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DETERMINANTS OF UTILIZATION OF CERVICAL CANCER SCREENING SERVICES AMONG WOMEN LIVING WITH PHYSICAL IMPAIRMENTS IN HIGHFIELDS, HARARE, 2018-2019

BY

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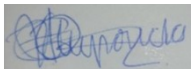
Abstract

Women living with physical impairments face challenges in accessing cervical cancer screening services. Preventive and health promotion activities like cervical cancer screening have been introduced to reduce morbidity and mortality but exclude women living with physical impairments. In Zimbabwe only 7.2% of women access cervical cancer screening services. The purpose of this study was to determine factors contributing to utilization of cervical cancer screening services by women living with physical impairments in Highfields, Harare from 2018 to 2019. An analytical cross-sectional design was used in this study. Purposive sampling method was used to select 60 women living with physical impairments and three nurses working in the VIAC unit. An interviewer-administered questionnaire was used to collect data from the participants. A self-administered questionnaire was used to collect data from the nurses to ascertain the challenges in attending to women living with physical impairments. Epi info version 7 and Microsoft excel were used to analyse data. Descriptive statistics were based on frequencies while logistic regression, odds ratios and p-values were used for analytical statistics. Forty percent were single and 62.0% had children. Eighty percent of participants with physical impairments lived with a family member. Forty four percent had attained advanced level education and above; 48.7% were unemployed and 66.7% had a monthly income of USD200 or less. Source of information on cervical cancer screening was a health worker in 38.1% of the participants. Thirty-one (51.7%) participants had adequate knowledge on cervical cancer screening as they attained a score of more than 60% on knowledge assessment. Thirty three percent of nurses mentioned communication was difficult sometimes with women living with physical impairments and 100% nurses reported that for better service provision beds with side rails were needed. One hundred percent of the nurses reported that their health institution did not have outreach services that targeted women living with physical impairments. Previous pregnancy (COR=1.7; $p<0.050$) was most significant in determining the utilization of cervical cancer screening services. All these findings reveal that there is need to empower women living with physical impairments with accurate information regarding cervical cancer screening services. Educational and outreach campaigns that target women living with physical impairments are necessary in preventing cervical cancer.

Key words: Cervical cancer; cervical cancer screening; physical impairments; women

Declaration Page

I declare that this write up is my original work except where sources have been cited and acknowledged. The work has never been submitted, nor will it be submitted to another university for the award of a degree.

BRETT D. CHIKUKWA 

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List of Acronyms and Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
AUREC	Africa University Research and Ethics Committee
HBM	Health belief model
HIV	Human Immuno-deficiency Virus
HPV	Human papillomavirus
ICF	International Classification of Function
NDSZ	National Disability Survey of Zimbabwe
Pap	Papanicolaou test
PLWD	People living with disabilities
UNCRPD	United Nations Convention on the Rights of Persons with Disabilities
USD	United States Dollars
VIAC	Visual Inspection with Acetic Acid and Cervicography
WLWD	Women living with disabilities
WHO	World Health Organization

Definition of Key Terms

Access is the ability, right, or permission to approach, enter, speak with, or use; admittance (Random House, 2020).

Cervical cancer is a malignant tumor of the lowermost part of the uterus (Kellen, Nuyens, Molleman, & Hoeck, 2020).

Disability refers to individual functioning including physical impairment, sensory impairment, cognitive impairment, intellectual impairment mental illness and various types of chronic disease (Gudlavalleti, 2018).

Human papillomavirus is a sexually transmitted virus that may cause warts in different parts of the body. Cervical cancer is attributed to Human papillomavirus (Kellen, Nuyens, Molleman, & Hoeck, 2020).

Impairment is a problem in body function or structure (Random House , 2020)

Pap smear is cellular material smeared on a glass slide for the purpose of screening for cervical cancer (Mantula & Mwisongo, 2018).

Physical impairment is disability that limits a person's physical capacity to move, coordinate actions, or perform physical activities. In this study it refers to women with missing or deformed limbs and diminished manual dexterity (RugohoI & Maphosa, 2017).

Woman is an adult female person (Merriam- Webster, 2020).

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CHAPTER 1 INTRODUCTION

1.1 Introduction

Approximately 15% of the world's population lives with some form of disability mostly affecting women, older people, children and people who are poor. Generally, people living with disability (PLWD) seek health care services more often than people without disability and have greater unmet needs. Prevention and health promotion activities rarely single out people with disability yet Article 25 of the United Nation's Convention on the Rights of Persons with Disabilities reinforces the right of persons with disability to attain the highest standard of health care, without discrimination. For instance, women with disability get screened for breast and cervical cancer less than women without disability (Oyaro, 2015) .

Zimbabwe has a population of about 7 million women and girls and the disability prevalence for females is at 10% (Zimbabwe National Statistics Agency (ZNSA), 2017) which translates to approximately 700 000 females living with disability in Zimbabwe. Cervical cancer is the fourth most common malignancy in women after breast, lung and colorectal cancer (Gabaza, Chonzi, Chadambuka, Shambira, Juru, Gombe, Tshimanga, & Mufuta, 2019).

All women are at risk of getting cervical cancer, including those with physical impairments. Estimated 528,000 cases are diagnosed to have

cervical cancer and over 250,000 women die annually from the cancer worldwide. Cervical cancer is preventable if detected early. The 10 to 20 year gap between the pre-cancer and the invasive stages offers an opportunity to screen, detect and treat the disease before its progression to cancer (Gabaza, et al., 2019). This study sought to determine the factors contributing to utilization of cervical cancer screening services by women living with physical impairments in Highfields, Harare in 2018 to 2019.

1.2 Background of the study

Globally women with disabilities are unlikely to seek cervical cancer screening which should be done to every woman aged 30 – 65 years at least once every 5 years. In developed countries there have been dramatic decreases in incidence and mortality of cervical cancer due to screening and early detection interventions (Shin, Lee, Jung, Han, Kim, Choi, Park & Park, 2018). Generally, the disabled population is vulnerable to discrimination, political marginalization and inequitable access to health care services which lead to poorer health outcomes (Vergunst, Swartz, Hem, Eide, Mannan, MacLachlan, Mji, Braathen & Schneider, 2017). Women living with disability (WLWD) report facing significantly more barriers than those without a disability in all context when accessing health care services (Gudlavalleti, 2018).

Most studies done in the United States found out that women with disabilities had lower cervical cancer screening services than women without disability. However, some studies showed that women with disabilities and those without disabilities accessed cervical cancer screening services equally. Data on cervical cancer screening in women living with disability is scarce (Shin, et al., 2018).

Women living with disability in Canada described multiple factors impeding access to health care. WLWD perceive that health care providers and policy makers have preconceived notions about PLWD's capabilities, intentions, needs, and values. This results in reduced health care access, as well as quality of health care. Studies also show that women with disabilities report lower receipt of family planning services. Evidence also documents that among PLWD, the differentials in access is adverse for women, the poor, and those lacking health insurance cover (Gudlavalleti, 2018).

In developed countries, access to health care services for persons with disabilities is often difficult while in developing countries the challenges of accessing health care services are worsened by various factors such as poverty, limited and expensive expertise and poor infrastructure (Vergunst, Swartz, Hem, Eide, Mannan, MacLachlan, Mji, Braathen & Schneider 2017). Malawi, Zambia, Mozambique and Zimbabwe are the countries with the highest cervical cancer cases worldwide. Zimbabwe has also recently started to vaccinate girls between 10 and 14 years against HPV in a bid to

prevent cervical cancer (Gabaza, et al., 2019). The HPV vaccine has proved to be a successful preventive measure in France, USA, Norway and Iceland (Kuguyo, Matimba, Tsikai, Magwali, Madziyire, Gidiri, Nhachi, Dandara & Charles, 2017).

In Ghana, cervical cancer is the most common cancer affecting women, with 50.5% attributed to human papillomavirus (HPV) types 16 and 18 and is the cause of 16% of total mortality due to cancer. The World Health Organization (WHO) in 2015, estimated additional cases of cervical cancer to be over 5,000 in Ghana with at least 3,300 deaths every year by 2025 (Ebu, Mupepi, Siakwa, & Sampselle, 2015). With such statistics, programming and policy making that support the inclusion of all women, irrespective of disability status should be implemented.

Due to the poor economic performance of Zimbabwe, standards of health care services including those of cervical cancer screening have deteriorated. Disabled women are not spared from complications of devastating health conditions such as HIV and AIDS which, makes them more susceptible to cervical cancer. Some disabled people risk developing secondary conditions such as diabetes mellitus and cancer that may further limit their functioning, quality of life, and life expectancy (Varghese, Grills, & Mathias, 2015). Approximately 2270 women are diagnosed with cervical cancer every year in Zimbabwe with a mortality rate of 64%. The high burden of cervical

cancer is mostly attributed to late presentation of the cancer poor screening, diagnosis and non-availability of treatment facilities. To add on to all these, the high incidence of HIV/AIDS augments the risk of malignancy by 10% (Kuguyo, et al., 2017).

According to Gabaza, et al, (2019), Zimbabwe cervical cancer screening is at 7.2% of all eligible women of childbearing age, 5.2% in rural areas, and 10.8% in urban areas. Out of the above statistics, there was no definite figure for those who were disabled. In 2012, it was estimated that Harare (Zimbabwe's capital city) would have a population of 950,000 women. Harare City Health Department had projected to screen 10, 000 women yearly.

In 2012, visual inspection with acetic acid and cervicography (VIAC) was adopted and offered for free of charge in the public sector in Zimbabwe. The government health institutions use VIAC alone as the cervical cancer screening method while the private sector uses both VIAC and Papanicolaou test (PAP). In 2016, it was noted that there was a 35% decrease in the number of women being screened for cervical cancer (Gabaza, et al., 2019).

1.3 Statement of the Problem

Evidence from literature suggests women living with physical impairments face distinctive barriers when accessing cervical cancer screening services globally and have poorer health outcomes compared to those without

disability (Shin, et al., 2018). Not only do the disabled women have limited access to health care services, but they are also a marginalized group when it comes to health services research (Vergunst, et al., 2017).

Women with disability have less access to cervical screening services and therefore experience unmet health care needs (Vergunst, et al., 2017). There has been very little research conducted regarding utilization of cervical cancer screening services by women living with physical impairment. In the city of Harare, disability prevalence rate for women is estimated at 9.8% (Zimbabwe National Statistics Agency (ZNSA), 2017) and out of these, 31% are physically impaired. Evidence from literature suggests that in Zimbabwe 7.2% of women access cervical cancer screening services nationally (Gabaza, et al., 2019). A study done in United Kingdom showed that only 37% of women living with physical disability access cervical cancer screening services (Kellen, Nuyens, Molleman, & Hoeck, 2020). Hence, the need for the investigator to establish the determinants of utilization of cervical cancer screening services by women living with physical impairments.

1.4 Purpose of the Study

1.4.1 Broad objective

To determine the factors contributing to utilization of cervical cancer screening services by women living with physical impairments in Highfields, Harare from 2018 to 2019.

1.4.2 Specific objectives

i. To illustrate the socio-demographic factors contributing to the utilization of cervical cancer screening services by women living with physical impairments in Highfields, Harare from 2018 to 2019.

ii. To determine the knowledge level regarding cervical cancer screening services among women living with physical impairments in Highfields, Harare from 2018 to 2019.

iii. To identify health systems related factors contributing to utilization of cervical cancer screening services by women living with physical impairments in Highfields, Harare from 2018 to 2019.

1.5 Research questions

i. What are the socio-demographic factors contributing to the utilization of cervical cancer screening services by women living with physical impairments in Highfields, Harare from 2018 to 2019?

ii. What is the knowledge level regarding cervical cancer screening services among women living with physical impairments in Highfields, Harare from 2018 to 2019?

iii. What are the health systems related factors contributing to utilization of cervical cancer screening services by women living with physical impairments in Highfields, Harare from 2018 to 2019?

