screening among women at Chinhoyi Provincial Hospital.

1.3.2 Specific Objectives

1. To determine the knowledge levels among women attending Chinhoyi Provincial Hospital on cervical cancer screening.
2. To assess the attitude of women towards cervical cancer screening among women being attended to at Chinhoyi provincial Hospital
3. To identify the barriers to cervical cancer screening among women attending Chinhoyi Provincial Hospital.

1.4 Research Questions

1. What is the knowledge levels regarding cervical cancer screening among women attending Chinhoyi Provincial Hospital?
2. What are the attitudes regarding cervical cancer screening among women attended at Chinhoyi Provincial Hospital?
3. What are the barriers regarding cervical cancer screening among women attending Chinhoyi Provincial Hospital?

1.5 Justification of the Study

It is anticipated that results of this study will go a long way in assisting the implementers of the programme to have more women coming for cancer screening. The results will also have an impact on the whole country as the recommendations are going to be implemented nationally.

1.6 Delimitations of the study

The study was done at one site (Chinhoyi Provincial Hospital) on 78 patients. The generalized results may not be a true representative of uptake of cervical cancer screening. The participants under study were selected under convenience sampling method which involved selecting participants as they came till the required number was reached. This sampling method has an element of bias.

1.7 Summary

The chapter covered the background of study, the statement of the problem, broad objective, research objectives, and research questions. Significance, and delimitations of the study were also addressed.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

A literature review is a comprehensive summary of previous research on a topic. The literature review surveys scholarly articles, books, and other sources relevant to a particular area of research (Machi 2008). The selected literature in this chapter is discussed under the following headings: , knowledge, attitude, barriers and finally a conclusion was drawn regarding cervical cancer screening uptake.

Cervical cancer refers to a situation whereby abnormal cells in the cervix start to grow very quickly and cannot be controlled by normal body processes. Overtime, normal cells in the cervix will be taken over by the cancer cells, which may spread to other parts of the body and disturb normal function, (metastasis). With early diagnosis and treatment, cervical cancer is manageable and even curable. However, delaying to seek medical help causes disability and death, (Human Papillomavirus, WHO position paper, May 2018).

2.1 Global Burden of Cervical Cancer

According to a study done in Canada (2013) there were more cases identified in under screened women, with a mean age of 34.2 years. Despite early detection reducing the incidence of cervical cancer, the problem was underutilization of cervical cancer screening. Sixty percent (60%) of cervical cancer cases occur in the women not screened (Cerigo, Coutlee, Fanco and Brussard, 2013). In Brazil despite cervical cancer being regarded as preventable with appropriate care 230 000 deaths annually are related to cervical cancer (Rocha, Silva, Queroz, Saiza, Barbosa, Thume, Staton, Vissoci, Facchinii, 2017). This

furthermore highlights cervical cancer screening uptake as a challenge for many women. However, El Salvador Central America recorded the lowest screening coverage for cervical cancer screening. The reasons associated with these results were structural and interpersonal barriers to cervical cancer screening which included lack of knowledge of available services, financial constraints, family responsibilities, difficulties obtaining transport and dissatisfaction with care and disapproval by male partners.

The findings in a study done in Malaysia revealed that the uptake of cervical cancer screening among the African women was very low. Marital status, knowledge, perceived barriers and having a regular health care provider were the predictive factors. Specific awareness programs to increase uptake should be designed and implemented by the relevant authorities (Nwabichie, Manaf, Ismail, 2018).

Amelia in a study done (2017) identified that age was a key factor in the uptake of cervical cancer screening. Among the 13,886 women, 2,862 were evaluated as having an adequate screening history after the initial contact; 4,263 were lost to follow-up and 5,341 were identified as having insufficient screening and thus being eligible for a rescue visit. However, women above 60 respond to cervical cancer screening more than younger women.

England introduced cervical cancer screening in 1988 to women of the age group 20–64 years. HPV bivalent was also introduced in 2008. In 2015 a study was carried out aimed at estimating the age-specific incidence of cervical cancer in England over the next 25 years from 2015 to 2040 in four policy scenarios: no changes to current screening coverage or vaccine uptake and HPV primary testing from 2019, changing the year in which HPV primary

testing is introduced, introduction of the nine-valent vaccine, and changes to cervical screening coverage. Developed country like England is way ahead in the prevention of cervical cancer (Castanon 2017).

Furthermore, other studies revealed that Younger women were more likely to be unaware of cervical cancer screening services while older women were more likely to decide not to be screened. Women from ethnic minority backgrounds were more likely to be unaware of screening than white women. Being in a lower social grade was associated with non-participation. Most women who do not participate in cervical cancer screening are unaware or unable to act (Marlow 2017). Another study conducted among women in Bangladesh carried out by Ferdous et al (2014) revealed that only 12% of the respondents had good knowledge of cervical cancer.

2.2 Burden of Cervical Cancer in Africa

Regionally, according to the National Cancer Prevention and treatment strategy (2018), developing countries bear the heaviest burden of cancers; about 70% of all cancers in 2008 were from low and middle income countries. In 2008 there were 715 000 new cervical cancer cases and 542000 cancer deaths in Sub-Saharan Africa. On the same note, nine out of 10 women who die from cervical cancer live in low and middle income countries, (UNIADS, 2019).

Regarding cervical cancer in Zambia, there is a high prevalence rate. A study done related to underutilization of cancer services which are freely offered at many sites contributed to the many cases of cervical cancer. The study cited that knowledge level of utilising cervical

cancer screening services is low. There were 84% who heard about screening services and yet 28% knew what it was (Zulu W, 2017).

According to a study done in Gabon Almost three-quarters of the respondents were aware of cancer of the cervix and yet 92% still demonstrated lack of knowledge of the disease. The study was compared with other studies and lack of knowledge was a key factor to uptake of cervical cancer screening. For instance, a study conducted among Gabonese women by Assoumou et al. revealed that 91.6% of the respondents had heard about cancer of the cervix.

In Nigeria, however, some studies had reported slightly lower figures as the proportion of women who are aware of cervical cancer. For example, Wright et al. reported in 2014 that only 37.2% of the women interviewed had heard about cancer of the cervix (Idowa A, Olowookere S, Fagbemi A and Ogunlaja O, 2016)

Women in Uganda are threatened by cervical cancer as it is the most frequent cancer and the leading cause of cancer-related deaths among women. Current estimates indicate that 6413 Ugandan women are diagnosed with CC annually, with 4301 deaths annually attributed to this disease. Uganda has one of the highest incidence rates for CC in the world with an age-standardized rate of 54.8 per 100,000 women, compared with 6.6 in North America and 5.5 in Australia. The age-standardized mortality rate in Uganda is 40.5 per 100,000 women, compared with an age-standardized mortality rate of 6.8 globally. Human Papillomavirus is responsible for nearly all cases of CC. The prevalence of HPV among Ugandan women has been estimated at 33.6%, highlighting the importance of secondary prevention in this population (Black 2019).

2.2.1 Knowledge Levels on Cervical Cancer Screening Among Women.

In a study conducted by Ali-Risasi, Mulumba, Verdonck, VandenBroeck and Praet (2014) on knowledge, attitude and practice on cancer of the uterine cervix among women in the Democratic Republic of Congo, it was found that awareness of cervical cancer especially the prevention and treatment is very low among the women.

According to a study done in Free State, Bloemfontein, South Africa, the uptake of cervical cancer screening is higher than the national uptake. The level of awareness on the risk factors and symptoms of cervical cancer is low, posing a need to put more emphasis on educating and creating awareness of cervical cancer among communities on risk factors, prevention measures and signs and symptoms in all the health area, (Dornatus, 2019).

Ethiopia put a strategic plan to deal with the second most common cervical cancer. This was done to reduce its incidence and mortality by 2020. Lack of knowledge and poor attitude towards the disease and risk factors can affect screening practice and development of preventive behavior for cervical cancer. A study was done to assess knowledge, attitude, practices and factors for each domain for cervical cancer among women of child bearing age in Hosanna town, Southern, Ethiopia. Two hundred seventy (46.3%) of the respondents had poor comprehensive knowledge. Only 58 (9.9%) of participants had been screened for the cervical cancer before the survey. Two hundred and three (34.8%) of participants had negative attitude (Yitagesu, 2017).

According to a study done in Somalia there were five barriers associated with cervical cancer screening lack of familiarity with cervical cancer and perceived irrelevance of cervical cancer screening, emotional barriers, practical barriers, cultural and religious concerns and mistrust in the health system. The study stated that lack of familiarity, emotional barriers such as fear of the test outcomes and embarrassment were major barriers. Practical issues prevented them from visiting the health centre such as child care.

