
Intervention Strategy to Promote Utilization of Cervical Cancer Screening Services at Vhembe District, South Africa

by

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DECLARATION

I, **Elisa Naledzani Vhuromu**, declare that the theses “**Intervention Strategy to Promote Utilization of Cervical Cancer Screening Services at Vhembe District in Limpopo Province,**” submitted for the Doctor of Philosophy degree at the University of Venda is my own work and that all sources that I have used or quoted have been indicated and acknowledged by means of complete references. This research project has never been submitted previously for another degree at this or any other university.

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DEDICATION

This research is dedicated to:

- ∞ My husband, Elias Raudzingana Vhuromu.

- ∞ My girls, Mpandeleni, Nkhanedzeni and Mpfumiseni.

- ∞ My grandsons, Oneaho and Uhone Vhuromu, Mthokozisi and Siphemandla Gubeni, and Akonaho Matshavhange.

- ∞ My granddaughters, Mukoni, Ndivho and Adivhaho Matshavhange, and Buhle Gubeni.

- ∞ My nephew, Azwindini Kwindi.

- ∞ My niece, the late Ndivhudzannyi Elizabeth Kwindi

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ABSTRACT

Background

Cervical cancer may be preventable when screening services which detect cancerous cells at an early stage are utilized. Utilization of cervical cancer screening services, taking of Pap smear in particular, is effective if done systematically, that is, yearly or every ten years depending on whether the individual is at risk or not. Failure to utilize cervical cancer screening services predisposes women to cervical cancer because if one is affected, the disease will progress without one being aware. Studies have been carried out in this area, but not much has been done on strategies to promote the utilization of cervical cancer screening services.

Purpose

The purpose of this study was to develop an intervention strategy to promote utilization of cervical cancer screening services in Vhembe District, Limpopo Province, South Africa.

Objective

The specific objectives were to explore and describe the provision of cervical cancer screening services by Primary Health Care Nurses (PHCNs); assess the awareness of women on the utilization of cervical cancer screening services; develop an intervention strategy to promote utilization of cervical cancer screening services and to validate an intervention strategy to promote utilization of cervical cancer screening services at Vhembe District in Limpopo Province, South Africa.

Methodology

The research was conducted in three phases. In Phase I, qualitative and quantitative approaches were used. The qualitative approach was used to explore experiences of nurses concerning the provision of cervical cancer screening services and the quantitative approach applied for assessment of the awareness of women on the utilization of cervical screening services. The population in the qualitative approach were PHCNs providing cervical cancer services and, in the quantitative approach, were women aged 20-59. Non-probability purposive sampling was used to sample 15 PHCNs and 500 women. Ethical considerations, that is, the rights of all the stakeholders were honoured. Data was collected from PHCNs through semi-structured interviews using an interview guide and from women through questionnaires. Reliability and validity of the research was ensured. Qualitative data was analyzed through open-coding and quantitative data through descriptive statistics (frequencies and percentages).

Results

In Phase II, an intervention strategy to promote utilization of cervical cancer screening services in Vhembe District, Limpopo Province, South Africa was developed. The Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis was used to analyze the validity. Political, economic, socio-cultural, technological, environmental factors and laws within the opportunities and threats landscape of cervical cancer screening services in Vhembe District were analyzed. The Build, Overcome, Explore and Minimize (BOEM) paradigm was used to develop the intervention strategy. In Phase III, the qualitative and quantitative approach was used to validate the developed intervention strategies. A purposive sampling was used to sample fifteen PHCNs and 4 four managers.

Conclusions

Intervention strategies with action plans were developed.

Recommendations

Recommendations related to implementation of strategies to promote utilization of cervical cancer screening services were compiled.

Keywords: intervention strategies, promote, utilization, cervical cancer screening services

LIST OF ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
ABET	Adult Basic Education and Training
BOEM	Build, Overcome, Explore and Minimize
CANSA	Cancer Association of South Africa
CCMDD	Central Chronic Medicine Distribution and Dispensing
CDC	Centres for Disease Control and Prevention
CHW(s)	Community Health Worker(s)
DNA	Deoxyribonucleic Acid
DoH	Department of Health
HBM	Health Belief Model
HHS	U.S. Department of Health and Human Services
HIV	Human Immunodeficiency Virus
HPV	Human Papilloma Virus
HPCSA	Health Professions Council of South Africa
HRSA	Health Resources and Services Administration
IARC	International Agency for Research on Cancer
IBM	International Bio-Medicine
MDG(s)	Millennium Development Goal(s)
NGO(s)	Non Governmental Organization(s)
NHC	Natonal Health Care
NHLS	National Health Laboratory Service
NHR	National Health Research
NHS	National Health Strategy
NHSP	National Health Strategic Plan
NPO	Non-Profit Organization
Pap Smear	Papanicolaou Smear
PESTLE	A mnemonic which in its expanded form denotes P for Political, E for Economic, S for

Social, T for Technological, L for Legal and E for Environmental Factors that give a bird's eye view of the whole environment from many different angles that one wants to check and keep a track of while contemplating on a certain idea/plan. (<http://pestleanalysis.com/what-is-pestle-analysis/>)

PHC	Primary Health Care
PHCN(s)	Primary Health Care Nurse(s) or Primary Health Care Nursing
SA	South Africa
SALC	South African Litigation Centre
SANC	South African Nursing Council
SDG(s)	Sustainable Development Goal(s)
SoPH	School of Public Health
SPSS	Statistical Package for Social Sciences
STI(s)	Sexually-Transmitted Infection(s)
SWOT	Strengths, Weaknesses, Opportunities and Threats
TB	Tuberculosis
UNAIDS	The Joint United Nations Programme on HIV and AIDS
UNICEF	United Nations Children's Fund
UK	United Kingdom
UNFPA	United Nations Population Fund
USA	United States of America
WHO	World Health Organization