1.6 Significance of the study

The findings of this study would improve the utilization of cervical cancer screening services among the disabled women particularly those with physical impairments. Since literature reports that WLWD face challenges of mobility, cost of service and others in utilizing cervical cancer screening services, the findings from this study would identify those challenges and recommendations would be made. There was need to conduct this study because there was limited data and research around utilization of cervical screening services by women living with physical impairments

The study findings would help policy and decision makers to implore evidence based and target specific interventions in programming to address the challenges of decreased utilization of cervical cancer screening services by women particularly women with disabilities. The study findings would also be used to address physical barriers to improve accessibility, utilization and safe usability of public buildings by women living with physical impairments. This is key in improving their health outcomes, quality of life and minimizing disability as physical barriers increase PLWD's participation restrictions (Moscoso-Porras, Fuhs, & Carbone, 2019). The findings from this research would also be used to propose critical changes to the infrastructure of public buildings and transportation, in line with the Convention on the Rights of Persons with Disabilities (CRPD).

1.7 Delimitation of the study

The study was done in one location, Highfields Suburb on sixty women with physical impairments and the study results would be generalized yet this might not be a representation of all women living with physical impairments. Cervical screening might have been a sensitive subject to some participants who might not have been comfortable to discuss issues around it. It was possible that participants might have become irritable, therefore there was need to keep the interviews short. Data might have been distorted due to recall bias and there might have been risk of misinterpretation.

Purposive sampling was used to select the study participants and key informants. Purposive sampling is a form of non-probability sampling in which the researcher relies on their own judgment in selecting participants. This sampling method is time and cost effective but prone to researcher bias if there are no clear criteria used to select participants. This sampling method is associated with low levels of reliability and high levels of bias.

The participant questionnaire used in this study was adopted from a previously done study (Mantula & Mwisongo, 2018) but adjusted by the researcher to meet the objectives of the study. The key informant questionnaire was designed by the researcher. Both questionnaires were used for the first time. The research instruments might not have yielded

detailed information which might have distorted study results despite pretesting the instruments for reliability and validity.

1.8 Limitations to the study

Time was limited because the study was to be completed within the period stipulated by Africa University. Data was collected hurriedly due to limited time in which the study was conducted and resulted in undetailed data which might have distorted the study results. Due to COVID-19 guidelines, close contact with participants and key informants was restricted to minimize and avoid transmission of corona virus. The researcher, being a student, had limited financial resources therefore; ability to conduct interviews virtually was restricted. Communication with participants was presented challenges sometimes due to disability and influenced quality of data collected. With the above in mind, generalization of study findings should be done with caution.

CHAPTER 2 LITERATURE REVIEW

2.1 Introduction

This chapter reviewed literature and other related studies on determining utilization of cervical cancer screening services by women living with physical impairments. The chapter addressed the theoretical framework, socio-demographic factors, knowledge levels, and health system related factors contributing to utilization of cervical cancer screening services by women living with physical impairments.

2.2 Theoretical framework

This study was based on the health belief model (HBM) which was developed in the 1950's by US public health researchers. The model was developed for the exploration of reasons behind the low participation in no-cost preventative health care programmes. HBM is based on a psychological and behavioral theory stating that the two health-related behavior components are the desire for illness avoidance (or if already ill, fighting to get well) and believing some specific health actions will help in the prevention or curing of an illness. Therefore, a person's course of action may depend on his or her perceptions of the benefits and barriers related to health behavior. The model states that there are four perceptions that influence an individual's decision to take preventive action against particular conditions, including perceived susceptibility, perceived severity,

perceived benefits, and perceived barriers (Moscoso-Porras, Fuhs, & Carbone, 2019).

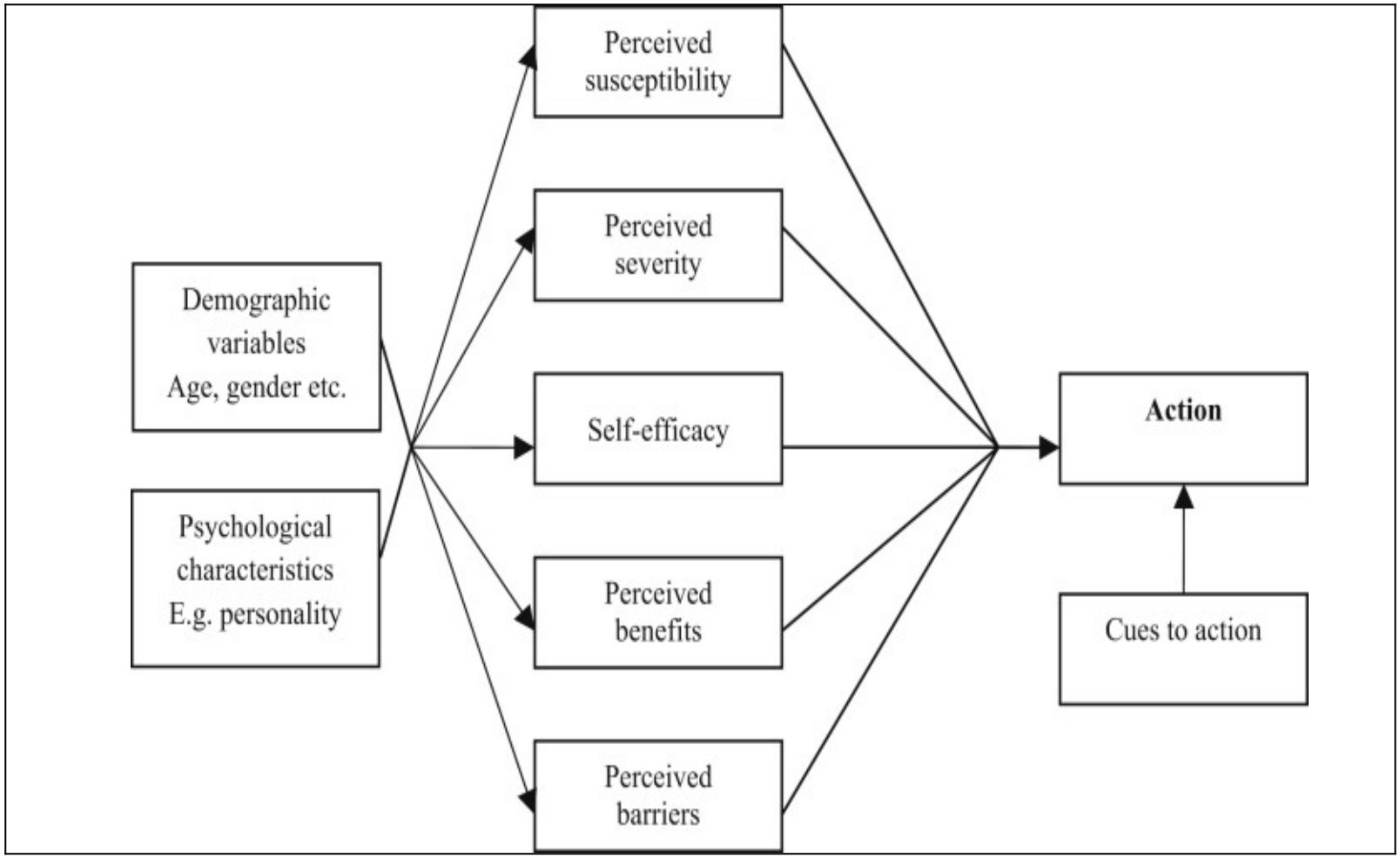

Figure 2.1: Health belief model (Forster & Walker, 2016)

2.2.1 Perceived susceptibility to cervical cancer

Perceived susceptibility is defined as one's view of his/her chance of getting a disease or illness (Moscoso-Porras, Fuhs, & Carbone, 2019). In this case, perceived susceptibility to cervical cancer is a women's perception on her risk to get cervical cancer. This perception is what will drive a woman with physical impairment to utilize cervical cancer screening services. If the woman with physical impairment believes that she is not at risk of getting cervical cancer, she is highly unlikely to get screened.

2.2.2 Perceived severity to cervical cancer

Perceived severity means the seriousness of a health condition based on an individual's analysis. In this study, it is associated with how a woman feels about the seriousness of developing cervical cancer might be or what the associated challenges are if it goes untreated, including diagnostic outcomes that may be clinically significant such as dying, becoming permanently disabled or consequences on social life that may have effect on work, social relationships and family life (Moscoso-Porras, Fuhs, & Carbone, 2019).

2.2.3 Perceived benefits to cervical cancer screening

When an individual feels susceptible to a seriously threatening health condition (perceived threat), and the perception leads to a personal change of behavior, such change is dependent on the individual's perceived benefits of taking any of the available actions in order to reduce the threat caused by the disease (Moscoso-Porras, Fuhs, &

Carbone, 2019). If women with physical impairments believe that cervical cancer screening has benefits, they will utilize the prevention strategy.

2.2.4 Perceived barriers to cervical cancer screening

Perceived barriers are an individual's perceptions of the challenges and psychological costs of the recommended action (Moscoso-Porras, Fuhs, & Carbone, 2019). Women living with physical impairments may view certain things as barriers to utilizing cervical cancer screening services. An example is a woman might anticipate having transport challenges on her way to get screened and that gets her to the decision of not going for screening.

2.2.5 Cues to action for cervical cancer screening

Cues to action refer to whatever is needed to prompt an individual into positioning herself into a status quo that will make her ready to embark on the prescribed solution (Moscoso-Porras, Fuhs, & Carbone, 2019). Such cues can be seeing or hearing an advert in the media, a friend communicating about it, health related labels on products and reminders on mobile devices. These are some of the things that will remind women living with physical impairments to utilize cervical cancer screening services.

2.3 Relevance of the theoretical Framework to the study

The above variables and their relatedness are explained below as reported by various authors.

2.3.1 Socio-demographic factors contributing to utilization of cervical cancer screening services

An individual's beliefs and perception of their disability plays a role in making the decision to seek care and treatment. According to previous studies in developing countries, the major reason for not having routine Pap tests has been women's perceptions that they are not at risk of developing cervical cancer (Kellen, Nuyens, Molleman, & Hoeck, 2020).

Seeking alternative treatments (traditional and faith based) only or along with biomedical options also affects the decision to seek health care. Some women have a poor understanding of their disability and more so of the preventive and treatment options available hence the low likelihood for one to go for cervical cancer screening (Zuurmond, Mactaggart, Kannuri, Murthy, Oye & Polack, 2019).

In some settings traditional medicine, remedies and private medicine sellers are preferred because of the potential invasiveness (surgery) of biomedical options. In some families, members of the family (breadwinner, the elders) make the decision of where to seek health or rehabilitative service not the disabled individual. In such cases disability related stigma rose and acted as a barrier at times. Some studies have shown that even though women perceive cervical malignancy as a serious health threat, the fact that the disease has no cure makes some women are less interested in doing the Pap test (Zuurmond, Mactaggart, Kannuri, Murthy, Oye, & Polack, 2019).

Some literature suggests that there is less prioritization by WLWD to seek health care due to putting other family members first. If a non-disabled family member needs medical attention, WLWD would rather have that family member attended to first then get medical attention afterwards. This decision however was not only made by the individual but at family level also. Usually this decision would be affected by the availability of money in the household. (Zuurmond, Mactaggart, Kannuri, Murthy, Oye, & Polack, 2019). In such households, the people surrounding the woman with physical impairment are not aware of the risks and benefits of cervical cancer screening.