2.2.2 Attitude of Women towards Cervical Cancer Screening Among Women.

Cervical cancer remains a major cause of morbidity and mortality among women, particularly in low-resource countries like Ethiopia. Early screening for pre-cervical cancer is a key intervention in reduction of maternal deaths (Animen 2019).

In Debre Markos town in northwest Ethiopia among women of reproductive age uptake of pre-cervical cancer screening was found to be low. A higher uptake of screening was associated with: Age, attitude, informed by health provider, visiting health institution, history of sexually transmitted infections and family history of cervical cancer. To scale up currently limited uptake of pre-cervical cancer screening, community health education should be undertaken, leading to attitude change for young women. A total of 517 women were interviewed with 100% response rate. Results revealed only 108 women 20.9% had been screened for pre-cervical cancer (Animen, 2019).

Additional research is needed to further understand and assess the effectiveness of different strategies to improve attitudes regarding cervical cancer in order to increase the uptake of screening services, particularly among less-educated women and those in hard-to-reach areas.

Little is known about women's knowledge and attitudes around cervical cancer and cervical cancer screening in the eastern part of Kenya. This semi-arid region has high poverty levels, low education levels among women of reproductive age and limited sexual and reproductive and cancer health services (Gatumo, 2018).

Other studies that were done to examine awareness and attitude of women towards cervical cancer screening in Agbowo primary health Centre in Ibadan, Nigeria. There was a positive attitude towards uptake of cervical cancer screening. Some factors that influenced uptake is lack of awareness about where to be screened, costs, attitudes of health workers and delays in hospitals. Despite the positive the study revealed that there is still poor uptake of cervical cancer screening although awareness was fairly high, (Bammeke, 2014).

Tsegaye (2018) in the study done among 380 participants with a response rate of 90%. 55.3% had a positive attitude toward cervical cancer screening. Age, year of study, school category, and income significantly associated with knowledge of cervical cancer screening. Age, year of study, religion, knowing Human papillomavirus as a cause for cervical cancer significantly associated with the attitude towards cervical cancer screening. Attitudes regarding low perceived susceptibility to cervical cancer were associated with cervical cancer screening utilization.

A study conducted in India using an in-depth questionnaire to investigate factors influencing cervical cancer screening among women, revealed a significant association between low perceived risk and utilization of screening. Indian women felt that the disease is mostly for unmarried women and those with multiple sexual partners, hence, the reluctance (Singh et.al,

2012). Similarly, a systemic review done to assess barriers to utilization of cervical cancer screening in Sub-Saharan Africa reported that cervical cancer and the screening were associated with misconceptions such as promiscuity behaviours.

2.2.3 Barriers of Cervical Cancer Screening

According to a study done by Eleanor, the most frequently reported barriers to cervical cancer screening were embarrassment, fear of the screening procedure or outcome, residing in a remote or rural area, and limited resources / health infrastructure. The most frequent facilitator was having a recommendation to attend screening. Uganda has one of the highest age-standardized incidence rates of cervical cancer in the world. The proportion of Ugandan women screened for cervical cancer is low. To evaluate barriers and facilitators to accessing cervical cancer screening, a systematic review of Ugandan women and healthcare workers done inform development of cervical cancer screening promotional and educational programs to increase screening uptake and improve timely diagnosis for women with symptoms of cervical cancer.

According to Ndejjo(2016) barriers to cervical cancer screening were negative individual perceptions 553 (64.5%) and health facility related challenges 142 (16.6%). Other respondents said they were not aware of the screening service 416 (48.5%). The independent predictors of cervical cancer screening were: being recommended by a health worker, knowing where screening services were offered, and knowing someone who had ever been screened. The prevalence of cervical cancer screening is very low in rural Uganda. Interventions to increase uptake of cervical cancer screening should be implemented so as to improve access to the service in rural areas.

Previous studies found cost of cervical cancer screening to be a critical barrier to screening, if women perceived the cost to be high. One previous study reported that women may be willing to have cervical cancer screening if employers pay for the cost of screening (Kuroki, 2012). This demonstrates an urgent need for women to be supported to act on their intention to screen. For example, in Ghana, although women play a critical role in nation building and form approximately 50% of the workforce, they are mostly involved in informal sector jobs such as trading and farming. With only 1% in administrative positions in the public sector (Fort, et.al 2011).

It was observed that Lack of information about Cervical cancer and its treatment” (Barrier of lack of knowledge and Awareness); “Embracement or shy Psychological Barrier Lack of time structural Barrier and “Lack of family support” (Sociocultural and religious barrier) were the most commonly reported among all 22 barriers. There is a need of policies advancement of Cervical cancer screening programs by focusing on aspects of accessibility, affordability, Cervical cancer education, and the necessity of screening to improve screening uptake to control the cervical cancer morbidity and mortality rate, (Devarapalli, 2018).

2.3 Burden of Cervical Cancer in Zimbabwe

Cervical cancer is one of the deadliest diseases in low income countries such as Zimbabwe, even though it is preventable. Routine screening and early treatment can prevent 8 in 10 cervical cancer cases, if the abnormalities in the cervix are identified early. HPV vaccines hold a promise in the fight against cervical cancer and there are already calls for more

genetically diverse vaccines to be used so as to cover regions affected by many different HPV subtypes.

In Zimbabwe limitations in resources, infrastructure, manpower, delays in treatment and patient knowledge play a role in the high morbidity and mortality of cervical cancer clients. Community engagement initiatives to raise awareness on cervical cancer should be established to provide education on how to prevent the development of cervical cancer, as well as promote screening for early detection (Kuguyo, Matimba, Tsikai, Magwali, Madziyire, Gidiri, Dandara and Nhachi, 2015).

According to the Human Papillomavirus (HPV) and Related Cancers in Zimbabwe report (ICO/WHO 2013), all women 15 years and older approximately 4.37 million women are at risk of developing cervical cancer. Risk factors include early age of sexual intercourse, multiple sexual partners, HIV infection, Sexually Transmitted Infections and smoking. Current estimates indicate that every year 2,270 women are diagnosed with cervical cancer and 1,451 die from the disease. These glaring statistics should worry every woman of reproductive age and indeed the community at large.

Cervical cancer is the second most frequent cancer among women in Zimbabwe. Lack of information and access to screening and treatment services contributes to the high mortality. Cervical cancer screening coverage is extremely low at 7.2%, with coverage much lower in rural areas (5.2%), as compared to the urban areas (10.8%) (ICO/WHO, 2013).

Tapera (2019) cited that there is a knowledge gap regarding the uptake of cervical cancer screening and treatment in Zimbabwe. Cervical cancer is the most commonly diagnosed cancer among women in Zimbabwe; however, access to screening and treatment services remain a challenge. Province of residence, education, occupation, marital status, income (personal and household), wealth, medical aid status, having a regular doctor, frequency of visiting health facilities, sources of cervical cancer information and knowledge of treatability of cervical cancer were not associated with cervical cancer screening and treatment respectively. Participation of women in cervical cancer screening and treatment can only be explained by religious affiliations and usage of health facilities. Strengthening of health education in communities including churches and universal healthcare coverage are recommended strategies to improve uptake of screening and treatment of cervical cancer. The current cervical cancer screening strategies especially in Zimbabwe target women older than 21 years old but this study has shown that the knowledge of the screening services and their availability is very low even among young women between the ages of 21 to 24 years.

Despite the wide-spread availability of cervical cancer prevention and screening programs in developed countries, the morbidity and mortality rates of cervical cancer in Zimbabwe are still very high. Limited resources as well as the high HIV prevalence are contributors to the high burden of cervical cancer. Limitations in resources, infrastructure, manpower, delays in treatment and patient knowledge play a role in the high morbidity and mortality of cervical cancer in Zimbabwe. The Ministry of Health needs to increase funding to expedite the availability of HPV vaccine and screening programs. The general knowledge and understanding of cervical cancer is poor in Zimbabwe, (Kuguyo, 2017)

2.4 Summary

The chapter reviewed some literature regarding uptake of cervical cancer screening by women. The demographic literature was reviewed, knowledge level of cervical cancer screening, attitudes towards cervical cancer screening and barriers towards cervical cancer screening.