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CHAPTER 1

OVERVIEW OF THE STUDY

1.1 Introduction

Globally, cervical cancer is the second most common cancer amongst women, with 500,000 new cases reported yearly (WHO, 2012(a):2). It is estimated that between 20,000 to 30,000 of women, mostly in poor countries are dying yearly of cervical cancer (WHO, 2012(a):3). Cervical cancer is an important public health problem worldwide and accounts for approximately 12% of all women cancers, with an estimated incidence rate of 30-40 per 100,000 women (Lyimo & Beran, 2012:10; Balogun, Odukoya, Oyediran & Ujomu, 2012(a):76). Throughout the world, prevention, control and treatment of cervical cancer have been a public health priority (WHO, 2012(b):3). There is clearly an urgent need to develop innovative or strengthen existing cervical cancer screening and prevention services worldwide. A projected 70% coverage of cervical cancer by 2010 was targeted, but to date only 13.6% coverage has been reached (WHO, 2012(b):3).

Mexican women also have lowest cervical cancer screening rates: 73.3% of Mexican women report having had a recent Pap smear in comparison to 77.7% among their Puerto-Rican counterparts (ACS, 2009). Thus, cervical cancer-related mortality remains high because cervical cancer screening services are not fully utilized for taking Pap smears (WHO, 2012(b):3). Cervical cancer is a killer disease and is incurable, especially when discovered at an advanced stage, but if identified early, it can be cured (Lewis, Heitkemper, Dirksen, O'Brien & Butcher, 2007:1403; Magawa 2012:1). Globally, cervical cancer still claims the lives of almost half a million women each year (WHO, 2012(a):3). It is worsened by the fact that the early stages of cervical cancer are asymptomatic, but can be detected by a cytology test carried out during cervical cancer screening (Lewis et al., 2007:1403). Cervical cancer develops slowly over time from a precursor lesion known as cervical dysplasia, which can be diagnosed by cervical cytology.

Mild dysplasia almost always regresses spontaneously, especially in younger women. While the severe dysplasia is a true precursor to cervical cancer, the progression from severe dysplasia to cervical cancer is quite slow, ranging from 10 to 20 years (Lewis et al., 2007:1400). Cervical cancer screening services are effective where the infrastructure for sustaining it has been successfully maintained. None of the developing countries have managed to start and successfully sustain cervical cancer screening services (Denny, 2010:11). In this context, like women in other settings, women in Vhembe District are at risk of having or developing cervical cancer and they need to utilize cervical cancer screening services for prevention and early detection, because coverage of cervical cancer screening has shown to be more important in reducing its incidence (Denny, 2010:9).

1.2 Prevalence of Cervical Cancer

Globally, scientists and public health specialists for cervical cancer indicate that there is a need to develop cervical cancer screening guidelines for resource-constrained settings (McCarey, Pirek, Boulvain, Doh & Petignat, 2011:45). Countries with effective detection programmes have shown early diagnosis of cervical cancer at the correct time and implemented curative treatment at a lower cost (McCarey et al., 2011:184). Women of low socio economic status are mostly at risk of not complying with the recommended cervical screening schedule (Chankapall, 2011:2). In the USA, 40% of women die from cervical cancer and in Africa it is 78%, which is significantly a higher incidence to mortality ratio than found in developed countries (WHO, 2011:2).

Recently, about 493,243 women are diagnosed with cervical cancer per year and 273,505 die from the disease in Africa (WHO, 2011:2). The International Agency for Research on Cancer (IARC) conducted a comprehensive analysis of data, using the largest screening programmes in the world. The results confirmed that well-organized screening programmes were very effective in reducing cervical cancer incidences and mortality (WHO, 2011:2). In the USA, cervical cancer deaths have fallen steadily over the past 40 years due to better and early diagnosis with widespread use of cervical cancer screening services, with the reduction by 70% (WHO, 2011:2). An estimated

12,170 new cases of invasive cervical cancer in the USA have been reported (Scarinci, Garcia, Kobetz, Partridge, Brandt, Bell, Dignam, Ma, Ma & Castle, 2010:253; WHO, 2013(b):5) In the United Kingdom (UK), there was a 42% reduction in cervical cancer after the National Health System implemented cervical cancer programmes successfully (WHO, 2012(a):4). In India, for example, cervical cancer accounts for one-fifth of the world burden of the disease because there are no cervical cancer screening programmes (Lyimo & Beran, 2012:10). In Australia, the number of women diagnosed with cervical cancer has dropped on average by 4.5% each year, which is attributed to a comprehensive cervical cancer programme whose impact dropped cervical cancer as the 18th most common cause of cancer death in women. Those that are most commonly affected are women less than 35 years (WHO, 2012(b):4).

These estimates confirm that cervical cancer is a health problem that needs strategy that will encourage women to utilize the available cervical cancer screening services, for prevention and early detection of the disease in order to provide curative treatment of the disease at its early stages. In sub-Saharan Africa, cervical cancer comprises 20-25% of all cancers among women. The estimate doubles that of women worldwide. Its incidence ranges from 30-40 per 100,000 women (Lyimo & Beran, 2012:10). Cervical cancer is the most incident cancer and the leading cause of cancer mortality in Ghana women (Abotchie & Shorkar, 2010:415). Therefore, in countries where there are no cervical cancer screening services, cervical cancer becomes a public health burden.