In low and middle income countries inequities in access to health care for PWD are clouded by the deficient attention given to health in general for the entire community due to limited budget allocations (Gudlavalleti, 2018). The financial cost of accessing health care services was a barrier in the Cameroon- India Study. It included both the individual and household's knowledge and expectations about costs for treatment, the nature of economic decision-making at the household level, and opportunity costs associated with taking time off work to seek treatment. There was a low level of knowledge about the cost of treatment and a common perception that any treatment would be expensive and unaffordable (Zuurmond, Mactaggart, Kannuri, Murthy, Oye, & Polack, 2019).

The cost associated with getting to and receiving health care were regularly named as one of the main obstacles to accessing healthcare services by people with different disabilities (Mavuso & Maharaj, 2015). People with disabilities and their caretakers

often struggle with poverty due to limited access to employment, and are also less likely to access subsidies and insurance programmes which can mitigate health care costs (Mactaggart, et al., 2018). Yet people with disabilities have higher health care needs due to their impairment, and therefore more costs than others may have. If a woman with physical impairment perceives cervical cancer screening to be beneficial, she will most likely to seek that health care service.

Cultural issues affect the timeliness in utilizing cervical cancer screening services for women living with physical impairment. Values and norms in a society restrict accessibility of healthcare for WLWD. Several researches show that gender differences and racial discriminations can increase inequality in access to healthcare (Soltani, Takian, Sari, Majdzadeh, & Kamali, 2017).

Stigmatization and marginalization are significant barriers in utilizing healthcare services. These are largely imbedded in negative family and community attitudes towards people with disabilities, leading to feelings of rejection, shyness and lack of confidence. This in turn translates to negative health outcomes. People with disabilities are reported to have increased levels of stress and anxiety than people without disabilities. They are seen as worthless, and therefore are not taken to the hospital or clinic for cervical screening services by family or caretakers (Tun, et al., 2016).

Marginalization is manifested through feelings of shame by families who tend to hide family members with disabilities within the homes. Negative family attitudes also manifest in a lack of practical support for their relative with disabilities. This is

particularly so when it comes to sexual and reproductive health, as people with disabilities are often seen as asexual beings. Low self-esteem, shyness and shame can lead to people with disabilities excluding themselves from health services. The impact of internalized negative feelings about themselves and their disability is that many are too ashamed to leave the house to attend health services. People with disabilities reported not attending the health center or asking questions for fear of appearing ignorant about their own health conditions (Bassoumah & Mohammed, 2020).

Mobility related barriers revolve around lack of support from family members to go to health facilities and services. Specifically, people with visual and physical disabilities are vulnerable as they often have difficulty to access a health centre unaccompanied (Ganle, Otupiri, Obeng, Edusie, Ankomah, & Adanu, 2016). A study by Tun et al., (2016) in three countries, (Uganda, Zambia and Ghana) highlights that people with disabilities often need to travel with an assistant to help them maneuver around obstacles they encounter on the way. This brings additional complications due to the difficulty of finding someone prepared to give up their time, but also prepared to be publicly seen with a disabled person. In addition, accompaniment comes with additional transport costs.

Health centres are often a long distance from where people with disabilities live, and public transport is often inaccessible for them as well, meaning alternative modes of transportation need to be found and costed (Ganle, Otupiri, Obeng, Edusie, Ankomah, & Adanu, 2016). Similarly, roads may be poor and sidewalks and ramps missing,

terrains may be mountainous or flooded and thus make it difficult for people with disabilities to navigate the road on foot (Tun, et al., 2016).

In the study done in Ghana, road network and transportation presented problems. Mode of transport was mostly motor bikes and bicycles. The few cars that were available were on a first come first served and the struggle for buses and taxis made travelling not very easy. Disabled women highlighted that even calling for assistance when need arises was difficult due to their disability (Bassoumah & Mohammed, 2020). In addition, people with disabilities are impeded by high (public) transportation costs to get to the health facility. This is because people with disabilities also pay transport costs to have someone accompany them, may need to give a financial incentive to the person accompanying them, and/or have to hire specialized means of transport that can, for example, accommodate them and their wheel chairs (Mavuso & Maharaj, 2015).

Gabaza et al., (2019), mentions that knowledge of Pap smear is likely to be increased by age and level of education of the woman. In a study done in Peru and Bolivia it was noted that women without formal education or with primary level education were 95% less likely to have knowledge on the Pap test compared to with secondary and higher education. The more years of education a disabled woman had in the Chile study, the more likely she was to go for cervical cancer screening (Sakellariou & Rotarou, 2017).

In the study done in Gwanda, it was noted that screening for cervical cancer was lowest among multiparous women and increased as the number of children decreased (Mantula & Mwisongo, 2018). Whilst a study done in Harare, revealed that most of the women

accessing cervical cancer screening services were middle-aged, multiparous and married (Gabaza, et al., 2019). Some literature says women who are married are more likely to go for cervical screening than unmarried women. The reason for this maybe that social support from a spouse encourages utilization of cervical screening services by these women. Other studies suggest the opposite; being married is associated with low uptake of cervical cancer screening services (Gabaza, et al., 2019). In a study done in Chile, unmarried women were found to be less likely interested in cancer screening services (Sakellariou & Rotarou, 2017).

2.3.2 Knowledge of cervical cancer screening services

A national cervical cancer screening policy is not yet in place for Zimbabwe. However, cervical screening in the country involves use of Pap smear and VIAC methods to check if the cervix is normal or there may be changes happening to it. From the early 2000s screen and treat methods have been provided in public health institutions along with private institutions mainly offering Pap smear test (Mantula & Mwisongo, 2018).

Cervical cancer screening tests detect changes to the cervix like lesions that may potentially be precancerous or malignant on the cervix. Pap smear test is regarded as the gold standard for cervical cancer screening worldwide. The test is effective in lowering cervical cancer related mortality rates. The challenge with Pap smear testing is that it requires adequate health care infrastructure, special expertise, quality control and a suitably equipped laboratory. Pap smear then becomes an expensive screening test (Mantula & Mwisongo, 2018).

Other techniques used for cervical cancer screening in low to middle income countries are visual inspection with acetic acid and cervicography (VIAC), visual inspection with Lugol's iodine (VILI), cervicography, and speculoscopy (Ebu, Mupepi, Siakwa, & Sampselle, 2015). VIAC is used to screen for cervical cancer as it is cheaper and adequate as an alternative to Pap smear. The method however has a high false positive rate which leads to overtreatment. Overtreatment is advantageous in that it allows for screen and treat in a single visit in the event of a positive result (Mantula & Mwisongo, 2018).

Available research suggests that people with disabilities are often unaware that they can access healthcare services in the mainstream health centres (Gudlavalleti, 2018). People with disabilities report that information in accessible formats about HIV and the importance of testing is limited. They therefore, do not know where to go for HIV testing (Tun, Okalzr, Schenk, Esantsi, Mutale, Kyeremaa, Ngirabakunzi, Asiah, Moono, McClain-Nhlapo & Grimond., 2016). Because of this exclusion, women living with physical impairments may perceive that they are not susceptible to cervical cancer.

Women with disability access information on sexual and reproductive health from schools, peers, social media and health institutions (RugohoI & Maphosa, 2017). According to a study done in Ghana, access to health information was a barrier to accessing healthcare services. This mostly affected the women who had visual and auditory disability (Bassoumah & Mohammed, 2020).

Women who were literate but physically challenged could read displayed information and listen to said message. They did however have a challenge of restricted movement, so they needed help in moving about. When women with disability did access the information, they did not understand it. This was because it was not communicated professionally or explained properly (Bassoumah & Mohammed, 2020). Availing information to women with physical impairments about cervical cancer will help them perceive the risk and susceptibility appropriately.

A study done at Gwanda Provincial Hospital, Zimbabwe, among sexually active women without disability, showed that prior knowledge of cervical cancer was the strongest predictor of screening. The greatest barrier of utilization of cervical cancer screening services was lack of knowledge on the subject (Mantula & Mwisongo, 2018). In Zimbabwe, the majority of women who access cervical cancer screening services are those who get screened during pre and post-natal period and those who go for family planning visits. Cervical cancer screening services are also limited in Ghana due to their availability in few health facilities and patronization by referral system (Ebu, Mupepi, Siakwa, & Sampselle, 2015).

2.3.3 Health system related factors contributing to the utilization of cervical cancer screening services

Inaccessible health facilities and equipment at the health centres seems to be one of the biggest barriers to utilizing health services like cervical cancer screening services. This is particularly so for people with physical and visual impairments. Specific barriers

cited under this category include the fact that health centre buildings have no ramps, toilets or latrines are inaccessible, there is a lack of sidewalks, and elevators are non-existent or non-functional (Ganle, Otupiri, Obeng, Edusie, Ankomah, & Adanu, 2016).

Women with physical disabilities who use wheelchairs are denied access to such buildings or access them with inconveniences, especially if they are unaccompanied for example, they must get off their wheelchairs and move on the ground. A woman in Ghana reports how she almost fell off staircases during one of the hospital visits she made without being accompanied by her husband (Ganle, Otupiri, Obeng, Edusie, Ankomah, & Adanu, 2016). A study done in United Kingdom showed that 63% of 335 physically disabled women surveyed on accessing cervical cancer screening services were unable to access the service. Women who used wheelchairs cited that they need a hoist or adjustable examination bench which were not available in the health institution. Narrow corridors in health institutions were also cited as a problem because some wheelchair users could not use such narrow spaces (Kellen, Nuyens, Molleman, & Hoeck, 2020).

Concerning health care service providers, the issues that came up from most studies were on trust and acceptability. In a study done in Cameroon, people were generally positive about the quality of the local health services, including the attitudes of staff. This was reported on a local faith-based hospital in the study area, which had a good reputation. The same study done in India showed a variety of views with respect to

engagement with health care providers in government and private institutions (Zuurmond, Mactaggart, Kannuri, Murthy, Oye, & Polack, 2019).

Some studies have found that some women are unwilling to participate in Pap screening because they do not trust health care service provider and perceive the Pap smear collection process to be unpleasant. Some women feel embarrassed to be observed by a male health care provider, while others feel it unnecessary to undergo a pelvic examination for no compelling reason (Ganle, Otupiri, Obeng, Edusie, Ankomah, & Adanu, 2016).

Trust emerged as a major issue in India along with perceptions of quality of service. Lack of trust was to the extent where impoverished disabled people were willing to take out a loan to pay for a service at a private institution rather than using a free government service. These people perceived the quality of health care services provided by government institutions to be of poor quality compared with those offered at private institutions. This issue of trust appeared to be a key factor behind the non-uptake of the referrals for free services given during the survey in India. Lack of trust appeared to be related to perceptions of free government services being of poor quality, and or to previous experiences of not being treated with dignity in their contact with free public health services providers (Zuurmond, Mactaggart, Kannuri, Murthy, Oye, & Polack, 2019).

The negative attitude of healthcare staff and service providers has been extensively reported as a perceived barrier in many studies (Mavuso & Maharaj, 2015). Health care

providers appear to be insensitive, because of a lack of knowledge about the needs of people with disabilities (Kilic, Tastan, Guvenc, & Akyuz, 2019). Verbal, physical and mental abuses characterize the negative attitudes reported. Tun et al., (2016) reports blind people being ridiculed by health workers for requesting HIV testing. Some service provider's negative attitudes related to women with disabilities are also implied through practices such as forced sterilization, the use of physical restraint during labour and the use of derogatory terms such as 'crazy' to describe women with psychosocial disability. Consequently, as Ganle et al., (2016) report, this hugely undermines the morale and desire to access and use of skilled healthcare services.

Studies done in Ghana, Zambia and Uganda mentioned that healthcare providers would ignore patients with disabilities and give priority to other patients, in anticipation of communication problems (Tun, et al., 2016).The negative attitude is also related to the mind-set that service providers have towards people with disabilities in general. For example, the popular assumption is that people with disabilities are a-sexual, or simply seen as patients that are not capable of getting married and birthing. People with disabilities report that health providers need to acknowledge and accept that people with disabilities are sexual human beings and therefore they need sexual and reproductive health services (Mavuso & Maharaj, 2015).