CHAPTER 3: METHODOLOGY

3.0 Introduction

The Chapter describes the approaches and techniques that were used for data collection to assess the factors influencing the uptake of cervical cancer screening among women. This chapter outlines the research design, methods of sampling, data collection tools and techniques and data analysis and ethical considerations.

3.1 Research Design

Research design is the conceptual structure within which the research is conducted and it constitutes the blueprint for the collection, measurement and analysis of data (Charles, Giraudeau, Dechartres, 2009). The purpose of the research design is to outline the procedures employed by the researcher to the final analysis of data. An analytic Cross-sectional study design was used in this study. The design clearly describes the knowledge attitude and health system in relation to the uptake of cervical cancer screening among women.

3.2 Study Site

The study was conducted at Chinhoyi Provincial Hospital which receives patients from primary and secondary level of care within the province. Chinhoyi is a small town located in the Mashonaland West Province in Zimbabwe. Chinhoyi is the home for the famous tourist attraction of Chinhoyi caves with an average of over 300 000 visits per year. It has a small population of 357 823 people with the province having a population of over 1.7 million. Chinhoyi Provincial hospital is the referral hospital for the province and is situated in Chinhoyi town. The hospital has a capacity of 200 beds for in patients and a daily capacity of

an average of 70 to 100 patients. It also houses special facilities such as a theatre, imaging department, and physiotherapy.

3.3 Study Population

The population of this study covered all the women of child bearing age attending Chinhoyi Provincial Hospital's entry points and meets the eligibility criteria.

3.3.1 Inclusion criteria

All women of child bearing age who were attended to at all the entry points at Chinhoyi provincial hospital during the study.

3.3.2 Exclusion criteria

All pregnant women and all the women having their menstrual blood flow were excluded.

3.4 Sample size

Sample size is the number of patients included in the study. The survey formulae employed to get the minimum sample size was as follows:

$n = z^2pq / d^2$ where: n is the sample size

$z = 1.96$ which is the z-score at 95% Confidence Interval

p = proportion of females who knew about cancer screening in a study done in Zambia by Zulu 2017

$q = 1 - p$

d = margin of error which was set at 10%.

The sample size becomes

$$n = (1.962 \times 0.28 \times 0.72) / 0.12$$

$$n = 77.4$$

Therefore, the sample used was 78 participants.

3.5 Sampling Method

Convenience sampling was used to select the participants of the study. In convenience sampling method, the participants were selected as they came till the required number was reached. A sample of 78 participants was selected.

3.6 Data Collection Instruments

A structured interviewerguide questionnaire was developed using the Health Belief Model as a guiding framework. The variable outcome of interest being women with cervical cancer. The questionnaire had 4 sections namely social demographic data, knowledge, attitude and barriers influencing uptake of cervical cancer screening. The instrument had open and closed ended questions. The questionnaire was both in English and Shona.

3.7 Pre Testing of the Instrument

The instrument was pre-tested at Banket District Hospital on 10% of the sample size. The pre testing of the instrument was done at this site because the patients have the same characteristics with those attended at Chinhoyi Provincial Hospital. The pretesting was done to check on the validity and reliability of the instrument. Minor adjustments were made to the questionnaire after the pilot study.

3.8 Data Collection Procedure

The researcher explained the purpose of the study to the participants after which they were asked to sign the consent form and those who could not write used their thumb to sign. The interviewer-administered questionnaire on knowledge, attitudes, and perceptions concerning cervical cancer and cervical cancer screening was completed for each participant. The interviews were conducted in a private room to ensure privacy. The data collected was securely kept in a lock-up cupboard accessible to the interviewer and the supervisors only.

3.9 Data Analysis

Data analysis was based on completed administered interviews from each participant at the institution. Each administered interview was coded with a unique number to facilitate error tracking when necessary. Statistical procedures were applied to enable the researcher to organize, interpret and communicate numerical information. Information provided in the questionnaire was transcribed into a spread sheet for analysis. Statistical analysis was performed using Microsoft excel with the help of the statistician.

Logistic regression analysis was performed using odds ratios (OR) with a 95% confidence interval (95%CI). For all tests, a *P*-value of <0.05 was considered to be statistically significant. Logistic regression was employed because the outcome variable cervical cancer is binary.

3.10 Ethical considerations

Approval to conduct the study was sought from Africa University Research Ethical Committee (AUREC) which is a body that protects the rights of participants under study. Permission to conduct the study was obtained from the Medical Superintendent of Chinhoyi

Provincial Hospital. After explaining the purpose and benefits of the study, voluntary informed and written consent was obtained from each participant. The participants were free to withdraw from the study at any time they wish without any victimization. Privacy, safety, confidentiality and anonymity and no coercion was faithfully observed throughout the study.

3.11 Summary

The chapter covered the study design which was used and its appropriateness, the study setting, study population, sample size and the sampling procedure, data collection instrument, validity and reliability, pretesting, data collection procedure, analysis and organization of data and ethical consideration

CHAPTER 4: DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.0 Introduction

This chapter will look at data presentation, interpretation and analysis. Statistics were done using Microsoft excel.

4.1 Demographic characteristics

Table 4.1: Age of participants

N = 78

Statistics	Years
Range	20 – 66
Mean	46

Table 4.1 illustrates that the age range of the participants was 20 years to 66 years. The mean age was 46 years.

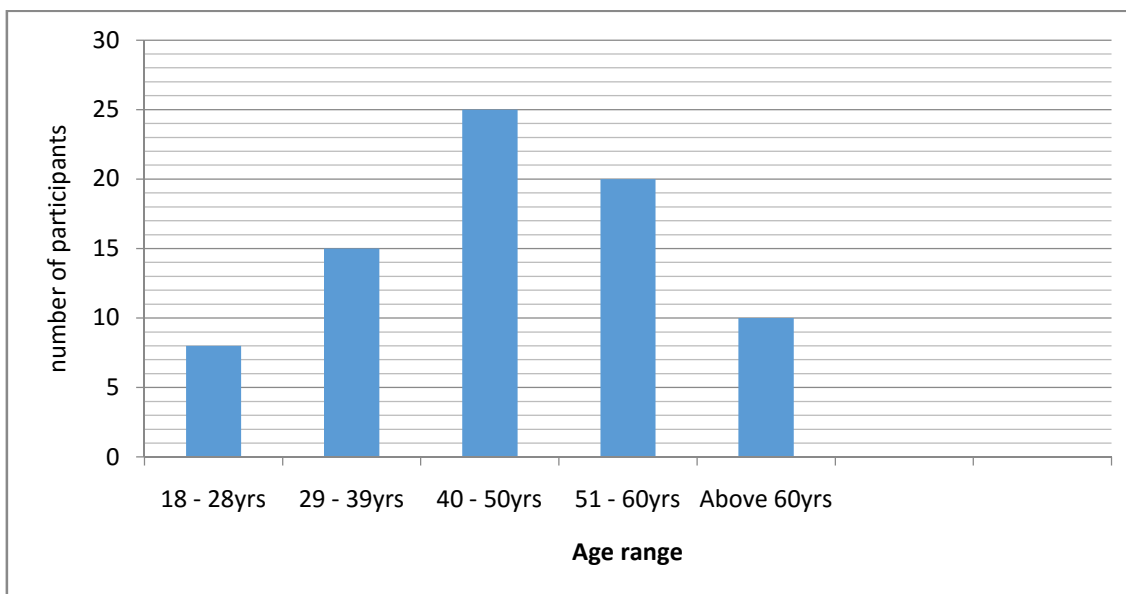


Fig 4.1: Shows age of study participants against their number

Figure 4.1 indicates age range 18 to 28 years has the lowest number of 8 participants while the majority with 25 participants was of the age range of 40 to 50 years.

Table 4.2: Marital status of the participants

N = 78

Marital status	Frequency	Percentage %
Single	15	19
Married	13	17
Divorced	30	38
Widow	20	26
Total	78	100

Table 4.2 reflects that the majority(38%) participants were divorced while 17% were married.