WHO predicts that the proportion of cervical cancer rates of women in Latin America, the Caribbean, sub-Saharan Africa and South Asia will grow to 98 percent by 2030 (Ferlay, Shinn, Bray, Foreman, Mathers & Parkin, 2010:6). The recent estimates of deaths due to cervical cancer in Limpopo Province in 2000 was 5.6% and in SA there are 274,000 women who die from cervical cancer (Botha, Coorenman & Dreyer, 2010:80). The high prevalence and mortality can be attributed to the limited availability of early screening tests, which allow for the detection and removal of precancerous lesions (Ferlay et al., 2010:6). According to the Limpopo DoH (2008:14), there are limited educational campaigns and materials to raise awareness on the need of utilizing

cervical cancer screening services in the communities. Health care services in Vhembe District are still more inclined to offer curative rather than preventive health care services. Women present when they feel lower abdominal pains or when cervical cancer has already progressed to advanced stage (Limpopo DoH, 2008:14). WHO predicts that the proportion of cervical cancer rates of women in Latin America, the Caribbean, sub-Saharan Africa and South Asia will grow to 98 percent by 2030 (Ferlay et al., 2010:6). The recent estimates of deaths due to cervical cancer in Limpopo Province in 2000 was 5.6% and in SA there are 274,000 women who die from cervical cancer (Botha et al., 2010:80).

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1.3 Cervical Cancer Screening

1.3.1 The Papanicolaou Smear

The Papanicolaou smear (Pap smear) is the main method of cervical cancer screening currently in use (Lyimo & Beran, 2012:9; Wright, Fasero, Kuyini & Fadeyile, 2011:3; Sasieni, 2009:89). It assists in detecting abnormal Pap smear results which will allow follow-up testing, examination and possible preventive treatment of cancer (Lewis et al., 2007:1400). The widespread introduction of the Pap smear for cervical cancer screening has been credited with dramatic reduction in the incidence and mortality of cervical cancer in developed countries. Cervical cancer screening every 3 to 5 years with appropriate follow-up can reduce cervical cancer by up to 80% (Lewis et al., 2007:1400). It is the right of every woman to undergo the Pap smear test at least once in her life time which, according to (Sasieni, 2009:89) women should have the first cervical cancer screening test done three years after the first sexual intercourse or at the age of 18 years, whichever comes first, and then annually for three consecutive years. If they have a normal Pap smear results, they can continue with cervical cancer screening every three years while those with abnormal smear results are to repeat the screening more frequently, annually or every six months

depending on a doctor's recommendation.

1.3.2 Accessibility of Cervical Cancer Screening Services

Cervical cancer screening was introduced in 2000 in South Africa (SA). It projected a 70% coverage target by 2010. To date, 13.6% coverage has been achieved and the cervical cancer mortality rate is still high. More recent data suggest that screening has had a minor impact, if any, amongst populations with limited access to cervical screening services (DoH, 2010:4). For the vast majority of women in SA, screening services are neither not available, nor function effectively nor accessibility to those who need them, thus affecting the utilization of cervical cancer services negatively (DoH, 2010:4).

Vhembe has the second lowest access to Health Care Service infrastructure amongst districts in the Limpopo Province. According to the Patients' Rights Charter, all citizens has the Right to access health care services, therefore, the government should ensure that cervical cancer screening services are provided (Mellish, Oosthuizen & Paton, 2010:170). The Batho Pele principles in South Africa prescribe that the public health services should be increased so that they can be accessed by all and this includes an increase of cervical cancer screening services (Mellish et al., 2010:168).

The SA government focuses more on preventive care than on cervical cancer screening services which are provided by PHCNs in the clinics (Lyimo & Beran, 2012:10). In private sectors, screening is done mostly when necessary (Lyimo & Beran, 2012:10). The DoH (2010:23) committed itself to reducing the incidence, morbidity and mortality rate of cervical cancer in SA through performing cervical cancer screening for about 15% of woman at the age of 30 years and above and reducing the cervical cancer incidence in women 30 years and older.

In SA, the following affect the smooth provision of cervical cancer services: Development of cervical cancer programme implementation guidelines DoH (2010:23), that is, inadequate

allocation of resources; limited number of service providers who are trained and providing their services in public facilities; limited capacity of national laboratories; inadequate infrastructure for transporting specimen to the laboratories; there those that improve the smooth running of the clinic: improving referral and feedback of abnormal cervical cancer results and translating information and communication material into local languages.

1.3.3 Acceptability of Cervical Cancer Screening Services

If the human papilloma virus (HPV) test equipment is not available, then cervical cancer screening should be taken every three years (Fishkin & Rosauer, 2012:17). This programme covers the medical treatment costs in case the cervical cancer screening results are positive. These efforts encourage women living in poor conditions to access all the cervical cancer screening services for screening. These measures are also being instituted to ensure that women access the cervical screening services without cost (Fishkin & Rosauer, 2012:17). The medicare guidelines allow women undertake Pap smears as referred by a doctor or for routine screening in any health institution. Irrespective of the free services for cervical cancer screening being provided in medicare, women are not utilizing the cervical cancer screening services, as women are still dying of cervical cancer (Fishkin & Rosauer, 2012:17; Albrow, Kitchener, Gupta, Desai, 2012:88). Cervical cancer incidence in Canada has declined by 70% over the past 50 years, largely due to the work of provincial screening programmes that have promoted screening widely and made cervical cancer screening services readily available. The decline is because the cervical cancer screening services are free in Canada (Black, 2010:11). Access to health services depends on the availability of money as well as social or cultural barriers that hinder the utilization of health services. That is why accessibility is measured in the sense of acceptability, accessibility, availability and affordability.