Similarly, according to Tun et al., (2016) disabled people who come to the health centres with the support of an assistant or family member, report difficulty in maintaining confidentiality. Barriers are not only found in the direct communication

between health care staff and patients, but also in the indirect communication, such as brochures and prevention or awareness campaigns. People with visual impairments are, for example, unable to comprehend information embedded in pictures and on flip charts (Tun, et al., 2016). Prevention messages given on the radio, likewise, are inaccessible for people with hearing impairments.

2.4 Chapter Summary

From the literature, barriers for women living with physical impairments to utilizing cervical cancer screening services included perceptions around cervical cancer, individual related barriers, community related factors and health system related factors. There is a gap in health promotion and education delivered to women with physical, visual and auditory impairments.

CHAPTER 3 METHODOLOGY

3.1 Introduction

Research methodology refers to how the researcher systematically designs a study to ensure valid and reliable results that address the research objectives. This chapter addressed research design, study setting and rationale for selection, study population, sample size and sampling procedure. The chapter also highlighted data collection instruments, pretesting of instruments, data collection procedure, data analysis, dissemination of the study results and ethical considerations.

3.2 Study setting

The study was done in suburb of Highfields, Harare. Highfields has a population of approximately 36 000 people and has about 18 000 women. The researcher approached women on the Disabled Women's Support Organisation register, who stayed in Highfields in 2018 to 2019. Key informants will be selected from Highfields Clinic, which is one of the nine Harare City Health Department Clinics (Zimbabwe National Statistics Agency (ZNSA), 2017).

3.3 The Research Design

The study used an analytical cross-sectional design to explore the determinants of utilization of cervical cancer screening services by women living with physical impairments in Highfields, Harare from 2018 to 2019. A cross sectional research design involves looking at data from a population at a specific point in time and can be used to describe characteristics that exist in a population. Use of the cross-sectional design was

appropriate for this study because the design is quick to conduct and allowed for multiple variables to be studied at the same time. Both qualitative and quantitative approaches were used in this study. The qualitative method gave large volumes of data and a better understanding of the world of participants. The quantitative method was appropriate for this study as it ensured the collection of data in the form of standard responses by use of closed-ended questions.

3.4 Study Population and Sampling

3.4.1 Study Population

The study population included women living with physical impairments in who lived in Highfields and health care workers (VIAC nurses) involved in cervical cancer screening at Highfields Clinic.

3.4.2 Sample Size

Sample size was calculated at 95% Confidence Interval, and an absolute precision of 5% was required for the study to reach a screening uptake of 37%. The required sample size of 59 women living with physical impairment was calculated by estimating proportion of a known population. The known population was that of 70 physically impaired living in Highfields who were on the register of the Disabled Women's Support Organisation register. The formula below was used:

n = Expected sample size

p= the proportion of women living with physical impairments utilizing cervical cancer screening services.

q= 100-p

z= 1.96

d= the precision of the estimate, which is 5%

N = Population

$$n = \frac{Z^2_{\alpha/2} Np(1-p)}{d^2(N-1) + Z^2_{\alpha/2} p(1-p)}$$

$$n = \frac{1.96^2 x\ 70\ x\ 0.37(1-0.37)}{0.05^2(70-1) + 1.96^2 0.37(1-0.37)}$$

n = 58.7

n = 59 women living with physical impairment

Participants were sampled using purposive sampling. Women living with physical impairments were selected from the database of the Disabled Women's Support Organization. Snowballing was also be used to identify more women in Highfields who were eligible to participate in the study.

Purposive sampling was used to enroll staff involved in cervical cancer screening (VIAC nurses) into the study. Three nurses were interviewed because they were the

only staff members who worked in the cervical screening department between 2018 and 2019.

3.4.3 Inclusion and Exclusion Criteria

The inclusion criteria for participants for this study included:

- Women living with physical impairment.
- The participant were to be 18 years and above and lived in Highfields between 2018 and 2019.
- Healthcare workers: nurses who worked at Highfields Clinic between 2018 and 2019 and were involved in cervical cancer screening.

The exclusion criteria for participants for this study included:

- Women living with physical impairment who are below the age of 18 years and did not live in Highfields between 2018 and 2019.
- Women living with physical impairment who could not consent to participate in the study.
- Healthcare workers: nurses who were not involved in cervical cancer screening and did not work at Highfields Clinic between 2018 and 2019.

3.5 Data Collection Instruments

Self-administered questionnaires were used to collect data from eligible participants**.** The questionnaire was semi structured; it had open ended and closed ended questions. Electronic informed consent forms and questionnaires were used to collect data but if need arose paper based informed consent forms and questionnaires were used instead.

COVID-19 infection prevention procedures were followed. The informed consent forms were sent electronically and upon return the questionnaire was sent to the participant. Where this practice was impossible, a paper based questionnaire was used to collect data.

Self-administered questionnaires were used to collect data from key informants who were the health care staff involved in cervical cancer screening. The questionnaires were semi structured with open ended and closed ended questions. Both electronic and paper based questionnaires were used to collect data from key informants.

All data collection procedures were done in line with COVID-19 restriction guidelines. Physical distancing, sanitising and wearing of masks were practised throughout.

3.6 Pretesting of instruments

Pretesting of instruments was done on five randomly selected physically disabled women from the Disabled Women's Support Organisation register. This was done to check for validity and reliability of the questionnaire.

3.7 Data Collection Procedure

Data collection was done in Highfields. Electronic informed consent forms and questionnaires were sent to participants who had the capacity to access them on electronic devices. The researcher would send the documents on email or social media platform. Only after returning the signed informed consent would the researcher send to

the participant the electronic self-administered questionnaire. The participant would be asked to return the completed questionnaire within 48 hours.

Participants who required paper-based questionnaires were given by the researcher upon visiting their household and carried out the interview. The participants were required to sign the informed consent form to prove that they had read and understood it before completing the questionnaire. All paper based questionnaires were completed within 48 hours in privacy. Data was collected over a period of a month.

COVID-19 safety precautions were taken throughout the data collection process; the researcher and the study participants wore face masks appropriately covering the nose and mouth, practiced physical distancing of 1 meter apart and used hand sanitizer when necessary.

Regarding data collection from the key informants, informed consent forms were sent electronically via email or social media platforms to the key informants. After signing the informed consent forms, the questionnaires were sent electronically via email or social media platforms. The researcher encouraged the key informants to send back the informed consent forms and completed questionnaires within 48 hours. Key informants incapacitated to complete the questionnaire electronically were proved with a paper-based questionnaire instead. Data was collected from key informants over a period of two weeks.

COVID-19 safety guidelines were practiced throughout the data collection process. The researcher, key informants and participants wore face masks, practiced physical distancing and used hand sanitizer when necessary. The researcher sanitized her hands and the participant's before and after handling forms. Collected data and informed consent forms were stored in a lockable cabinet in the researcher's home. Only the researcher had access to the cabinet.

3.8 Organization and Analysis of Data

The collected data was reviewed and verified by the researcher to ensure completeness before being analyzed. To simplify data entry, some questions were coded. Data frequencies and means were generated using Epi info version 7.3.2.1 and Microsoft Excel and used for descriptive statistics. Logistic regression was done for analytical statistic with Odds ratios and p-values used to describe associations between variables. Significance of association was measured by a p-value less than 0.05. Tables, charts and graphs were used to present data followed by narratives.

3.9 Ethical Considerations

Permission to carry out this study was sought from Africa University Review Ethics Committee (AUREC), a body that protects participants under study. Approval to conduct the study at Highfields Clinic was obtained from the Director of Harare City Health Department.

Since the study dealt with women from a vulnerable population who might have not be able to protect them, it was important to take precautions during and after the data collection process. Permission to carry out this study was sought from Disabled Women's Support Organization in order to ensure protection of the rights of women who participated in the study. Participation in the study was voluntary; any participants who wished to withdraw from the study did so any time they wished without any prejudice. Confidentiality, privacy, anonymity and no coercion were observed throughout the study. Informed consent and questionnaires were made available in English and Shona (the local language) to ensure that the participants understood about the study.

3.10 Chapter Summary

The chapter highlighted the research design, study setting, study population and rationale for selection of the study sample, sample size and sampling procedure. Data collection instruments, pretesting of the instruments, data collection procedure, analysis, dissemination of the study results and ethical considerations were also addressed.

CHAPTER 4 DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction

The results of the study are presented, analysed and interpreted in this chapter. Descriptive statistics on socio-demographic characteristics of the study participants will be presented. Results of analytical statistics will be presented in form of tables and graphs. The researcher will interpret the result to give meaning on the outcomes of the statistical analyses.

4.2 Data Presentation and Analysis

4.2.1 Socio-demographic Factors of the Participants

Table 4.1: Socio-demographic Factors Contributing to the Utilization of Cervical Cancer Screening Services by the Participants

Socio-demographic Factor	**Utilized cervical cancer screening services (No) n=39**	**Utilized cervical cancer screening services (Yes) n=21**	**Total (N=60)**
	Frequency (%)	**Frequency (%)**	**Frequency (%)**
Age (Years)			
Less than 20	2 (5.1)	0 (0.0)	2 (3.3)
20 – 29	21 (54.6)	3 (14.2)	24 (40.0)
30 – 39	11 (28.2)	15 (71.4)	26 (43.3)
40 – 49	4 (10.3)	2 (9.5)	6 (10.0)
50 – 59	1 (2.6)	1 (4.8)	2 (3.3)
Marital Status			
Divorced	1 (2.6)	0 (0.0)	1 (1.7)
Married	16 (41.0)	13 (61.9)	29 (48.3)
Separated	0 (0.0)	2 (9.5)	2 (3.3)
Single	21 (54.6)	3 (14.2)	24 (40.0)
Widowed	1 (2.6)	3 (14.2)	4 (6.7)

Housemates			
Alone/None	8 (20.5)	3 (14.2)	11 (18.3)
Boyfriend	1 (2.6)	0 (0.0)	1 (1.7)
Children	2 (5.1)	2 (9.5)	4 (6.7)
Husband	16 (41.0)	13 (61.9)	29 (48.3)
Parent	9 (23.1)	1 (4.7)	10 (16.7)
Relative	3 (7.8)	2 (9.5)	5 (8.3)
Education level			
Primary	1 (2.6)	2 (9.5)	3 (5.0)
Ordinary	21 (54.6)	9 (42.9)	30 (50.0)
Advanced	10 (25.6)	7 (33.3)	17 (28.3)
Tertiary	7 (18.0)	3 (14.3)	10 (16.7)
Employment			
Employed	10 (25.6)	7 (33.3)	17 (28.3)
Self employed	10 (25.6)	7 (33.3)	17 (28.3)
Unemployed	19 (48.7)	7 (33.3)	26 (43.3)
Monthly income / USD			
0- 200	26(66.7)	11 (52.4)	37 (61.7)
>200- 400	7 (18.0)	3 (14.3)	10 (16.7)
>400 – 600	2 (5.1)	2 (9.5)	4 (6.7)
>600- 800	0 (0.0)	1 (4.8)	1 (1.67)
>800	0 (0.0)	1 (4.8)	1 (1.67)
Varies	4 (10.3)	1 (4.8)	5 (8.3)
Prefer not to disclose	0 (0.0)	2 (9.5)	2 (3.3)
Previous pregnancy			
No	22 (56.4)	1 (4.8)	23 (38.3)
Yes	17 (43.6)	20 (96.0)	37 (61.7)
Number of children			
0	22 (56.4)	1 (4.8)	23 (38.3)
1	8 (20.5)	11 (52.4)	19 (31.7)
2	7 (18.0)	5 (23.8)	12 (20.0)
3	2 (5.1)	4 (19.1)	6 (10.0)
Medical Aid			
No	22 (56.4)	12 (57.1)	34 (59.7)
Yes	17 (43.6)	9 (42.9)	26 (43.3)

A total of 60 study participants were interviewed and they reported living in Highfields in 2018 and 2019. Table 4.1 above summarizes the socio-demographic characteristics of the participants stratified by having utilized cervical cancer screening services or not. The ages of the participants ranged from 19 to 56 years. The median age was 32.5

years, modal age was 38 years and the mean age was 32 years. A percentage of 86.7 (n=52) of the participants were below the age of 40 years.