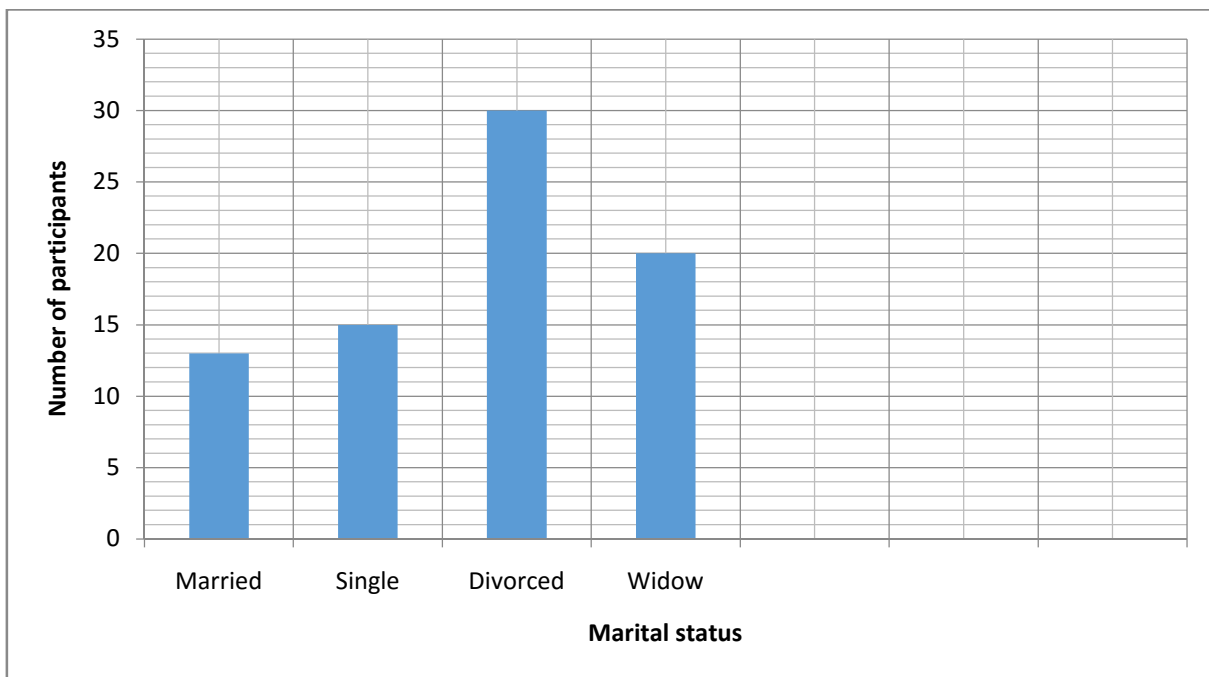


Fig 4.2: Shows different marital status of study participants.

Figure4.2 above indicates that the lowest number 13 participants were married whereas the majority 30participants were divorced.

Table 4.3: Religion of the participants

N = 78

Religion	Frequency	Percentage %
Moslem	10	13
Hindu	0	0
Christians	40	51
Apostolic sects	23	29
Others	5	6
Total	78	100

Fifty one percent participants were Christians while 6 % believed in other religion (Table 4.3).

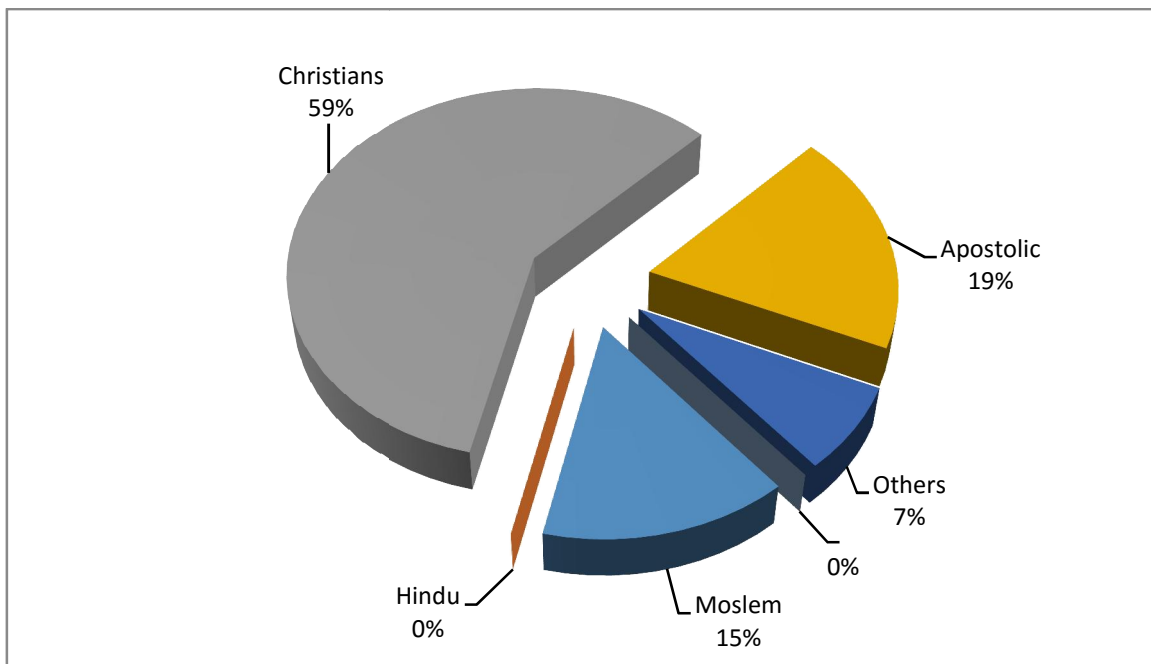


Figure 4.3: Shows study participants' religion and their number in percentages

As indicated above most of the participants at 59% were Christians with none of the participants being a Hindu and just 7% were from other religions such as African Traditional Religion and Rastafarian.

Table 4.4: Level of education of the Participants

N = 78

Level of education	Frequency	Percentage %
None	10	13
Primary	15	19
Secondary	28	36
Tertiary	25	32
Total	78	100

Eighty seven percent of the participants were formally educated while 13% had no formal education at all (Table 4.4).

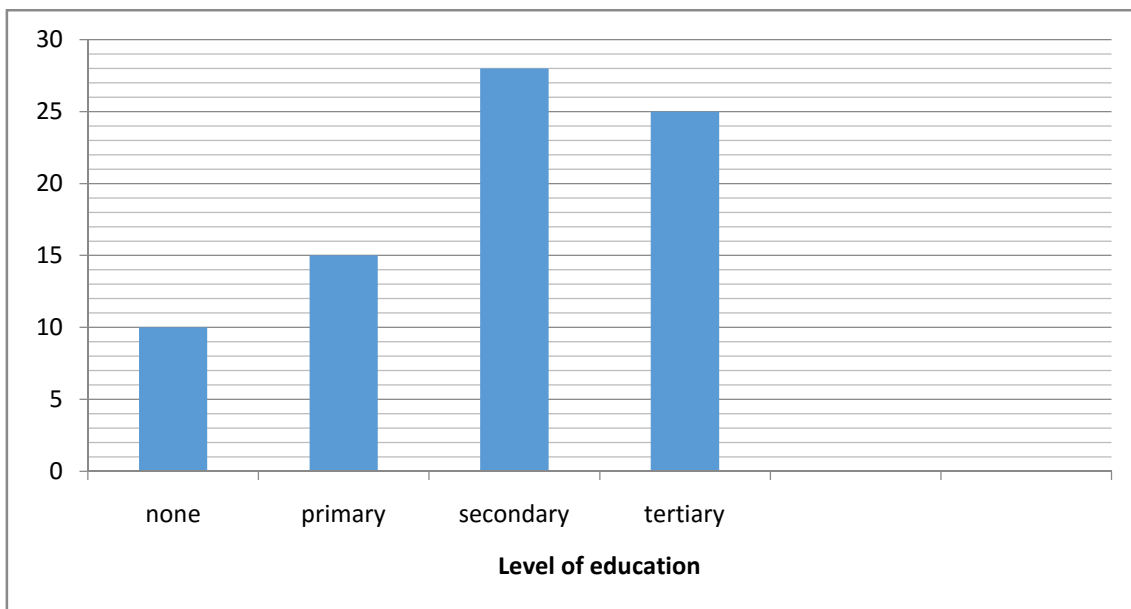


Fig 4.4: Shows educational level of study participants

The bar chart indicates that the highest number of study participants which was 28 ended their education at secondary school level while 10 of the participants never went to school. As level of education increased the number of participants in those categories tended to increase with a slight fall from secondary to tertiary education.

4.2 Knowledge regarding cervical cancer screening

Table 4.5: Source of information on cervical cancer

N = 78

Method	Frequency	Percentage %
Television	10	13
Radio	40	51
Friends	9	12
Relatives	3	4
Hospital	16	21
Total	78	100

As indicated above majority (51%) participants heard of cervical cancer through the radio followed by 21% who came to know of it via the Health care institutions and only 4% heard from relatives (Table 4.5).