Female PHCNs should provide cervical cancer screening services in PHC settings in order to prevent embarrassment which may occur if these services are provided by male PHCNs (Pavicic, 2012:234). According to Guvenc, Akyuz & Acikel (2011:429), religious factors or gender roles

might be an important reason for Turkish women's reluctance to undergo cervical cancer screening. Guvenc et al. (2011:429) suggested that women should be given the choice of a cervical cancer screening services provider as this may decrease negative experiences associated with cervical cancer screening, and promote cervical cancer screening follow-up behaviour. Information is given about the gender of a person who is taking Pap smears at a particular cervical cancer screening provider in order not to embarrass women who are sensitive to Pap smear by a male service provider (WHO, 2012(b):3).

As in HPV infection, sometimes cultural and ethical reasons can make health professionals hesitant to give the facts. In Turkish society, sexuality is rather traditional, thus sexuality is often acceptable under marriage conditions. The fact of HPV is being sexually transmitted could not be explained to women. As a result of this traditional way of thinking, women do not consider the chance for contracting an STI (Duran, 2011:1180). Since socio-cultural characteristics and health beliefs affect the decision to have a cervical cancer screening, it is important for health professionals to be aware of this, to inform women about the topic and make the experience of a gynaecological examination a positive one through effective communication (Maree & Wright, 2011:118). Understanding how socio-cultural attitudes and health beliefs influence women's cervical cancer screening practices will help health care professionals to develop more effective cervical cancer screening programmes which are sensitive to cultural beliefs.

Factors associated with poor utilization of cervical cancer screening services are fear of embarrassment, pain or cancer (Arulogun & Maxwell, 2012:11). Studies have shown that 72% of cancer patients indicate that they were treated differently after diagnosis than they were before having cancer. Women who want to avoid the negative connotations associated with the disease and the change in social interactions that may occur when they are diagnosed may therefore avoid screening or treatment altogether (Arulogun & Maxwell, 2012:11). There is stigma and cultural factors surrounding both Pap smears and cancer of the cervix, which discourages women. Cumbersome procedures, lack of awareness of where the test is done, lack of time for the test, lack

of knowledge about the test, not being sexually active and demographics factors (Arulogun & Maxwell, 2012:11; Lyamo & Beran, 2012:10). These are factors that might also impact the utilization of cervical cancer screening services at Vhembe District

1.3.4 Availability of Cervical Cancer Screening Services

Cervical cancer services are provided as the patient consult at the clinic. According to Pavicic (2012:34), 80% of cervical cancer screening is done by general practitioners at health institutions or in their private practice areas. General practitioners utilize the opportunity to do cervical cancer screening to women who have never undergone cervical screening before, who are consulting. Western Australia, like most other countries, provide language interpreters to those who cannot speak English in order to facilitate communication during cervical cancer screening (Pavicic, 2012:34). This enhances mutual communication which will ease the woman during screening. In developed countries, though the cervical cancer screening services are available, most women are usually diagnosed at a later stage when the woman experiencing symptoms of cervical cancer (Batra, Kuhn & Denny, 2010:47).

Most women with at least one Pap smear test in their lifetime had opportunistic testing when they went for postnatal visit or family planning, or when they were sick. According Maree & Wright (2011:118), most women have taken pap smears when they had gynaecological symptoms. These results suggest that Pap smear tests are used mostly as diagnostic rather than as screening tests. So, these confirm that women of developing countries, like those of Vhembe District, need more intervention strategies that may be used to promote utilization of cervical cancer services.

1.3.5 Affordability of Cervical Cancer Screening Services

In many countries, cervical cancer screening is free in public health institutions, whether the woman has been referred by the doctor or it is for routine checkings, but irrespective of that advantage, women are still not being screened in large numbers. Cervical cancer screening is free, in the following countries, for example, UK and USA (NHC, 2014:7; Pavicic 2012:34) , South

African (Labeit, Peinemann & Kedir, 2013:8). Free cervical cancer screening services will somehow influence women to utilize cervical cancer screening services.

In many states of America women with lower income and those without medical aids are reluctant to go for cervical cancer screening. The states passed a law that cervical screening be covered in the medical aid, private insurances and public employee health plans (Albrow et al., 2012:89). This inclusion of cervical cancer screening in the medical aids was introduced on 23 September 2010 and this differs from one state to another. This helps those women who have medical aid to be undergo cervical cancer screening, even if they do not have money (Albrow et al., 2012:88). There are programmes instituted to offer cervical cancer screening services to medically underserved communities and women who are of racial or ethnic minorities and these services are rendered at a very low cost or free so that they can reach as many women as possible (Albrow et al., 2012:88). The Centers for Diseases Control and Prevention (CDC) plans to provide funds and support to each state programme (Albrow et al., 2012:90). This is one of the ways to influence women to utilize cervical cancer screening services because even the poor women will be able to reach them.

1.3.6 Strategies to Encourage Utilization of Cervical Cancer Screening Services

There has been limited documented research information on strategies used to encourage utilization of cervical cancer screening services. Sub-Saharan Africa and Latin-America have strategies that are being used to encourage the utilization of cervical cancer screening services, that is, a resource-sharing model. This model, combined Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS) services with cervical cancer screening and this increased the number of women with HIV to be screened and diagnosed earlier (Fishkin & Rosauer, 2012:2).