Twenty nine (48.3%) participants were married and 40.0% were single. Regarding who the participants lived with (housemates), 76.9% lived with some member of their family. Education was classified into four categories namely primary, ordinary, advanced and tertiary levels. Primary level was the least of the four categories and tertiary was the highest level of education. Fifty six (95.0%) of the participants had attained Ordinary level education or more and 5.0% had primary education only.

Ten (28.3%) participants reported that they were employed. When asked about their monthly income, participants indicated incomes within a range of 0 - 1000 United States dollars. The participants had an average monthly income of USD133.00.

Participants were asked if they had ever been pregnant and 61.7% indicated that they had been pregnant before. Twenty three (38.3%) had no children while 18 (30.0%) had two or more children. Thirty four (56.7%) participants were not on medical aid.

Table 4.2: Logistic regression outputs for socio-demographic factors contributing to the utilization of cervical cancer screening services

Variable	Odds Ratio	95% CI	P-Value
Age			
Less than 20	1.0	0.9-1.1	0.432
20 – 29	0.7	0.2-2.8	0.695
30 – 39	0.9	0.8-5.6	0.143
40 – 49	0.9	0.4-2.7	0.836
50 – 59	0.7	0.3-2.8	0.792
Marital status			
Divorced	1.0	0.8-2.5	0.188
Married	1.4	0.6-4.0	0.058
Separated	1.5	0.5-4.4	0.429
Single	1.5	0.5-4.4	0.425
Widowed	2.5	0.8-5.5	0.140
Housemate			
Alone/None	1.0	0.7-1.7	0.606
Boyfriend	0.9	0.6-6.4	0.251
Children	0.6	0.4-1.9	0.688
Husband	1.4	0.3-1.6	0.386
Parent	0.7	0.4-5.0	0.583
Relative	1.1	0.5-3.2	0.791
Employment			
Employed	1.0	0.4-1.7	
Unemployed	1.2	0.6-2.9	0.544
Monthly income/USD	1.0	0.6-3.0	0.885
Previous pregnancy (Yes/No)	17.3	1.0-3.4	0.050**
Number of children			
<2	1.00	0.1-0.8	0.357
>2	0.77	0.2-0.8	0.683
Medical aid (Yes/No)	1.26	0.3-1.7	0.749

Of the nine socio-demographic characteristics analyzed, only “previous pregnancy” was statistically significant in contributing to the utilization of cervical cancer screening services with a p-value of 0.050.

4.2.2 Knowledge Levels Regarding Cervical Cancer Screening Services among Participants

Participants were asked questions to determine their knowledge on cervical cancer and cervical cancer screening. Fifty two (86.7%) had heard of cervical cancer, 34 (56.7%) had heard of Pap/VIAC, 21 (35.0%) had had Pap/VIAC done and 54 (90.0%) responded that cervical cancer does cause death.

Table 4.3: Knowledge of participants on cervical cancer screening

	Strongly Disagree	**Disagree**	**Agree**	**Strongly Agree**
	Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)
Knowledge of cervical cancer information				
Symptoms	12 (20.0)	10 (16.7)	17 (28.3)	21 (35.0)
Birth*	5 (8.3)	19 (31.7)	28 (46.6)	8 (13.3)
Intercourse	15 (25.0)	8 (13.3%)	30 (50.0)	7 (11.7)
Risk awareness	10 (16.7)	20 (33.3%)	16 (26.7)	14 (23.3)
Treatment*	3 (5.0)	11 (18.3%)	36 (60.0)	10 (16.7)
Prevalence *	12 (20.0)	14 (23.3)	23 (38.3)	11 (18.3)

*Birth- having given birth predisposes to cervical cancer; ✶ treatment is effective if cancer is detected early, ✯prevalence: cervical cancer is one of the most common cancers among women.

Thirty eight, (63.3%) participants concurred that if they did not symptoms of cervical cancer, they did not need a Pap/ VIAC done. A total of 36 (60.0%) participants reported that if one has not had children, there is no need for them to get a Pap/VIAC done. The majority (61.7%) of the participants indicated that if one did not have intercourse, a Pap/VIAC was not need. Half (50.0%) of the participants revealed that they were at risk

of developing cervical cancer. Forty six participants (76.7%) illustrated that cervical cancer can be treated if detected early (Table 4.3).

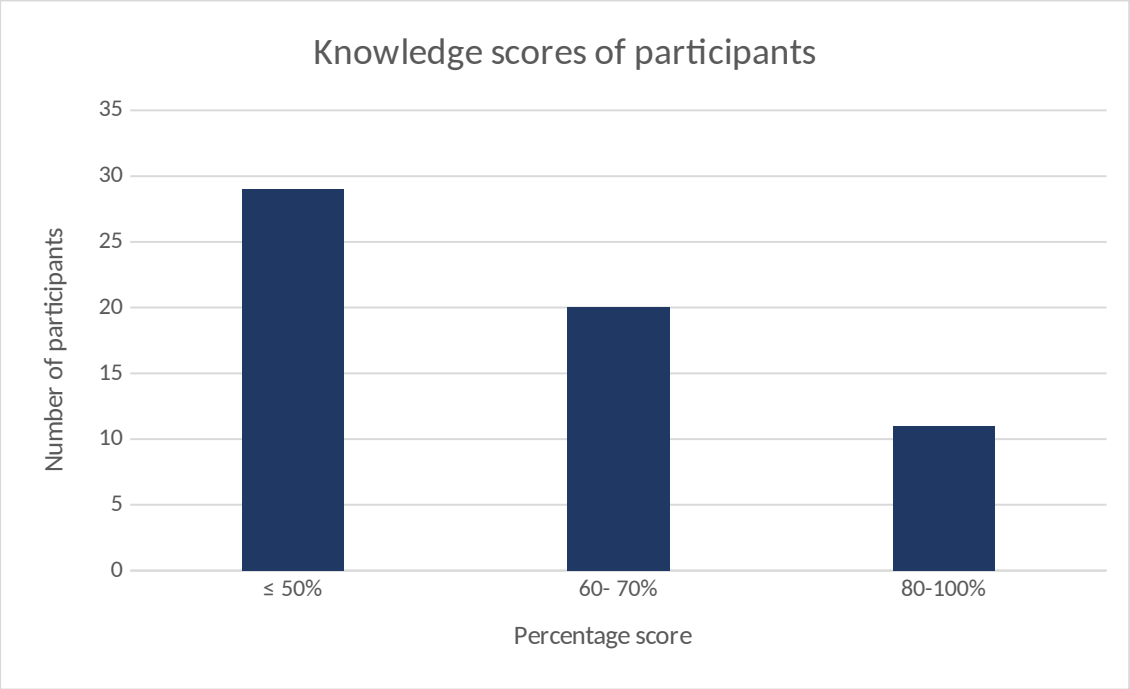

Figure 4.1: Knowledge levels of women living with physical impairments

Thirty one (51.7%) participants attained a score of more than 60% while 48.3% attained a score below 60% as shown in figure 4.1 above. A scoring system, where a correct answer attracted a score of one and a wrong response or "I don't know" attracted a score of zero was used. The scores were expressed as percentages and Bloom's cut-off point was employed to classify knowledge of cervical cancer screening into three levels: low (< 50%), moderate (60–70%) and high (80–100%). The researcher then re-stratified the knowledge score into adequate (having a % score of ≥60%) and inadequate knowledge of cervical cancer screening (having a % score of < 60%).

Table 4.4: Responses to utilization of cervical cancer screening services

n = 21

	Frequency (%)
Previous Pap smear	
< year	9 (42.9)
2 years ago	2 (9.5)
3 years ago	5 (23.8)
> 4 years ago	5 (23.8)
Source of information	
Doctor/ midwife/ nurse	8 (38.1)
Family members	6 (28.6)
Friend/neighbour	2 (9.5)
Media	4 (19.1)
Self-refer	1 (4.8)
Never had Pap smear	
Afraid	2 (5.1)
Embarrassed	2 (5.1)
Ignorant	26 (66.7)

Twenty one (35.0%) participants said that they had had a Pap/ VIAC done. Of the 21 participants who had a Pap/ VIAC done, ten (47.6%) indicated that they had VIAC done more than two years ago. Eight (38.1%) participants stated that a family member, friend or neighbor had told them about the cervical cancer screening.

Thirty nine (65.0%) participants indicated that they had never had a Pap/ VIAC done. The most common reason of not getting Pap/VIAC was not knowing about Pap/VIAC which was cited by 26 (66.7%) participants.

4.2.3 Health System Related Factors Contributing to Utilization of Cervical Cancer Screening Services by Participants

Table 4.5: Health system related questions for participants

(N = 60)

	Frequency (%)
Type of Mobility	
Assisted: bus	1 (1.7)
Assisted: drive	4 (6.7)
Assisted: wheelchair	6 (10.0)
Bus	11 (18.3)
Drive	1 (1.7)
Use wheelchair	6 (10.0)
Walk	31 (51.7)

Forty nine (81.7%) participants highlighted that they visited to the clinic on their own while 11 (18.3%) they needed assistance to get to the clinic.

Out of the 21 participants who had had Pap/ VIAC done, 1 (1.7%) reported that they had challenges moving around the clinic. Seventeen (81.0%) cited that the staff was accommodating. The 21 (35.0%) participants who had had Pap/VIAC done reported that information on cervical cancer screening had been availed to them in a format that they understood.

A total of three (VIAC) nurses (key informants) who worked at Highfields Clinic between 2018 and 2019 were interviewed. They all had more than three years of working at Highfields Clinic. These three nurses were aware that women living with physical impairments are at risk of developing cervical cancer and capable of having sexual relations.

The nurses were asked for challenges they faced when women living with physical impairments came for cervical cancer screening services and one (33.3%) nurse mentioned positioning the woman on the bed. Two (66.7%) nurses cited that they have had to help women living with physical impairment move around the clinic to get to and from the cervical cancer screening section. One (33.3%) nurse mentioned that communication with women living with disability was difficult sometimes.

All three (100.0%) nurses indicated that for better provision of cervical cancer screening services to women living with physical impairment beds with side rails were needed in order to support the women when they get onto the bed. Wheel chairs and ramps should be provided so that women living with physical impairment can move around the clinic. Training in providing cervical cancer screening services to women living with physical impairment was also cited as a recommendation required improving the service delivery.

4.3 Chapter Summary

This chapter reported the results from the interviews done with the participants and key informants. The study results were presented in form of tables, graphs and narratives.

CHAPTER 5 DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The researcher gives the discussion of the study findings, conclusions and recommendations. Suggestions on conduction of further studies are also given.

5.2 Discussion

5.2.1 Socio-demographic Factors Contributing to the Utilization of Cervical Cancer Screening Services by the Participants

The study aimed to determine the socio-demographic factors that contributed to the utilization of cervical cancer screening services by women living with physical impairment. Age, marital status, monthly income, number of children, educational level, employment status, who participants lived with and having medical aid have no significant association with the utilization of cervical cancer screening services by women living with physical impairments.

Gabaza et al., (2019), reported that married women are more likely to go for cervical cancer screening than unmarried women. This was attributed to social encouragement given by the spouse. The study results revealed that 81.4% of the women who accessed cervical cancer screening services were married. This study however found that 21.7% of the women who utilized cervical cancer screening services were married.