Table 4.6: Shows who the participants thought were at the highest risk of being diagnosed with cervical cancer

N = 78

Group	Frequency	Percentage %
Older women	11	14
Young women	0	0
Every women	18	23
Women with multiple sexual partners	23	29
HIV positive women	26	33
Total	78	100

Table 4.6 indicates 33% of the participants were of the idea that HIV positive women were at the greatest risk of being diagnosed with cervical cancer while 29% participants thought that it women with multiple sexual partners were the most vulnerable. None of the participants was of the view that young women were at the greatest risk of developing cervical cancer.

Table 4.7: Shows what the respondents thought was the most common signs and symptoms of cervical cancer

N = 78

Symptoms	Frequency	Percentage %
Vaginal bleeding	20	26
Foul smelling vaginal discharge	18	23
Pelvic pain	15	19
Did not know	25	32
Total	78	100

Table 4.7 shows that the majority 32% of the participants did not have any idea of the signs and symptoms of cervical cancer whereas 26% believed that the most common sign of cervical cancer was vaginal bleeding. The lowest 19% participants believed that pelvic pain is the most common symptom.

4.3 Attitudes of participants towards cervical cancer screening

Table 4.8: Shows how the respondents felt (attitude) about cervical cancer and how they think about women receiving cervical cancer screening.

N = 78

Attitude	Frequency	Percentage %
Good	51	65
Bad	20	26
Did not know	7	9
Total	78	100

As shown in table 4.8 above 65% of the participants were of the idea that cervical cancer screening was good. However 26% were against the idea while 9% were undecided.

4.4 Barriers to cervical cancer screening

Table 4.9: Shows if the participants thought there was effective cervical cancer screening services at their health facilities

N = 78

Response	Frequency	Percentage %
Yes	15	19
No	45	58
Did not know	18	23
Total	78	100

The table indicates that the majority 58% participants replied that cervical cancer screening services at their health care facilities were not effective. Nonetheless 19% participants were totally opposed to this idea as they indicated that they were effective. 23% participants did not know whether their health facilities provided effective cervical cancer screening services.

Table 4.10: shows if 30 participants out of the 78 study participants who testified that they had cervical cancer screening were provided with privacy, counseling and test results explanation

Response	Frequency	Percentage %
Provided	5	17
Partially provided	25	83
Not provided	0	0
Total	30	100

Table 4.10 indicates that of the 30 who had cervical cancer screening only 17% agreed that they were provided with privacy; counseling and test results were explained. However 83% participants recorded that privacy, counseling and explanation of results was partially done.

Table 4.11: shows if participants were encountering costs during cervical cancer screening

N = 78

Costs	Frequency	Percentage %
Yes	48	62
No	30	38
Total	78	100

Sixty percent (62%) participants admitted that there were some costs associated with cervical cancer screening while 38% participants indicated that there were no costs in connection with cervical cancer screening (Table 4.11).

Table 4.12: Availability of support from partners for married women towards cervical cancer screening

Response	Frequency	Percentage %
Yes	3	23
No	10	77
Total	13	100

Of the 13 married participants 77% indicated that their husbands were not supportive towards cervical cancer screening while 23% were supportive (Table 4.12).

Table 4.13: Shows distance the respondent take to travel to the health facility

N = 78

Distance	Frequency	Percentage %
Less than 1km	22	28
1 – 2km	56	72
Above 2km	0	0
Total	78	100

Table 4.13 shows that 72% travelled a distance of 1 to 2 km to the nearest health facility while 28% participants travelled a distance of less than 1km to the health facility. However none of the participants travelled more than 2km to the health facility.

Table 4.14: Indicates the mode of transport the participants used to travel to the health facility.

N = 78

Mode of transport	Frequency	Percentage %
Walking	68	87
Bicycle	0	0
Vehicle	10	13
Others	0	0
Total	78	100

The table indicates that 87% participants walked to the health care facility with only 13% having used their own vehicles.

Table 4.15: The most common barriers to cervical cancer screening according to study participants

N = 78

Barrier	Frequency	Percentage %
Transport	8	10
Accessibility of health institution	10	13
Social problems	55	71
Cost	5	6
Total	78	100

Table 4.15 indicates the majority 71% participants pointed to social problems as a major barrier to cervical cancer screening. Very few 6% participants, attributed to cost as the major barrier to cervical cancer screening.

4.5 Conclusion

The chapter looked at data presentation, analysis and interpretation. The researcher will now move on to the next chapter.

CHAPTER 5: DISCUSSION AND RECOMMENDATIONS

5.0 Introduction

This chapter will cover summary of the study, discussion of study results and findings and the implications of low uptake of cervical cancer screening on women. Limitations of the study, recommendations and areas recommended for further studies are also highlighted.

5.1 Summary

The study sought to establish factors influencing uptake of cervical cancer screening at Chinhoyi provincial hospital. Chapter one looked at the background of the study, problem statement, and justification of the study, study objectives and research questions. Chapter two covered literature review, views by other scholars on knowledge, barriers and attitude towards cervical cancer screening was discussed. Chapter three of the research covered the study design which was used and its appropriateness, the study setting, study population, sample size and the sampling procedure, data collection instrument, validity and reliability, pretesting, data collection procedure, analysis and organization of data and ethical consideration. Chapter four covered data presentation, interpretation and analysis.

5.2 Discussion

5.2.1. Demographic data regarding uptake of cervical cancer screening on women

The study used a sample size of 78 participants with a mean age range of 46 years. The lowest number of participants fell in the married category. They only accounted for 13 (10.7%) of the total participants. This may be as a result of unsupportive partners as the study further

established. However, the number of participants improved in different categories of unmarried women as they had more control over issues concerning their health including cervical cancer screening. Most of the participants fall in the category of those who were divorced.

Most of participants were Christians; this can be attributed to the fact that in general there are more Christians in most communities in Zimbabwe than any other religions. As such this was the case in Chinhoyi province. Furthermore, Christians support programs of the ministry of health including cervical cancer screening. None of the participants was a Hindu due to their very low numbers in the province. The numbers improved with Moslems who were 10 and those of the apostolic sects who were 13.

The study also established that the behavior of seeking cervical cancer screening improved with level of education. This can be attributed to the fact that those with higher educational levels are better enlightened on cervical cancer. Only 10 (7.8%) of participants did not have any formal education, however 28 (21.84%) of the participants had reached Secondary level education.

The study further established that younger women of the ages 18 to 28 years have the lowest number of participants who come to seek cervical cancer screening at Chinhoyi provincial hospital. This may be due to immaturity as they fail to understand importance of cervical cancer screening. However, as the women become older they improve on seeking cervical cancer screening as they gain more information on the importance of cervical cancer screening. As the women go beyond the age of 60 their numbers start to drop on with regards to cervical cancer screening. This is to be expected as this age group start having multiple

health problems including arthritis making it more difficult for them to mobilize to the health institutions for cervical cancer screening. Amelia (2017) identified that age was a key factor in the uptake of cervical cancer screening.

5.2.2. Knowledge Levels on Cervical Cancer Screening Among Women

Most of the participants (22 participants) heard of cervical cancer screening through the radio this is probably because radios are mostly available in commuters, workplace and homes and it is easy to listen to the message while doing other duties like cooking and laundry. The study noted that 16 of the participants had heard of cervical cancer through the hospital. This suggests that the radio is doing much better on informing people of cervical cancer screening than the hospital. Thus, there is need for Chinhoyi provincial hospital to enhance methods on informing clients about cervical cancer screening. The study further show that relatives and friends rarely talk about cervical cancer screening as there were very few participants who had heard of cervical cancer screening through relatives and friends.

It was established in the research that most of the participants were of the idea that HIV positive were at the greatest risk of being diagnosed with cervical cancer. This is because people know that those with HIV have a low immunity and can easily get diseases. However, none of the participants was of the idea that young women were at a high risk of being diagnosed with cervical cancer. This is because they regarded this group as having a good immune system for fighting any infection including cervical cancer.

Lack of basic knowledge on cervical cancer screening was having a negative impact on the program. Most the participants accounting to 25 did not know of the signs and symptoms of cervical cancer. This may bedue to poor dissemination of information on cervical cancer

screening from the health care workers to the community. However, the most common sign which was known was vaginal bleeding and the least known was pelvic pain. This is because the participants knew that most gynecological conditions are characterised by vaginal bleeding.