They use the same existing HIV/AIDS care and treatment network to refer patients for cervical cancer testing. This emanated from the finding that women with HIV/AIDS are four times more likely to develop abnormalities of the cervix which can lead to cervical cancer (Fishkin & Rosauer,

2012:1). The resource-sharing method is not a strategy specifically used to encourage utilization of cervical cancer screening services by all women, because it will only cater for women with HIV/AIDS. Other methods available to encourage the utilization of cervical cancer screening services are that patients hold their own records so that the records are shared between clinics. It makes health providers aware of their patients' cervical cancer screening status (Fishkin & Rosauer, 2012:1). This strategy will help women who are already diagnosed of cervical cancer and the information will assist in continuity of care.

The use of software at clinics to capture and analyze patient data about cervical cancer-related matters, conduct cervical cancer screening campaigns following the steps of running a project are also strategies that are utilized to encourage women in the utilization of cervical cancer screening services (Fishkin & Rosauer, 2012:1). The use of software will be done by health workers on data that have already been captured about the cervical cancer status of the patient. The cervical cancer screening campaigns strategy would depend on the people who will be reached and how they will respond to campaign.

Not all women who attend the campaign may go for a Pap smear. In Vhembe District, campaigns are used to encourage women to be aware of cervical cancer screening services available and utilize them. The Limpopo DoH (2008:66; Fontinatos, Warmington, Walker & Pilbeam, 2010:128) identified an increase in attendance of cervical cancer screening services following health education about cervical cancer and its prevention. It then means that the more women are aware about cervical cancer screening services, the more they will go for the screening.

While there is much information on causes, prevention, treatment, perception and attitude as well as utilization and effects of cervical cancer screening services, little is known concerning strategies to promote utilization of cervical cancer screening. The scanty researches on cervical cancer screening strategy, coupled with the fact that the SA National DoH encourages research on cervical cancer in SA, has necessitated the need for this current study. Therefore, the purpose of this study

is to develop a strategy that will promote women to utilize the cervical cancer screening services in Vhembe District, SA (Limpopo DoH, 2008:15).

1.4 Problem Statement

It was observed that nurses motivate women who come at the clinic for consultation to utilize cervical cancer screening services. However, most women refused to undertake a Pap smear. The coordinator of cervical cancer screening services at Vhembe District concurred that women are not presenting for screening after campaigns. Cervical cancer screening campaigns are conducted in Vhembe District and if all women were attending, the cervical screening uptake would have increase. The main strategy used for cervical cancer screening in the guideline is by conducting cervical cancer awareness campaigns, where information about cancer is given to the community and screening services are provided (DoH, 2013(a):10). Such campaigns are being done, but they fail to reach all the women. In the study conducted by Bingwaho (2013:6), the Pap smear was shown to be tolerated by women in six sub-Saharan African countries, but beside the Pap smear being a life-saving procedure, almost all the woman in the study indicated that they would suggest that a Pap smear be done for the other woman. This warrants a strategy that can be used to influence women to take a Pap smear. Since 90% of the Limpopo Province area is rural with poor roads and transport facilities, there is a low uptake of cervical cancer screening (Limpopo DoH, 2008:14). Cervical cancer services are offered in all the clinics with some limitations to provide it effectively, as confirmed in Table 1.1 (Limpopo DoH Vote 7, 2013:60).

Table 1.1: Annual performance indicators for cervical cancer screening coverage: 2013-2014

Performance Indicator Type	Targeted achievement	Actual achievement	Deviation from planned target to actual achievement for 2013/2014	Comments and reasons for deviations	Strategy to overcome areas of underperformance
Cervical cancer screening coverage	65%	55.5%	9.5%	Some women decline screening post counselling	Create awareness to communities on the importance of screening

Source: Limpopo DoH Vote 7, 2013:60

Additionally, it is observed that women in Vhembe District who do utilize the cervical cancer screening services do so because either they were referred from the family planning unit, some coming as part of postnatal care or presenting with symptoms. Women who visit the clinic for consultation may hear about cervical cancer only if the health education is given at the time when they are there. Women who do not visit the clinic or who do not attend the cervical cancer screening campaigns end up not knowing about cervical cancer screening; hence, they will not utilize cervical cancer screening services available. There is no programme that is presently used to follow women at their homes to provide cervical cancer screening services. In general, there are very few women who voluntarily present themselves for cervical screening services.

Trends of health service delivery in Vhembe District have dropped significantly though it is still above the provincial and national averages. The situation suggests that women are not yet well motivated to utilize available cervical cancer screening services. The coordinator of Vhembe District cervical cancer screening services indicated that when follow-up campaigns are organized, some women who are provided information about the cervical cancer screening services, but still do not undertake the Pap smear test. Coverage of cervical cancer screening has shown to be more important in reducing cervical cancer (Denny, 2010:9). These indicated that there is a need to study and develop an intervention strategy to promote utilization of cervical cancer screening services.

1.5 Purpose of the Study

The purpose of the present study was to develop an intervention strategy to promote utilization of cervical cancer screening services in Vhembe District, SA.

1.6 Research Question

Utilization of cervical cancer. The research question is the overall plan for collecting data and attaining answers to the research of the question (Brink, van der Walt & van Runsborg, 2012:217; Polit & Beck 2012:58). The research question guides the researcher to ask a question and why the researcher wants to conduct a specific research study. The research question indicates the

population and context for a study (Botma et al., 2010:108). The research question guides the researcher throughout the research process. The research questions that guided this study were:

- ❖ **Are cervical cancer screening services provided by Primary Health Care Services?**
- ❖ **Are women aware of the utilization of cervical cancer screening services in Vhembe district?**
- ❖ **What developmental intervention strategy feasible in promoting the utilization of cervical cancer screening services in Vhembe District?**
- ❖ **What is the possibility of validating the development interventionstrategr for cervical cancer screening services in Vhembe District ?**

1.7 Objectives of the Study

The objectives of this study were to:

1. Explore and describe the provision of cervical cancer screening services by Primary Health Care Nurses in Vhembe District, SA.
2. Assess the awareness of women on the utilization of cervical cancer screening services in Vhembe District, SA.
3. Develop intervention strategies to promote utilization of cervical cancer screening services in Vhembe District, SA.
4. Validate the intervention strategies to promote utilization of cervical cancer screening services at Vhembe District, SA.