Being pregnant (gravidity) at some point in life is the only socio-demographic factor that determined the utilization of cervical cancer screening services by women living

with physical impairment. This might be due to the fact that when women attend ANC and post-partum visits, they are given information on their reproductive health.

In this study, education was not a contributing factor to the utilization of cervical cancer screening services. Nineteen women (31.7%) with ordinary level or more had utilized cervical cancer screening services. This is contrary to what Gabaza et al., (2019), reported on a similar study on women without physical impairments. In that study it was reported that women with professional education were three times likely to utilize cervical cancer screening services than those with primary education only. Education was the only sociodemographic factor that was a significant contributor to utilization of cervical cancer screening services.

5.2.2 Knowledge Levels Regarding Cervical Cancer Screening Services among Participants

The majority (86.7%) participants mentioned that they had heard of cervical cancer and Pap/VIAC of cervical cancer. The finding shows that several strides have been taken to raise awareness regarding cervical cancer in Zimbabwe. Information dissemination on cervical cancer has been done through various media such as radio, television and even campaigns. It is also likely that women living with physical impairment got information from people around them like friends and family. RugohoI & Maphosa (2017), did a study that showed that women living with disability get information from social media, friends, family and church.

Few (35%) participants had utilized cervical cancer screening services. The finding reveals that few women living with physical impairment have cervical cancer screening done. This finding concurs with the findings from a study done in United Kingdom which revealed that 37% of physical impaired women utilize cervical cancer screening services (Kellen, Nuyens, Molleman, & Hoeck, 2020). Women living with physical impairment were asked if cervical cancer causes death and the majority (90%) said that it did. This finding is a reflection that these women did appreciate that cervical cancer was a very serious condition that required measure to be implemented in order to prevent it. The remaining substantial number 10% who thought cervical cancer did not cause death needed to be educated more on the condition.

The perception that one has about one's health or susceptibility to a health condition contributes to them utilizing a healthcare services, in this case cervical cancer. Some of the knowledge questions that women living with physical impairment were asked also showed their perceptions. Many (63.3%) participants living with physical impairment believed that without symptoms of cervical cancer there was no need to get screened. This finding suggests that cue to action of some women is getting the symptoms first which then prompts them to seek appropriate help (Moscoso-Porras, Fuhs, & Carbone, 2019).

The belief mentioned above is very wrong because most cancers start giving symptoms when they have already progressed and medical interventions may not be as effective in such instances. Cervical cancer has a 10 to 20 year gap between the pre-cancer and

invasive stages which offers an opportunity for prevention, detection and treatment, if one seeks medical attention early (Gabaza, et al., 2019).

When one perceives they are susceptible to a health condition they will seek further health care. Half, 30 (50%) participants perceived that they were at risk of developing cervical cancer. The finding shows that a big number of women living with physical impairment think that they are not at risk of developing cervical cancer. Several studies in developing countries cited the major reason for not having routine Pap tests as the women's perceptions that they are not at risk of developing cervical cancer (Moscoso-Porras, Fuhs, & Carbone, 2019).

Though the majority (51.7%) of participants had adequate knowledge (60% score or more), some of them had inaccurate information about cervical cancer screening services and cervical cancer. Dissemination of proper and accurate information is recommended because it will help women leaving with physical impairment make better decisions on their health. Few (20.0%) participants reported getting awareness about cervical cancer screening from a health care professional (doctor or nurse) and media. The finding indicates that few women living with physical impairment receive correct and accurate information regarding cervical cancer screening. RugohoI and Maphosa (2017), mentioned in their study findings that women living with disability have restricted access to information.

The finding reflects that there is restricted access to information as some (15.0%) of the participants cited getting information from friends, family and researching on their own.

The rest (65%) of the participants had not utilized cervical cancer screening services so they had received inadequate or no information on cervical cancer screening services. Sakellariou and Rotarou (2017), highlighted that in some settings women were more likely to get information from the poeople around them hence the importance of equipping everyone with correct information.

Getting information from anywhere and everywhere presents challenges of getting inaccurate and insufficient information. Some of the reasons cited for not getting screened for cervical cancer included fear of getting the procedure done (5.13%) and embarrassment to get a genital exam (5.13%). This finding suggests lack of adequate information regarding cervical cancer screening among women with physical impairment. There is need, therefore, to educate the women regarding cervical cancer screening. With education and awareness on how the procedure is done and why, women living with physical impairment may be more forthcoming in getting screened for cervical cancer. A study done at Gwanda Provincial Hospital, Zimbabwe, found the greatest barrier of utilization of cervical cancer screening services to be lack of knowledge on the subject (Mantula & Mwisongo, 2018).

Mobility challenges have been reported by several studies as barriers to utilization of cervical cancer screening services. Tun et al., (2016) highlights that people with disabilities often need to travel with an assistant to help them maneuver around obstacles they encounter on the way. In the current study 18.3% women living with disability indicated that they needed assistance (escort) to get to the clinic. The finding

shows that some women living with physical impairment are not able to move around by themselves, they need to be assisted on the bus, during the drive or on a wheelchair.

5.2.3 Health System Related Factors Contributing to Utilization of Cervical Cancer Screening Services by Participants

Concerning staff attitude, few (6.67%) participants reported that the staff had negative attitude. The finding indicates that a significant number of nurses do not handle the patients living with physical impairments well. Several authors have reported on the negative attitude that women living with physical impairments face when they utilize cervical cancer screening services. In one study the participants cited that sterilization was forced on them when they utilized reproductive services. It is possible that with appropriate training on service delivery to women living with physical impairment, health care providers will treat that population much better. Several studies recommend that healthcare workers be trained in service delivery to people living with disability (Kellen, Nuyens, Molleman, & Hoeck, 2020).

Poor knowledge and lack of training expertise of health care staff in attending to physically impaired women was cited as a significant barrier by the VIAC nurses. Ledger (2016), reported that healthcare providers were confused about how to provide service to physically impaired women. Lack of knowledge and confidence to provide reproductive health services were correlated with the fact that healthcare providers had not been given any training or information regarding attending to physically impaired women. In that study, lack of support from the health ministry was cited as a reason for

healthcare providers having no training in providing service to women living with physical impairment (Mavuso & Maharaj, 2015).

Though there are cervical cancer screening campaigns and programmes, there are a few that address women living with physical impairments. Generally women living with physical impairment are marginalized and excluded from many activities that happen (Tun, et al., 2016). Life seems to go by as they watch from the terraces. Self-exclusion by the, women themselves is also a barrier in seeking cervical cancer screening services. There is a possibility that women living with physical impairment may think that some programmes, like cervical cancer screening services are not for them. There is need however to conduct research on this. Having campaigns and programmes for vulnerable groups including women living with physical impairment would encourage them to seek cervical cancer screening services more.

One healthcare facility, Highfields Clinic was involved in the study. From this clinic, the key informants highlighted structural (66.7%) and equipment barriers (100%). This made the clinic somewhat unfriendly to some women living with physical impairment as they used special equipment (wheelchair and others) to do day to day activities. Thirty three percent (33.0%) cited that positioning women living physical impairment on the bed was a challenge.

Ganle et al., (2016), share the same sentiments on the need of enabling infrastructure. The issue is this population group requires special equipment to be attended comfortably but the same beds that women without physical impairment use are the

ones that women with physical impairment use also at this institution. The lack of specialized equipment deters women living with physical impairment from utilizing cervical cancer screening services. Healthcare providers are also affected by this because they will not be able to provide service safely to a woman living with physical impairment. The healthcare providers need to improvise on the ground on how to provide care or worse, turn the patient away. Availability of specialized equipment motivates healthcare staff and encourages women living with physical disability to utilize healthcare services (Kellen, Nuyens, Molleman, & Hoeck, 2020).

Infrastructure that enables women living with physical impairment to move freely around the clinic encourages the utilization of cervical cancer screening services. All the 3 VIAC nurses who participated in the study reported they had to help physically impaired patients get around the clinic as there was no supporting infrastructure. The clinic had insufficient ramps and had no rails at all to support those in need of them. This was similar to the findings in a study done in Ghana (Ganle, Otupiri, Obeng, Edusie, Ankomah, & Adanu, 2016) which showed that health institution designs were unfriendly to people with special needs. Though this was not part of the questionnaires, the researcher also noted that there was no clear signage around the clinic. One has to ask for directions when going around the clinic. This makes movement between clinic departments challenging.

Communication with women living with physical impairment was cited as a barrier by one (33.3%) nurse. Attitude and level of education play a part in communication being a

barrier. Attitude is also related to the mind-set that service providers and women living with disability have towards people with disabilities and healthcare practitioners (Tun, et al., 2016). Ones attitude during communication influences the way the other person communicates back. The more educated one is the more they are bound to understand things better (Ganle, Otupiri, Obeng, Edusie, Ankomah, & Adanu, 2016).

Women with physical impairment maybe irritable and find it hard to communicate their concerns and worries. Gudlavalleti, (2018), mentions that communication can be hindered by irritabiltiy and attitude by the halthcare provider or the person livng with disability. The clinician might find it difficult to disseminate some information to the patient with disability because some of the issues may not be applicable to them. Misunderstanding on the part of both parties might occur and lead to poor service delivery. Luckily, the women living with disability who participated in this study had attained some level of education.

5.3 Study conclusions

Undertaking this study was of relevance because the majority of research studies covering cervical cancer screening services utilization in Zimbabwe and worldwide exclude physically disabled women. The most significant findings from the study were that having been pregnant before and high knowledge levels were the contributors to the utilization of cervical cancer screening services. Poor infrastructure development and equipment were a drawback. There is need for further research on women living with

physical impairment accessing cervical cancer screening services in other locations in Zimbabwe.

5.4 Implications to practice

Knowing and removing barriers of utilization of cervical cancer screening services for women living with physical impairment will enable the development of new procedures to increase their participation. Social change within the community, as the level of understanding regarding preventive healthcare needs related to cervical cancer will be enhanced. Shift from sickness and cure to wellness and prevention, the effect of research aided social change in public health cannot be underestimated. Public health officials plan and help improve awareness on the benefits of prevention, early detection, and treatment of cervical cancer.

5.5 Recommendations

1. The implementation of educational programs (in the community) to raise awareness and increase compliance to cervical screening that target women living with physical disability.
2. Awareness campaigns should be made a priority by the ministry of health in partnership with non-governmental organizations to come up with public health campaigns that can be disseminated via multiple media in all available formats so that women living with disability also understand.

3. Emphasis must be put on the role of healthcare workers in the recommendation of the Pap/VIAC test to all women visiting healthcare institutions to increase awareness.
4. Following the guidelines of Article 25 of the United Nation's Convention on the Rights of Persons with Disabilities would improve service delivery to women living with physical impairment. Adhering to the guidelines would also ensure provision of appropriate infrastructure and equipment to healthcare institutions.

5.6 Suggestions for Further Research

During data collection, the researcher observed that women living with physical impairment had more to say on the utilization of cervical cancer screening services and other health matters. Opportunity allowing, doing the same study in a qualitative manner will yield more information from the participants.

In order to get information that is representative of all women living with physical impairment, a study involving more Harare City Health Department Clinics and locations will need to be done. The study will have more key informants and participants from all around Harare.

For healthcare practitioners and the population at large to understand the needs of women living with physical impairment, it would be beneficial to do a study that looks at how these women live and do their day to day activities. Such a study would help reduce stigma and make everyone understand that everyone has the right to access health care services.

This study involved women living with physical impairment only. It would be good to include women with various types of disabilities. This would improve cervical cancer screening service provision to them also.