5.2.3. Attitude of Women towards Cervical Cancer Screening Among Women

The study discovered that not all the participants were of the idea that cervical cancer screening was a good thing to do. Of the 78 participants 23 were of the idea that it was bad due to various factors such as religion and fear of pain. 7 participants were not even decided if cervical cancer screening was good or bad. On the other hand, majority of the participants (51) were of the belief that cervical cancer screening was good so as to correct abnormalities before metastasis.

It is important to note that majority of the participants testified that cervical cancer screening was failing because there was no effective cancer screening at Chinhoyi hospital due to different challenges such as staff shortage for the program and bad attitude of the nurses. Only 15 of the participants were of the idea that they were receiving comprehensive cervical cancer screening at their facilities. There were 18 participants who did not know if there was comprehensive cervical cancer screening at their health facilities as they lacked basic knowledge on what to expect when they come for cervical cancer screening.

The study also established that it was not always that privacy, counseling and correct results were offered. Of the 30 respondents who replied that they had received cervical cancer screening before 25 testified that they had not been provided with either privacy or counseling

or issued with correct results. This may have been as a result of pressure of work or negative attitude towards cervical cancer screening on the part of the health care provider.

5.2.4. Barriers to cervical cancer screening

Furthermore, the study established that there were at times costs associated with cervical cancer screening. 48 of the participants indicated that they would pay a consultation fee when they come for cervical cancer screening while 30 participants indicated that there were no costs involved. The research discovered that distance from to Chinhoyi hospital is having a negative bearing on cervical cancer screening. None of the participants had travelled a distance of above 2 km to the health facility for cervical cancer screening. However, most of the participants were those who lived nearer to the hospital (1 to 2km).

Since most of the participants lived near the hospital the larger number of them had walked to the facility with only 10 having used their personal vehicles. According to the participants one of the most common barriers to cervical cancer screening was different social problems ranging from marriage problems, unemployment and discrimination. Only 5 participants pointed at cost as the main barrier to cervical cancer screening.

5.3 Implications of low uptake of cervical cancer screening on women

Cervical cancer screening in women has the benefit of early detection of cancer cells before metastasis. This allows for early interventions such as surgical removal of the cells and chemotherapy. If cervical cancer is not treated early then metastasis may occur. This will result in health problems such as stress, pain, kidney failure, fistula, vaginal discharge.

Late detection of cervical cancer increases morbidity and mortality rate among women. The effects may as well have psychological and financial impacts on the individual, family and the nation at large.

5.4 Conclusions

After conducting the research, the researcher came to the following conclusions regarding cervical cancer screening at Chinhoyi hospital lack of knowledge, bad attitude of the of women towards cervical cancer screening, unsupportive partners, religious teachings and distance from the health care facility were factors hindering the uptake of cervical cancer screening.

5.5 Recommendations

In order to improve on cervical cancer screening the researcher would like to propose the implementation of the following measures:

1. There is need to conduct awareness campaigns on cervical cancer screening taking advantage of gatherings such as churches and schools to ensure reaching as many women as possible.
2. Inclusion every family member in the program of cervical cancer may also be beneficiary in terms of support. In this way even males can be given health education on cervical cancer screening so that they understand the benefits, this way they will support their partners.
3. There can be an initiative to have lectures in schools on cervical cancer screening so that young girls are well informed in accessing cancer screening services in the future and also disseminate the information of cervical cancer screening to their parents.

4. The hospital needs to involve community and religious leaders in encouraging women to go for cervical cancer screening.
5. Outreach programs can also be conducted so as to reach those who do not leave close to the health care facility and find it difficult to access cervical cancer screening services.

5.6 Limitations of the Study

The investigator is a novice in research but developed and used the research instrument for the first time. The instrument might not have yield detailed and accurate information despite having been pretested for validity and reliability. The collected data might have distorted the research result. The investigator was a student and was controlled by the university calendar, therefore might not have had adequate time to conduct the study. This might have resulted in less and undetailed information being collected which might have distorted the study results.

5.7 Dissemination of results

Results of the study will be shared with the hospital executive to be shared with other health care professionals at the facility so as to enhance cervical cancer screening services. The research submitted to Africa University for academic purposes.

5.8 Areas recommended for further study

The researcher would like to recommend further studies to be done on effects of cervical cancer on an individual and family. It will also be of benefit to study factors contributing to high incidents of cervical cancer among women.

5.9 Conclusion

The chapter addressed summary of the study, discussion, implications of low uptake of cervical cancer screening to public health, conclusions, dissemination of findings, recommendations.

REFERENCES

- Balogun, M., Odukoya, O., Oyediran, M. and Ujomu, P. (2012). *Knowledge of cervical cancer and its risk factors among women residing in two urban slums in Lagos, Nigeria*. NigMedPract, 61:74-81
- Gatumo, M., Gacheri, S., Sayed, A. (2018). *Women's knowledge and attitudes related to cervical cancer and cervical cancer screening in Isiolo and Tharaka Nithi counties, Kenya: a cross-sectional study*. BMC Cancer 18, 745 doi: 10.1186/s12885-018-4642-9
- Idowa A, Olowookere A, Fagbemi A.T &Ogunlaja O.A. (2016). *Determinants of Cervical Cancer Screening Uptake among Women in Ilorin, North Central Nigeria: A Community- Based Study*. Journal of cancer Epidemiology Volume 16<http://dx.doi.org/10.1155/2016/6469240>
- Jassim, G., Obeid, A. & Al Nasheet, H.A. (2018) *Knowledge, attitudes, and practices regarding cervical cancer and screening among women visiting primary health care Centres in Bahrain*. BMC Public Health 18, 128 doi: 10.1186/s12889-018-5023
- Nwabichie C, Manaf A., & Ismail, SB. (2018). *Factors Affecting Uptake of Cervical Cancer Screening Among African Women in Klang Valley, Malaysia*. Asian Pacific journal of cancer prevention: APJCP, 19(3), 825–831. doi:10.22034/APJCP.2018.19.3.825
- Olukemi A,Bammeke, Chizoma M,Ndikom (2014).*Women's Health Awareness and attitudes of women towards cervical cancer screening in Oyo state, Nigeria*.

Tapera, O., Kadzatsa, W., Nyakabau, A.M. (2019). *Socio-demographic inequities in cervical cancer screening, treatment and care amongst women aged at least 25 years: evidence from surveys in Harare, Zimbabwe*. BMC Public Health 19, 428 doi: 10.1186/s12889-019-6749-6 assessing the uptake of cervical cancer screening among women aged 25-65 years in Kumbo West Health District, Cameroon cites this: The Pan African Medical Journal. 2019; 33:106. doi:10.11604/pamj.2019.33.106.16975 Received: 01/09/2018

Tsegaye S, Mengistu D, Gultie T. (2018). *Knowledge and attitude towards cervical cancer screening and associated factors among female Hawassa university college of Medicine and health sciences students*. MOJ Public Health. 7(3):151-158. DOI: 10.15406/mojph.2018.07.00221

WHO, (2012) *cervical cancer*. Available at <http://www.afro.who.int/en/clustersaprogrammes/dpc/noncommunicablediseasesmanagementndm/programmecomponents/cancer/cervicalcancer/2810-cervical-cancer.htm>

WHO/ICO Information Centre on HPV and Cervical Cancer (HPV Information Centre) (2013) *Human Papillomavirus and Related Cancers in Kenya*. Summary Report 2010. [25th March 2013]. Available at www.who.int/hpvcentre.

WHO/ICO, Information Centre on HPV and Cervical Cancer (HPV Information Centre). (2013). *Human Papillomavirus and Related Cancers in Kenya*; Summary Report 2013. www.who.int/hpvcentre.

Wong, L.P. (2009). *Knowledge and Awareness of Cervical Cancer and Screening among Malaysian Women Who have never had a Pap smear: a qualitative study*. Singapore Med J, 50(1):49.

APPENDICES

Appendix A: APPROVAL LETTER FROM AUREC TO CARRY OUT RESEARCH



AFRICA UNIVERSITY
(A United Methodist-Related Institution)
INVESTING IN AFRICA'S FUTURE

**AFRICA UNIVERSITY
RESEARCH ETHICS
COMMITTEE (AUREC)**

P.O. Box 1320 Mutare, Zimbabwe, Off Nyanga Road, Old Mutare-Tel (+263-20) 69075/69026/61611 Fax (+263-20) 61785 website: www.africaun.edu

Ref: AU1178/19 28 January, 2020

Florence Muuka
C/O CHANS
Africa University
Box 1320
Mutare

RE: FACTORS INFLUENCING UPTAKE OF CERVICAL SCREENING AMONG WOMEN AT CHINHOYI PROVINCIAL HOSPITAL, ZIMBABWE

Thank you for the above titled proposal that you submitted to the Africa University Research Ethics Committee for review. Please be advised that AUREC has reviewed and approved your application to conduct the above research.