1.8 Significance of the Study

According to Grove, Burns & Gray (2013:200), the significance of a study is associated with its importance to the body of knowledge and the value that will be added. For this study, the significance will focus on the following:

1.8.1 Community

The research results will make the community to be more knowledgeable about cervical cancer and encourage the utilization of cervical cancer screening services. Utilization of cervical cancer screening services will increase the uptake in Vhembe District and reduce maternal morbidity and mortality rates because there will be early detection, diagnosis and treatment of cervical cancer, contributing to *Millinium Development Goal (MDG) number 4: Reduce child mortality, MDG number 5: Improve maternal health, MDG number 6: combat HIV/AIDs, malaria and other diseases* (Vasutheran & Mthembu, 2013:228). The 17 Sustainable Development Goals (SDGs) were built on the successes of MDGs and were started being used in January 2016 and could transform the world by the year 2030. So, early detection, diagnosis and early treatment of cancer will support the *SDG number 3: Ensure healthy lives and promote wellbeing for all ages* (United Nations 2015:1).

1.8.2 Family

The families in Vhembe District community will live a healthier life—physically, mentally, socially and emotionally because they will live knowing their cervical cancer status.

1.8.3 Individuals

The individuals will have more knowledge about prevention and early detection of cervical cancer.

1.8.4 Policymakers

The recommendations will inform policymakers on areas that need improvement to ensure effective planning and implementation of cervical cancer screening services. The result of the

research will also help in developing guidelines for provision of cervical cancer screening.

1.8.5 Nursing Practice

The recommendation will provide information for nurse educators that may influence, especially community health nursing science curriculum review.

1.8.6 Nursing Education

Nurses in training will be taught the updates on cervical screening services so that they fit well into cervical cancer screening services after qualifying.

1.8.7 Research

The research study will add to the body of knowledge concerning the promotion of utilization of cervical cancer screening services. The research results will also further future research into the strategies that may be used to influence women to utilize cervical cancer screening services.

1.9 Paradigmatic Perspective

According to de Vos Strydom, Fouche & Delpont (2011:41), a paradigm is defined as the nature, growth and development of the sciences. The following three intergrating components of the paradigm will be discussed in this study, namely: meta-theoretical assumptions, and theoretical and methodological assumptions (Babbie & Mouton, 2009:645).

1.9.1 Meta-Theoretical Assumptions

Meta-theoretical assumptions focus on broader issues which are related to the theory of nursing. Meta-theoretical assumptions are important in research studies because they include the underlying theories, models and paradigms which add to defining people contextually and the social exchanges that determine their daily lives (Mouton, 2006:174 in de Vos Strydom, 2011:41). The meta-theoretical assumption in this study will be tested using qualitative and quantitative data collection tools. It is posited that cervical cancer screening service awareness will bring about

positive changes in many women who are supposed to utilize such services. It is assumed that success in the utilization of available cervical cancer screening services will be through exploring and describing awareness of the utilization of the screening services by women and the provision of the screening services by a PHCN. Government is taking an initiative in the prevention of cervical cancer. Since there is no documentation of strategy development theory, the use of Strength, Weakness, Opportunity and Threat (SWOT) as a tool for strategic management and decision-making was taken as a frame for this study (Houben, Lennie & Vanhoof, 1999:124). SWOT guided the researcher in this study to develop the intervention strategy for promotion of utilization of cervical cancer screening services.

1.9.2 Theoretical and Methodological Assumptions: The Health Belief Model

Nursing theory practice and research are mutually interrelated and interdependent. Theory is born in practice and refined in research; it can and must return to practice Dickioff, James & Wiedenbach, 1968:415). The root of theory is seen in our daily activities commonly carried out and well within our ordinary powers (Dickioff et al., 1968:41). According to Peggy, Chinn & Kramer (2011:51) the theory is initiative and adds the rigorous structuring of minds that project a tentative, purposive and systematic view of the phenomena. A theory gives a summary and organizes the recent understanding of a specific phenomena; and can be tested against the real world systematically by research. The theory is guided when defining terms, selecting and using the data collecting instrument interpreting the findings. Health care workers are aware that changing the patient's health behaviour, such as quitting smoking of alcohol consumption is very slow and difficult as this change of behaviour is affected by many factors such as the agent (health workers, that is PHCNs in this research study), host (patients that is, women in this research study) and the environment (study setting).

There are several theoretical models that indicate the agent and host factors that may have an influence on maintaining or changing health behaviour. The Health Belief Model (HBM) is one of them. Sharma & Romas (2012:6) define the HBM as a cognitive model which predicts that

behaviour is determined by a number of beliefs about perceived threats to an individual's health and the effectiveness and outcomes of particular actions or behaviours (Dennil, King & Swanepoel, 1999:156). The HBM explains why and under which conditions people take action to detect, prevent or comply with a treatment. The model further explains why other individuals take a particular action to prevent illness, whereas others fail to protect themselves by screening (Dennil et al., 1999:156). The HBM is further useful in arranging information about the individual's view of their state of health and what factors would influence them to change their ways of doing things (Dennil et al., 1999:156).