5.7 Dissemination of results and any key action taken in response to the findings

A report on the results of this study (soft and hard copy) will be given to the College of Health, Agricultural and Natural Sciences and the Africa University Library. Another copy of the study report will be given to the Harare City Health Directorate. Highfields Clinic staff will also be provided with a report of the study findings. Results of this study will be shared with women living with physical impairments through Disabled Women's Support Organization.

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Appendix A: Informed consent form for the participant (English)

My name is Brett Chikukwa, a final year Master's in Public Health student from Africa University. I am carrying out a study on determinants of utilization of cervical cancer screening services among women living with physical impairments in Highfields, Harare 2018 to 2019. I am kindly asking you to participate in this study by answering questions on this questionnaire.

What you should know about the study:

Purpose of the study:

The purpose of the study is to determine the factors contributing to utilization of cervical cancer screening services by women living with physical impairments in Highfields, Harare from 2018 to 2019. You were selected for the study because you are a woman living with physical impairment and lived in Highfields, Harare from 2018 to 2019. Sixty women living with physical impairment will be enrolled in the study.

Procedures and duration

If you decide to participate you will be required to provide information by answering questions. It is expected that this will take about 30 to 45 minutes.

Risks and discomforts

The nature of the research questions maybe sensitive and embarrassing to answer. This might cause you to become anxious and uncomfortable. You are free not to answer the

questions if you do not want to. The length of the interview might be too long for you, feel comfortable to say so and we may discontinue for a while.

Benefits and/or compensation

There is no remuneration for taking part in this study however the results from this research may influence policy in the provision of cervical cancer screening services especially to women living with physical impairments. Policy formulation will benefit you and other women who live with disability to fully utilize cervical cancer screening services. You will not receive any compensation for being in this research study.

Confidentiality

Confidentiality, privacy and anonymity will be maintained throughout the study. No-one will be able to link your questionnaire to you. No one will even know that you participated in the study. Only the researcher will have access to the informed consents and questionnaires which will always be stored in a locked cabinet at the researcher's home. This material will be stored for about a year and incinerated thereafter.

Voluntary participation

Taking part in this research study is voluntary. You do not have to participate in this research. If you choose to take part, you have the right to stop at any time. If you decide not to participate or if you decide to stop taking part in the research later, there will be no penalty or loss of benefits to which you are otherwise entitled.

Offer to answer questions

Before you sign this form, please ask any questions on any aspect of this study that is unclear to you. You may take as much time as necessary to think it over.

Authorization

If you have decided to participate in this study please sign this form in the space provided below as an indication that you have read and understood the information provided above and have agreed to participate.

_____ _____

Name of Research Participant (please print) Date

_____

Signature of Research Participant

If you have any questions concerning this study or consent form beyond those answered by the researcher including questions about the research, your rights as a research participant, or if you feel that you have been treated unfairly and would like to talk to someone other than the researcher, please feel free to contact the Africa University Research Ethics Committee on telephone (020) 60075 or 60026 extension 1156 email aurec@africau.edu

Name of Researcher: _____

Appendix B: Informed consent form for the participant (Shona)

Ini ndinonzi Brett Chikukwa. Ndiri mugwaro rekupedzisira muchidzidzo cheMaster's muPublic Health ndichidzidza kuAfrica University. Ndiri kuita tsvakurudzo yezvinhu zvinokonzera kushandiswa kwechirango chekuongororwa kwemuromo wechibereko nemadzimai vane kusashanda zvakanaka kwemuviri vaigara muHighfields, Harare muna 2018 kusvika 2019. Ndiri kukumbirawo kuti mupinde mutsvakurudzo iyi yamunenge muchizopindura mibvunzo.

Zvamunofanira kuziva pamusoro petsvakurudzo:

Chinangwa chetsvakurudzo

Chinangwa chetsvakurudzo iyi ndeche kutsvaga mashandisirwo echirango chekuongororwa kwemuromo wechibereko nemadzimai vane kusashanda zvakanaka kwemuviri vaigara muHighfields, Harare muna 2018 kusvika 2019. Masarudzwa kuti mupinde mutsvakurudzo nekuti muri mudzimai ane kusashanda zvakanaka kwemuviri. Madzimai vane kusashanda zvakanaka kwemuviri vanogara muHighfields, Harare vanokwana iwo kuita makumi matanhatu vachapinda mutsvakurudzo.

Zvinoitwa mutsvakurudzo

Mukasarudza kupinda mutsvakurudzo, muchatarisirwa kupa ruzivo rwenyu nekupindura mibvunzo. Mibvunzo iyi inotora maminitsi makumi matatu kusvika makumi mana neshanu.

Zvirwadzo nenjodzi dzingave mutsvakurudzo

Mamiriro emibvunzo yetsvakurudzo anogona kuve anogumburisa kana kunyadzisira. Mibvunzo iyi inogona kuita kuti munzwe kushikana kana kunyara kupindura. Nhaurirano inogona kutora chinguvana zvekuti munogona kutsvotekana. Sunungukai kutaura kana musisade kupindura mibvunzo.

Zvinowanikwa pakuva mutsvakurudzo

Hapana mari inowanikwa pakupinda mutsvakurudzo. Zvichabuda kubva mutsvakurudzo zvinogona kuvandudza mirairo yekuwanikwa kwechirango chekuongororwa kwemuromo wegomarara rechibereko kune madzimai vane kusashanda zvakanaka kwemuviri. Mirairo iyi ichabatsira kuwanikwa kwechirango chekuongororwa muromo wechibereko nemadzimai anekusashanda zvakanaka kwemuviri.

Chirevo chekuvanzika

Kuvanzika nekusazivikanwa kuti mapinda mutsvakurudzo kuchange kurimo mutsvakurudzo iyi. Hapana achazogona kuona kuti makapinda mutsvakurudzo kana kuona zvamakapindura kumibvunzo yetsvakurudzo. Mukuru wetsvakurudzo ndiye ega anenge aine mvumo yekuona gwaro rino uye nemhinduro yemibvunzo yamunenge mapa. Ruzivo urwu ruchange ruchichengeterwa kumba kumukuru wetsvakurudzo mukabhineti inokiwa. Ruzivo urwu ruchachengetwa kwenguva inokwana iyo kuita gore robva razopiswa.

Kuzvipira kupinda mutsvakurudzo

Kupinda mutsvakurudzo isarudzo yenyu. Hamumanikidzwe kupinda mutsvakurudzo. Kana masarudza kupinda mutsvakurudzo, mune mvumo yekubuda chero nguva yamunenge mafunga kuti hamuchada. Kana mukasarudza kusapinda kana mukazofunga kubuda mutsvakurudzo tatifambei, hapana chipomerwa chamunopiwa kana kurasikirwa nemubairo kwamunoita.

Mibvunzo

Musati masaina, sunungukai kubvunzwa mibvunzo pamusoro petsvakurudzo. Sunungukai kutora nguva yekufunga pamusoro petsvakurudzo.

Mvumo

Kana mabvuma kupinda mutsvakurudzo, sainai gwaro rino padzasi apo. Kusaina kunoratidza kuti maverenga uye manzwisisa gwaro rino.

_____ _____

Zita kana chemudzimai ari kupinda mutsvakurudzo Zuva

_____

Sainecha kana chigunwe chemudzimai ari kupinda mutsvakurudzo

Kana mune mibvunzo, kunyunyuta kana kushushikana pamusoro petsvakurudzo kana gwaro rino, sunungai kubata Africa University Research Ethics Committee on telephone (020) 60075 or 60026 extension 1156 email aurec@africau.edu.

Zita remukuru wetsvakurudzo:_____

Appendix C: Informed consent form for the Key informants

My name is Brett Chikukwa, a final year Master's in Public Health student from Africa University. I am carrying out a study on determinants of utilization of cervical cancer screening services among women living with physical impairments in Highfields, Harare 2018 to 2019. I am kindly asking you to participate in this study by answering questions on this questionnaire.

What you should know about the study:

Purpose of the study:

The purpose of the study is to determine the factors contributing to utilization of cervical cancer screening services by women living with physical impairments in Highfields, Harare from 2018 to 2019. You were selected for the study because you are a healthcare service provider who was involved in cervical cancer screening at Highfields Polyclinic from 2018 to 2019.

Procedures and duration

If you decide to participate you will be required to provide information by answering questions. It is expected that this will take about 25 to 30 minutes.

Risks and discomforts

The nature of the research questions may be sensitive to answer. This might cause you to become anxious and uncomfortable. You are free not to answer the questions if you do not want to.

Benefits and/or compensation

There is no remuneration in taking part in this study however the results from this research may influence policy in the provision of cervical cancer screening services especially to women living with physical impairments. Policy formulation will benefit women living with disability to fully utilize cervical cancer screening services. You will not receive any compensation for being in this research study.

Confidentiality

Confidentiality, privacy and anonymity will be maintained throughout the study. No-one will be able to link your questionnaire to you. No one will even know that you participated in the study. Only the researcher will have access to the informed consents and questionnaires which will always be stored in a locked cabinet at the researcher's home. This material will be stored for about a year and incinerated thereafter.

Voluntary participation

Taking part in this research study is voluntary. You do not have to participate in this research. If you choose to take part, you have the right to stop at any time. If you decide not to participate or if you decide to stop taking part in the research later, there will be no penalty or loss of benefits to which you are otherwise entitled.

Questions

Before you sign this form, please ask any questions on any aspect of this study that is unclear to you. You may take as much time as necessary to think it over.

Authorization

If you have decided to participate in this study please sign this form in the space provided below as an indication that you have read and understood the information provided above and have agreed to participate.

_____ _____

Name of Healthcare worker (please print) Date

_____

Signature of Healthcare worker

If you have any questions concerning this study or consent form beyond those answered by the researcher including questions about the research, your rights as a research participant, or if you feel that you have been treated unfairly and would like to talk to someone other than the researcher, please feel free to contact the Africa University Research Ethics Committee on telephone (020) 60075 or 60026 extension 1156 email aurec@africau.edu

Name of Researcher:_____

Appendix D: Questionnaire for the participant (English)

Study Title: Determinants of utilization of cervical cancer screening services by women living with physical impairments in Highfields, Harare.

Please answer all questions by placing an "X" on the response of your choice.

Section 1: Sociodemographic factors

This section will identify the socio demographic factors contributing to cervical cancer screening

1. What is your age? ☐

2. What is your marital status?
   a. Single ☐
   b. Married ☐
   c. Separated ☐
   d. Divorced ☐
   e. Widowed ☐
   f. Other (please specify:

   _____

3. Who do you live with?

   a. Mother ☐
   b. Father ☐
   c. Husband ☐
   d. Boyfriend ☐
   e. Uncle ☐
   f. Aunt ☐
   g. Child/children ☐
   h. Alone ☐
   i. Other (please specify:

   _____

4. What is the highest level of school you have completed?

   a. None ☐
   b. Primary school ☐
   c. Secondary education ☐
   d. Tertiary ☐

   _____

5. What is your current employment status?

   a. Unemployed ☐

   b. Employed ☐

   c. Retired ☐

   d. Self employed ☐

   e. other (please specify:

   _____).

6. What is your current monthly income per month? ☐

7. H0ave you ever been pregnant?

   a. Yes ☐

   b. No ☐

8. How many children do you have? ☐

9. Do you have a medical aid (health insurance)?

   a. Yes ☐

   b. No ☐

Section 2: Knowledge Information.

		Yes	**No**	**I do not know**
1	Have you ever heard of cervical cancer?			
2	Have you ever heard about a Pap smear / VIAC?			
3	Have you ever had a Pap smear / VIAC done?			
4	Cervical cancer can cause death?			

The following sentences are related to the need that you must take the Pap smear, and the risk of having cervical cancer. Please indicate the degree to which you agree or disagree with each statement by placing an **X** under your choice. Remember, there are no good or bad answers in this questionnaire; therefore, if you are unsure or do not know an answer, feel free to answer what you believe.