The approval is based on the following.

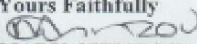
- a) Research proposal
- b) Questionnaires
- c) Informed consent form
- **APPROVAL NUMBER** AUREC1178/19

This number should be used on all correspondences, consent forms, and appropriate documents.

- **AUREC MEETING DATE** NA
- **APPROVAL DATE** January 28, 2020
- **EXPIRATION DATE** January 28, 2021
- **TYPE OF MEETING** Expedited

After the expiration date this research may only continue upon renewal. For purposes of renewal, a progress report on a standard AUREC form should be submitted a month before expiration date.

- **SERIOUS ADVERSE EVENTS** All serious problems having to do with subject safety must be reported to AUREC within 3 working days on standard AUREC form.
- **MODIFICATIONS** Prior AUREC approval is required before implementing any changes in the proposal (including changes in the consent documents)
- **TERMINATION OF STUDY** Upon termination of the study a report has to be submitted to AUREC.

Yours Faithfully

**MARY CHINZOU – A/AUREC ADMINISTRATOR
FOR CHAIRPERSON, AFRICA UNIVERSITY RESEARCH ETHICS COMMITTEE**

AFRICA UNIVERSITY
RESEARCH ETHICS COMMITTEE (AUREC)

28 JAN 2020

APPROVED
P.O. BOX 1320, MUTARE, ZIMBABWE

Appendix B

Approval Letter from Chinhoyi Hospital

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*Direct all correspondence to:
The Medical Superintendent*



Ministry of Health & Child Care
The Medical Superintendent
Chinhoyi Provincial Hospital
PO Box 17
Chinhoyi
Zimbabwe

22 October 2019

The Aure .C
Africa University
College of Health,Agriculture and Natural Sciences
Research ethics Committee
MUTARE

RE: APPLICATION FOR PERMISSION TO CARRY OUT RESEARCH AT CHINHOYI PROVINCIAL
HOSPITAL: FLORENCE MUUKA: REGISTRATION NUMBER: 160024: AFRICA UNIVERSITY

The above matter refers:

The above named applied for permission to carry out a research at our institution.

I am glad to inform you that permission has been granted, therefore we kindly request for a copy of research proposal.

Thank you for showing interest in our institution.

Yours Faithfully

A handwritten signature in blue ink, appearing to be 'Dr. T.I. Kanonge'.

Dr T.I Kanonge
A/MEDICAL SUPERITENDENT



Appendix C: Informed Consent [English]

My name is Florence Muuka, a student at Africa University doing Bachelor of Science Degree in Nursing. I am conducting a research on uptake of cervical cancer screening among women at Chinhoyi provincial hospital.

The purpose of the study is to determine factors influencing the uptake of cervical cancer screening at Chinhoyi provincial Hospital.

You and 77 others attending the entry points at Chinhoyi Provincial Hospital but have not been referred have been chosen to participate in this study. We request you to give honest and correct answers as much as possible because this information will help you understand factors influencing the uptake of cervical cancer screening among women.

Risk and discomforts

You will encounter no harm by participating in this study. The participation in this research will only take about 15 minutes of your time.

Benefits and compensation

There will be no remuneration for participating in the study. However, the study will strengthen or increase the uptake among women which will ultimately lead to the improvement of the Health care services.

Confidentiality

No names will be written on the questionnaires. No one will be able to link the information that you provide about yourself to your name. All information from this study will be treated with great confidentiality. No names will be used in data analysis.

Voluntary participation

Participation in this study is voluntary. You can decide not to participate in this study. You are free to withdraw from the study at any time without any penalty. You are also free not to answer any questions you are not comfortable to answer.

Authorisation

If you decide to participate in this study, please sign this form in the space provided below as an indication that you have read and understood. If you have any questions or concerns about this study or this consent form, you are free to contact Africa University Research Ethical Committee at this number 60075/ 1156.

Name of participant.....Signature.....Date.....

Name of witness.....Signature.....Date.....

Appendix D: Research Instrument (English)

Topic:

Factors influencing uptake of cervical cancer screening among women at Chinhoyi Provincial Hospital, Zimbabwe.

Instructions

1. No name should be written on this instrument.
2. Please answer as many questions as you can put either an x or a tick.
3. Please tick the applicable

SECTION A: DEMOGRAPHICS

1. Age

- | | |
|-------------------|--------------------------|
| a. 18 – 28 years. | ☐ |
| b. 29 – 39 years. | ☐ |
| c. 40 – 50 years. | ☐ |
| d. 51 – 60 years. | ☐ |
| e. 61 and above | ☐ |

2. Marital status

- | | |
|------------------------------------|--------------------------|
| a. Married | ☐ |
| b. Divorced /separated /cohabiting | ☐ |
| c. Widow | ☐ |
| d. Single | ☐ |

3. Level of education

- | | |
|--------------------|--------------------------|
| a. Primary level | ☐ |
| b. Secondary level | ☐ |
| c. Tertiary level | ☐ |
| d. None | ☐ |

4. Number of children.....

5. Religion

- | | |
|--------------------------|--------------------------|
| a. Christian | ☐ |
| b. Moslem | ☐ |
| c. Hindu | ☐ |
| d. Other (Specify) | |

SECTION B: KNOWLEDGE REGARDING CERVICAL CANCER SCREENING.

6. Have you ever heard about cervical cancer screening?

a. Yes

☐

b. No

☐

7. If your answer is yes to question 6, where did you hear this from?

a. Hospital

☐

b. Television

☐

c. Radio

☐

d. A Friend.

☐

e. Relative.

☐

8. What is cervical cancer screening?

.....

.....

9. Which of these categories of women are at a higher risk of developing cervical cancer

a. Older women

☐

b. Younger women

☐

c. Every woman of child bearing age

☐

d. Women with multiple sexual partners.

☐

e. HIV positive women

☐

10. What are the signs and symptoms of cervical cancer?

a. Abnormal vaginal bleeding

☐

b. Pelvic or lower back pain

☐

c. Watery, pink or foul smelling vaginal discharge

☐

d. I don't know

☐

SECTION C: ATTITUDES REGARDING CERVICAL CANCER SCREENING.

11. How do you feel about cervical cancer screening?

a. good

☐

b. bad

☐

c. I don't know

☐

12. Give a reason for the above answer

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.....

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13. What prevents you from seeking cervical cancer screening?

a. It is embarrassing

☐

b. It is for prostitutes

☐

c. My husband does not want me to have it

☐

d. I don't know

☐

14. What is your suggestion on how cervical cancer screening services can be conducted?

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.....

.....

15. What cultural beliefs make women either seek or not seek cervical cancer screening services?

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16. In your opinion, do you think it is good for women to come for cervical cancer screening, and why?

a. Good

☐

b. Bad

☐

c. I don't know

☐

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SECTION D: BARRIERS TO CERVICAL CANCER SCREENING

17. As far as you are aware, is there an effective cervical cancer screening programme at your health facility?
- a. YES ☐
- b. NO ☐
18. Have you been screened for cervical cancer?
- a. YES ☐
- b. NO ☐
19. If you were screened, were these provided, privacy, counselling, test results explained and review date communicated?
- a. Provided. ☐
- b. Partially provided. ☐
- c. Not provided. ☐
20. Are there any costs involved in cervical cancer screening at your centre?
- a. Yes ☐
- b. No ☐
21. Is your partner supportive as you access cervical cancer services?
- a. Yes ☐
- b. No ☐
22. How long does it take you to move from home to the nearest facility where you can access the service?
- a. Less than 1 hour ☐
- b. 1 hour to 2 hours ☐
- c. More than 2 hours ☐
23. What is your mode of transport to the nearest health facility where you can access screening?
- a. Walking ☐
- b. Bicycle ☐
- c. Vehicle ☐
- d. Other ☐

24. What do you see as the barrier to cervical cancer screening?

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Thank you for your participation

Appendix E: Informed Consent [Shona]

Zita rangundi Florence Muuka, mudzidzipaAfrica University ndichiita Bachelor of Science degree mukurapa. Ndirikuitatsvakurudzopamusorokuvhenekwagomarararepamuromowecheberekopachipatarachi kuruchedunumuChinhoyimunyikayeZimbabwe.