The HBM emphasizes that for people to get motivated to take an action to prevent the disease (which in this study is cervical cancer) is grounded on how strongly they believe that:

- ∞ They are susceptible to cervical cancer.
- ∞ Cervical cancer would have serious effects on their lives if they should suffer from it.
- ∞ Cervical cancer screening is of value.
- ∞ The effectiveness of chemotherapy, surgery and radiation therapy is worth the cost and barriers they must confront (Dennil et al., 1999:156).

The HBM (Figure 1.1) was used in this study because it is useful in looking at disease-preventing behaviour, that is, cervical cancer prevention.

The HBM has three major components:

- ∞ Individual perceptions
- ∞ Modifying factors

Variables affecting the possibility of beginning to act (Dennil et al., 1999:156; http://currentnursing.com/nursing_theory/health_belief_model.html).

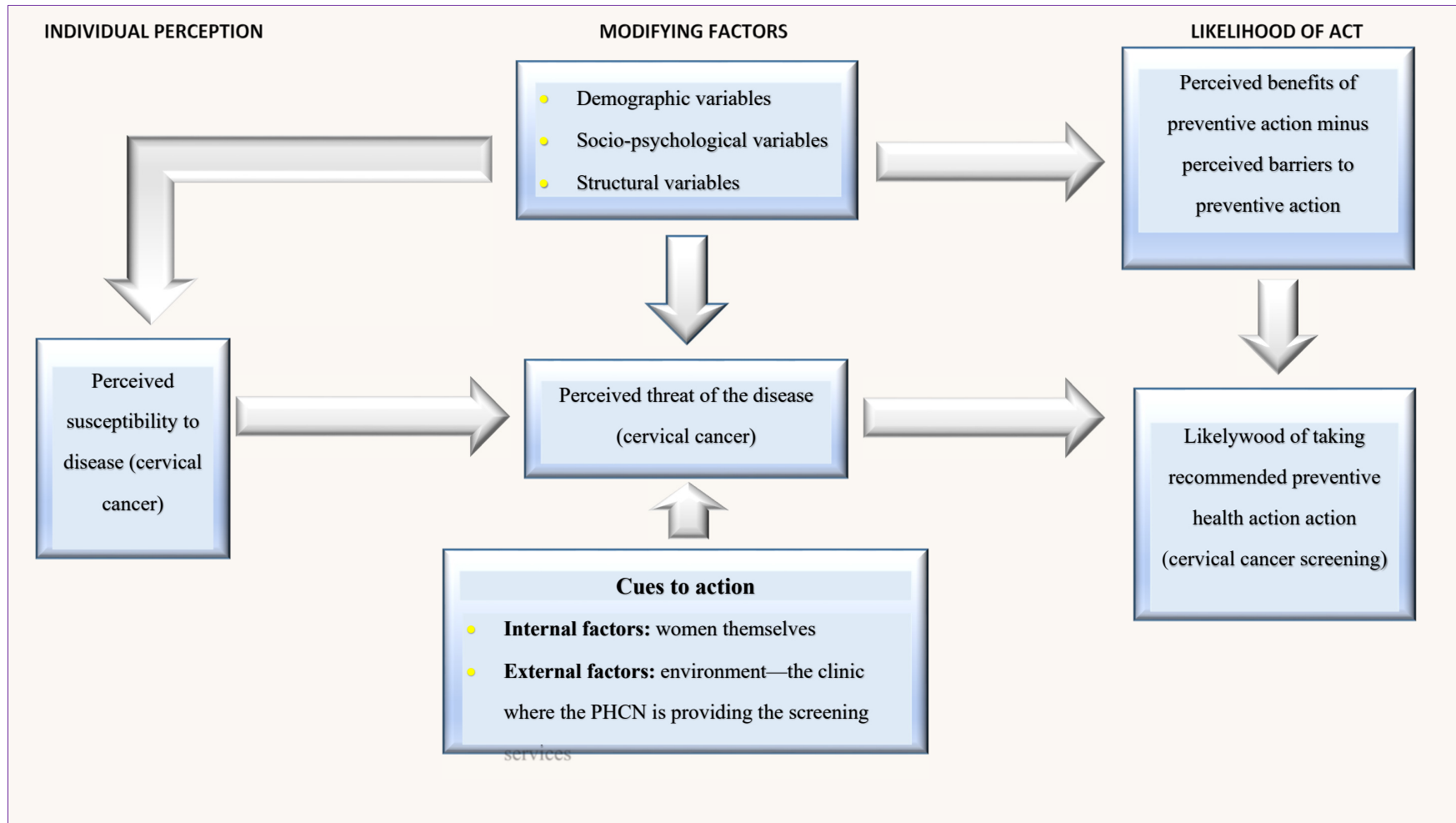


Figure 1.1: The Health Belief Model, as applied to this study

According to Morris, Marzano, Dandy & O'Brien (2012:2), the HBM explains three factors that may indicate whether or not an individual will follow a recommendation to change her behaviour, that is, the utilization of cervical cancer screening services. These factors are as follows:

- ∞ Do you feel ready to take action of utilizing cervical cancer screening services in order to be done—Pap smear? This is determined by how they perceive themselves as people who are susceptible to the disease in question, which is cervical cancer (Morris et al., 2012:2).
- ∞ How plausible is the recommended action? First, **efficacy**: will the intervention, that is, Pap smear, really prevent or reduce the severity of the disease? Second, **practicality**: are the psychological, financial or other costs, e.g., traveling fees, and barriers such as the distance to the clinic, period stayed waiting for Pap smear to be done, etc, included in the developed intervention?
- ∞ There must be some **cue to action** that prompts a change in health behavior. This can be **internal**, that comes from the woman herself or **external**, that comes from the **environment** where cervical cancer screening services are rendered or from the atmosphere created by PHCNs who provide cervical cancer screening services, that is, appearance of symptoms or a friend get sick respectfully (Morris et al., 2012:2).