		Strongly Agree	**Agree**	**Disagree**	**Strongly Disagree**
5	If I do not have symptoms of cervical cancer, I do not need a Pap smear / VIAC.				
6	If I have not had children, I do not need a Pap smear / VIAC.				
7	If I do not have intercourse, I do not need a Pap smear / VIAC.				
8	I am at risk for developing cervical cancer.				
9	Cervical cancer can be treated if detected early.				
10	Cervical cancer is one of the most common cancers among women.				

11. When was your last Pap smear / VIAC done?

    a. Less than a year ☐

    b. 1 year ago ☐

    c. 2 years ago ☐

    d. 3 years ago ☐

    e. Over 4 years ☐

    f. Never ☐

12. If you answered never, what is the reason?

a. I do not know about Pap smear / VIAC ☐

b. I do not know where to get the Pap smear / VIAC done ☐

c. I am afraid to get the procedure done ☐

d. I do not have the time ☐

e. I am embarrassed to get a genital exam ☐

f. others specify

_____

13.	For those who have had a Pap smear / VIAC done, what was the reason?	**Strongly Agree**	**Agree**	**Disagree**	**Strongly Disagree**
a.	To take care of my health				
b.	Because a nurse or midwife told me				
	Because a doctor told me				
c.	Because my mother spoke to me about it				
d.	Because a friend or neighbor spoke to me about it				
e.	Because members of my family told me to get it				
f.	Because I listened to or read something in the newspaper or in a television or radio program or heard from church or school				

Section 3: Health System Related Factors

14. How do you get to (travel) to Highfields Clinic?

    a. I walk. ☐

    b. I take the bus/ car/ bike. ☐

    c. I don't know where Highfields Clinic is. ☐

    d. other (specify)

    _____

15. Experience of the last time you went for Pap smear / VIAC:

		Yes	No
a	Did you face any challenges going around the health facility? Explain below.		
b	Did you trust the staff at the health facility?		
c	Was the staff accommodating?		
d	Was information availed to you in a format you understood?		

Appendix E: Questionnaire for the participant (Shona)

Zita retsvakurudzo: Zvinhu zvinokonzera kushandiswa kwechirango chekuongororwa kwemuromo wechibereko nemadzimai makuru vane kusashanda zvakanaka kwemuviri vaigara muHighfields, Harare muna 2018 -2019.

Isai "X" pane mhinduro yenyu kumibvunzo.

Chikamu 1: Zvemagariro

Chikamu ichi chicharatidza zvemagariro enyu.

1. Mune makore mangani? ☐
2. Chinzvimbo chenyu chemuchato ndechipi?
    a. Mumwechete ☐
    b. Ndakaroorwa ☐
    c. Takaparadzana ☐
    d. Takarambana ☐
    e. Shirikadzi ☐
    f. Zvimwewo (please specify:

    _____

3. Munogara nani?

   a. Amai ☐
   b. Baba ☐
   c. Murume ☐
   d. Shamwari yechirume ☐
   e. Hama yechirume ☐
   f. Hama yechikadzi ☐
   g. Mwana/ vana ☐
   h. Ndega ☐
   i. Mumwewo Munhu (tsanangurai: _____

2. Chikoro chikuru chamunacho ndechipi?

   a. Handina ☐
   b. Dzidzo yekuPrimary ☐
   c. Dzidzo yekuSecondary ☐
   d. Dzidzo yekuTertiary ☐

   _____

3. Munoitei paupenyu kuti muwane mari? ☐

a. Handishande

b. Ndinoenda kubasa

c. Penjeni

d. Ndinozvishandira

e. Zvimwewo (tsanangurai

_____).

4. Pamwedzi munowana marii?

5. Makamboita pamuviri here?

   a. Hongu

   b. Kwete

6. Mune vana vangani?

7. Mune medical aid (health insurance) here?

   a. Hongu

   b. Kwete

Chikamu 2: Ruzivo rwenyu pamusoro pegomarara remuromo wechibereko.

		Hongu	**Kwete**	**Handizive**
1	Makambonzwa nezve gomarara rechibereko here?			
2	Makambonzwa nezvePap smear / VIAC here?			
3	Makamboitwa Pap smear / VIAC here?			
4	Gomarara rechibereko rinouraya here?			

Iyi mitsara inotevera ine chekuita nekudiwa kwekutora bvunzo dzePap smear / VIAC, uye njodzi yekuva negomarara remuchibereko. Ndokumbira mutaridze mwero wamunobvumirana kana kupokana nechirevo chimwe nechimwe nekuisa **X** pasi

pesarudzo yenyu. Rangarirai, hapana mhinduro dzakanaka kana dzakaipa nokudaro, kana musina chokwadi kana musingazive mhinduro, inzwa kusununguka kupindura zvamunotenda.

		Ndinobvumira zvakanyanya	Ndinobvumira	Ndinopokana	Ndinopokana zvakanyanya
5	Kana ndisina zviratidzo zvegomarara remuchibereko, ini handidi kuongororwa kwePap smear/ VIAC/				
6	Kana ndisina kuve nevana, ini handidi kuongororwa kwePap smear / VIAC.				
7	Kana ndisina kuita bonde, ini handidi kuongororwa kwePap smear / VIAC.				
8	Ndiri panjodzi yekuita gomarara remuromo wechibereko.				
9	Gomarara remuromo wechibereko rinorapika kana rikakurumidza kuonekwa.				
10	Gomarara remuromo wechibereko nderimwe gomarara				

	rinonyanya kuwanikwa pamadzimai				

11. Makapedzisira kuitwa Pap smear rini?

a. Gore harisati rapfuura ndaitwa Pap smear / VIAC ☐

b. Gore rapfuura ndaitwa Pap smear / VIAC ☐

c. Makore maviri apfuura ndaitwa Pap smear / VIAC ☐

d. Makore matatu apfuura ndaitwa Pap smear / VIAC ☐

e. Makore mana apfuura ndaitwa Pap smear / VIAC ☐

f. Handisati ndamboitwa Pap smear / VIAC ☐

12. Kana mapindura kuti hamusati mamboitwa Pap smear / VIAC, chii chiri chikonzero?

a. Handizive nezvePap smear / VIAC ☐

b. Handizive kunoitwa Pap smear / VIAC ☐

c. Ndinotya kuitwa Pap smear / VIAC ☐

d. Handina nguva yekunoitwa Pap smear /VIAC ☐

e. Ndinonyara kuongororwa nhengo yechidzimai ☐

f. Zvimwewo (tsanangurai)

_____

13.	Kune avo vakamboitwa	Ndinobvumira	Ndinobvumira	Ndinopokana	Ndinopokana zvakanyanya

	Pap smear / VIAC, chii chikonzero?	zvakanyanya			
a.	Kuchengeta hutano hwangu				
b.	Nekuti mukoti kana nyamukuta vakandiudza				
c.	Nekuti chiremba vakandiudza				
d.	Nekuti amai vangu vakataura neni nezvazvo				
e.	Nekuti shamwari kana muvakidzani akataura neni nezvazvo				
f.	Nekuti nhengo dzemhuri yangu dzakandiudza kuti nezvazvo				
g.	Nekuti ndakateerera kana kuverenga nezvazvo mupepanhau kana muTV kana kunzwa paredhiyo, kuchechi kana kuchikoro				

Chikamu 3: Zvinhu zvine chekuita nesisitimu yeutano

14. Munoenda sei kuti musvike kuHighfields Clinic?

a. Ndinofamba ☐

b. Ndinokwira michovha ☐

c. Handizive kuneHighfields Clinic ☐

d. Zvimwewo

---

15. Chiitiko chenguva yekupedzisira yamakaenda kuPap smear/ VIAC:

		Hongu	Kwete
a	Pane matambudziko amakasangana nawo kunzvimbo yeutano pamakaenda kunoitwa Pap smear/ VIAC? Tsanangurai pazasi apa.		
b	Wakavimba nevashandi vakange variko kunzvimbo yeutano here?		
c	Makatambirwa kana kubatsirwa zvakanaka here nevashandi vekunzvimbo yeutano?		
d	Ruzivo rwakapihwa kwamuri rwaive munzira yamakanzwisisa here?		

Appendix F: Questionnaire for key informant (Health care provider)

Determinants of utilization of cervical cancer screening services by women living with physical impairments in Highfields, Harare.

1. **Profession:**_____

2. **Duration working at the institution:**_____

This part of the survey will assess your knowledge about cervical cancer screening. Please answer all questions by placing an "X" on the response of your choice.

		Yes	**No**	**I don't know**
3	Do you think women living with physical impairments are at risk of developing cervical cancer?			
4	Do you think women living with physical impairments have sex?			
5	Does the organization have outreach services that target women living with physical impairments?			
6	Do you think you have enough training in cervical cancer screening to deal with women living with physical impairments?			
7	Is equipment available to aid or encourage safe moving around in the institution i.e. rails, wheelchairs, clear signage?			
8	Is there a procedure followed if women with special needs like with physical impairments want to get screened for cervical cancer?			
9	Have you ever had to provide cervical cancer screening services to a woman with physical impairments?			

10. What challenges do you face when women living with physical impairments come for cervical cancer screening?

_____

_____

_____

11. What can be done to better provide cervical cancer screening services to women living with physical impairments?

_____

_____

_____

Thank you for participating in this study

Appendix G: Approval to conduct the study from Harare City Health Department

Appendix H: Approval to conduct the study from Disabled Women's Support Organisation

23 Clayton Road
Milton Park
Harare
ZIMBABWE
Tel: +263[illegible]
Mobile: +263[illegible]
Email : [illegible]

Disabled Women Support Organisation

03 November 2020

Ms. Brett D. Chikukwa
Number 6 – 40th Avenue
Haig Park
Mabelreign
HARARE

Dear Ms. Chikukwa
REF: PERMISSION TO CONDUCT A RESEARCH WITH WOMEN WITH PHYSICAL, AUDITORY AND VISUAL IMPAIRMENTS.

I acknowledge receipt of your letter in connection with above.
Permission has been granted for you to conduct a study titled: DETERMINANTS OF UTILIZATION OF CERVICAL CANCER SCREENING SERVICES AMONG ADULT WOMEN LIVING WITH PHYSICAL, AUDITORY AND VISUAL IMPAIRMENTS IN HIGHFIELDS, HARARE 2018-2019.

Kindly note that you are required to share your findings with the Disabled Women Support Organization (DWSO) through the senator's office at 23 Clayton Road Milton Park Harare. For further assistance, kindly contact DWSO staff.

Yours faithfully

Senator Rejoice Timire
Exc Director

DWSO
03 NOV 2020

Appendix I: Approval to conduct the study from Africa University Research Ethics

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) 60775/60026/61611 Fax (+263 20) 61785 website: www.africau.edu

Ref: AU1914/21 23 February, 2021

BRETT D CHIKUKWA
C/O CHANS
Africa University
Box 1320
Mutare

RE: **DETERMINANTS OF UTILIZATION OFCERVICAL CANCER SCREENINGSERVICES AMONG ADULT WOMEN LIVING WITHPHYSICAL IMPAIRMENTS IN HIGHFIELDS, HARARE 2018-2019**

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) Data collection instruments
c) Informed consent guide

- **APPROVAL NUMBER** AU1914/21
  This number should be used on all correspondences, consent forms, and appropriate documents.
- **AUREC MEETING DATE** NA
- **APPROVAL DATE** February 23, 2021
- **EXPIRATION DATE** February 23, 2022
- **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.

AFRICA UNIVERSITY RESEARCH ETHICS COMMITTEE (IN PART)
APPROVED
P.O. BOX 1320, MUTARE, ZIMBABWE

Yours Faithfully

MARY CHINZOU – A/AUREC ADMINISTRATORFOR CHAIRPERSON, AFRICA UNIVERSITY RESEARCH ETHICS COMMITTEE