Chinangwachetsvakurudzoiyindechekuonazvikonzerozvinoitakutivanhukadzivakwanisekuvhe nekwagomarararepamuromowecheberekopachipatarachikuruchedunhumuChinhoyi.

Iwewasarudzwapakatipevamwevanhuvakurumakumimanomwenenomwevanoenda kune dhipatimendirevarwerevasinakutumidzwaasivakapindakuChinhoyi Provincial Hospital. Tinokukumbirakutiupemhindurodzakatendesekauyedzakaruramazvakanyanyasezvinobviranok utiruzivourwuruchakubatsirakutiunzwisisenzevekuongororwagomarararemuromowecheberekoko .

Ngozi uyekusagadzikana

Hakuzovinekukuvadzakwauchasangananakonekupindamuchidzidzo. Iyikutsvakurudzainobatanidzwainongotoramaminitisimakumi matatu ezuvarako.

Kubatsirwa uyekubhadhara

Pachavapasinamubairowaunowanakutengakutengachikamumuchidzidzo, Zvisineikudzidzakunosimbisakutumiranziraiyoichazopedzisiraichitungamiriramukuvandudzw akwehutanohwehutano.

Kuvanzika

Hapanamazitaachanyorwamumibvunzo. Hapanamunhuachakwanisakubatanidzaruzivorwaunopapamusoropakonezitarako. Zvosezvesezvinobvapakudzidzaizvizvichabatwanevanengezvakanvanzika. Hapanamazitaachashandiswamukuongororadeta.

Kuzvipira

Kupindiramunezvidzidzoizvizvichavanokuzvidira, kana ukasarudzakusabatanidzwamuchidzidzoichi. Iwewakasunungukakubvisakubvapachidzirocheronguvapasinacherochirango. Makasunungukakupinduramibvunzoyamunoda uyekusapinduramibvunzoyamusinaku sununguk akupindura.

Masimba

Kana ukasarudzakugoveramuchidzidzoichi, tapotatumirachimiroichimunzvimboyakapiwapasiapasechiratidzochokutiwaverengauyewakan zwisisa. Kana iweuinemibvunzo kana pamusoropekudzidza kana fomuyekubvumiramberikwakoiwewakasunungukakuonananeAfrican University yezvekutsvagakomiti pane iyinhamba60075/ 1156

Zita romubatanidzwa Chiratidzo zuva.....

Zita reuchapupu Chiratidzo zuva.....

Appendix F: Research Instrument (Shona)

Musoro

Zvikonzerozvinoitakutivanhukadzivakwanisekuvhenekwagomaraarepamuromowe chiberekop
achipatarachikuruchedunhumuChinhoyimunyikayeZimbabwe

Mirayiro

1. Hapanazitarichabvunzwamubeparino
2. Ndapotapinduraimbvunzoyakawandanepamunogona. Mekanisakunyora X kanakutika
pane mhinduroyamunoda
3. Muratidzenekunyorapanoenderananemhinduroyenyu

BANDI ROKUTANGA: CHIMIRO CHOMUNHU

1. Makore
 - a. Gumi nemasere – makumimavirinemasere. ☐
 - b. Makumimavirinepfumbamwe – makumi matatu nepfumbamwe. ☐
 - c. Makumi mana – Makumimashanu. ☐
 - d. Makumimashanunerimwe – makumimatanhatu. ☐
 - e. Kudarikamakumimatanhatunerimwe ☐
2. Mibvunzoyekuroorwa
 - a. Ndakaroorwa ☐
 - b. Takasiyana ☐
 - c. Ndakafirwa ☐
 - d. Handinakuroorwa ☐
3. Makadzidzakusvikadhanoripi?
 - a. Zvidzidzozvepasi ☐
 - b. Zvidzizvesekondari ☐
 - c. Zvidzidzozvepamusoro ☐
 - d. Handinakudzidza ☐
4. Munevanavangani.....
5. Muri veChitenderochipi
 - a. Chikirisitu ☐
 - b. ChiChawa ☐
 - ☐

- c. ChiHindu
- d. Chimwewo (tsanangurai)

BANDI RECHIPIRI: RUZIVO PAMUSORO PEKUONGORORWA GOMARARA REMUROMO WECHIBEREKO

6. Wakambonzwa here nezve kuvhenekwa kwegomarararemuromowe chibereko?
- a. Hongu ☐
 - b. Kwete ☐
7. Kana mhinduro yenyu iri hongu pamubvunzouripamusoro, makazvinzwane ziraipi?
- a. Terevhizheni ☐
 - b. Wairesi ☐
 - c. Shamwari. ☐
 - d. Hama. ☐
8. Chiichinonzikuvhenekwa kwegomarararemuromowe chibereko?
-
-
-
9. Ndevapivakadzivanowananzowirwanenjodziyegomarararemuromowe chibereko?
- a. Vanhukadzivachembera ☐
 - b. Vanhukadzivese ☐
 - c. Vanhukadzivano itabonde varume vakawanda ☐
 - d. Vanhukadzivarimuzerarekuzvara ☐
 - e. Vanhukadzi vane utachi wanahwe HIV ☐
10. Ndezvipizviratidzozvingaonekwa pane anegomarararemuromowe chibereko?
- a. Kubudakweropakuzasi ☐
 - b. Marwadzomuzasimeguvhu ☐
 - c. Mvurainegwemainobudakuzasi ☐
 - d. Handizive ☐

BANDI RETATU: MAONERO ENYU PAMUSORO PEGOMARARA REMUROMO WECHIBEREKO

11. Munofunge ima eranone zve kuvhenekwa kwegomarararemuromowe chibereko?
- a. Zvakanaka ☐

b. Zvakashata

☐

c. Handizive

☐

12. Ipaichikonzerochemhinduroyawapapamusoro

.....

.....

.....

13. Ndezvipizvingakutadzisaiikutsvagarubatsirorwekuvhenekwagomarararemuromowechebereko?

a. Zvinonyadzisa

☐

b. Ndezvepfambi

☐

c. Murumewanguhaazvitenderi

☐

d. Handizive

☐

14. Ndedzipipfungwadamungapamaereranonemaitirwoangaitwapakuvhenekwakwegomarararemuromowechebereko?

.....

.....

.....

15. Ndezvipizvetsikanemagarirozvinoitakutivanhukadzivatvage kana kusatsvagaorongwahwekuvhenekwakwegomarararemuromowechebereko?

.....

.....

.....

16. Sokuonakwenyumunofungakutizvakanaka here

kutivanhukadzivaendekunovhenekwagomarararemuromowecheberekouyenemhakayei?

a. Zvakanaka

☐

b. Zvakashata

☐

c. Handizivi

☐

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**BANDI RECHINA: ZVIRIKUKANGANISA KUTI VANHU VAONGORORWE
GOMARARA REMUROMOWECHIBEREKO**

17. Sekuzivakwenyu, pane

chirongwachekuvhenekagomarararemuromowechiberekopachitarachiripedyonemi?

- a. Hongu ☐
- b. Kwete ☐

18. Makambovhenekwagomarararemuromowechibereko here?

- a. Hongu ☐
- b. kwete ☐

19. Kana makambovhenekwazvaivezvakanzika here uyemakanamazanopamwe
,nekutsanangurirwazvabuda, nekupiwazuvarekudzokakunovenekwazvakarehere ?

- a. Zvakaitwa ☐
- b. Zvimwezvachozvakaitwa ☐
- c. Hazvinakuitwa ☐

20. Pane kubhadhariswakuriko here

kwamunoongororwagomarararemuromowechiberekopakirinikiyekwenyu?

- a. hongu ☐
- b. Kwete ☐

21. Murumewenyuanokutsigirai here pakuongororwakwegomarararemuromowechibereko?

- a. Hongu ☐
- b. Kwete ☐

22. Zvinokutorerainguvayakarebaseikubvakumbakusvikakuchipatarachiripedyonekwamunow
anarubatsirourwu?

- a. Hazvidarikiawa ☐
- b. Awarimwekusvikamaviri ☐
- c. maawamavirizvichiendamberi ☐

23. Munoshandisanziraipiyekufambakusvikapachipatarakutimukwanisekuongororwagomara
rarechibereko?

- a. Kufambanetsoka ☐
- b. Bhizautare ☐
- c. Motokari ☐
- d. Zvimwe (tsanangura).....

24. Chiichamunoonachinotadzisavanhukunoongororwagomarararemuromowechibereko?

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Ndinotendanerutsigirorwenyu