In this study, the HBM (Figure 1.1) was used to determine the women's perception of the risks of being screened, their knowledge of cervical cancer screening and their views of what might be the advantages and disadvantages of cervical cancer screening (Dennil et al., 1999:157).

1.10 Definitions of Terms

Definition of concepts was based on the theoretical framework.

1.10.1 Cervical Cancer

Cervical cancer is a disease caused by an uncontrolled growth of abnormal cells in the neck-like passage (cervix) between the lower end of the womb and the vagina (Anderson, Anderson & Glanze, 1994:345; Wehmeier, McIntosh & Turnbull, 2010:140). In this study, cervical cancer is defined as a malignant, virulent abnormal growth on the mouth of the womb. According to the HBM, cervical cancer is the disease in question of which all women are susceptible to and women judge cervical cancer as a serious disease (Morris et al., 2012:2).

1.10.2 Cervical Cancer Screening Services

Cervical cancer screening services are provided to test for the presence or absence of uncontrolled growth of plastic cells in a part of the uterus that protrude into the cavity of the vagina, that has a tendency of invading surrounding tissue and metastasize to other tissues of the body, that is cancer (Anderson et al., 1994:302). In this study, cervical cancer screening services refer to the examination of a healthy woman for the presence or absence of dead cells of the mouth of the womb (uterus) due to cancer, through the Pap smear procedure. It is done for the women to know if cervical cancer is developing because if cervical cancer is discovered early it can be treated, but if discovered late it is incurable and can cause death. According to the HBM, utilization of cervical cancer screening services, that is, doing a Pap smear is a recommended action to be taken (Morris et al., 2012:2).

1.10.3 Strategies

These are plans made to reach a long-term aim (Wehmeier et al., 2010:825). In the HBM, these intervention strategies are cues to action (Morris et al., 2012:2). In this study, strategies shall refer to intervention strategies that will be used to promote utilization of cervical cancer screening services.

1.10.4 Pap Smear

It is a smear method of examining stained exfoliated cells in a specimen to detect cancer of the cervix (Anderson et al., 1994:1153). In this study, it is a simple smear collected from the cervix to identify cancer of the cervix from women in Vhembe District. It is necessary for a woman to know her cervical cancer status so that precautionary measures can be taken (George, 2011:251). According to Morris et al. (2012:2), in the HBM, the Pap smear is a behaviour or an action to be taken.

1.10.5 Primary Health Care Nurses

A Primary Health Care Nurse (PHCN) is a registered nurse who have done a one-year course in Primary Health Care Nursing (PHCN) and registered with the SA Nursing Council (SANC) as such (SANC R48 as ammended). In this study, PHCNs were the registered nurses who have undergone training in PHCN and have attended a one-week course of doing a Pap smear procedure, who are rendering cervical cancer screening services at the clinics.

1.11 Research Setting

The study was conducted in Vhembe District of Limpopo Province in SA (Local Government in SA, 2009:948). Vhembe District is divided into four municipalities (DoH, 2011:8). Most people in Vhembe District are black Africans and Vhavenda. Many people in Limpopo Province are uneducated and cannot read health services advertisements (DoH, 2009:948). The gender group population shows that 1293,783 women constitute 55.25% and 537,041 males 44,76% of the population suggesting a need for more female-related health services, including cervical cancer screening. (DoH, 2009-2011:5). The age group between 20-50 years is large and is the target group for cervical cancer (DoH, 2009:5). The social determinants indicate that Vhembe District is predominantly rural. There are poor roads which affect transport in general and most people are unemployed (DoH, 2009:948). The research setting will be discussed in detail in Chapter 3.

1.12 Research Design

A research design is a blueprint for conducting a research study that maximizes control over factors that could interfere with the validity of findings (Grove et al., 2013:209). Mixed-method is a research design that is advantageous in health research, as health behaviours are complex phenomena and their examination requires multiple data perspectives. The mixed-method approach allows the researcher to better understand, interpret, and contextualize the experiences of participants.

In this study, a combination of qualitative and quantitative approaches was used to allow for a rich understanding of the different factors that influence women behaviours in utilizing cervical cancer screening services. Given the complementary nature of a mixed-method design, the qualitative research approach was used to explore and describe the provision of cervical cancer screening services by PHCNs and the quantitative research approach was used to assess the awareness of women on the utilization of such services at Vhembe District in Limpopo Province.

1.12.1 Research Phases

This research was conducted in three phases, according to the objective, namely, empirical phase, intervention strategy development and validation of the developed strategy, that is, according to objectives. Figure 1.2 shows the research phases of the study. The first objective, which was to explore and describe the provision of cervical cancer screening services by PHCNs among women in Vhembe District, was achieved through triangulation of a qualitative research approach which is explorative, descriptive and contextual (de Vos et al., 2011:67).

The second objective, which was to assess the awareness in the utilization of cervical cancer screening services, was achieved by a quantitative research approach. The information in Table 1.2 is the summary of the qualitative and Table 1.3 quantitative research, that is, the research

design, objectives, setting, population, sampling, data collection, analysis, trustworthiness and validity. This will be described in detail in Chapter 3. Figure 1.2 present the three phases.

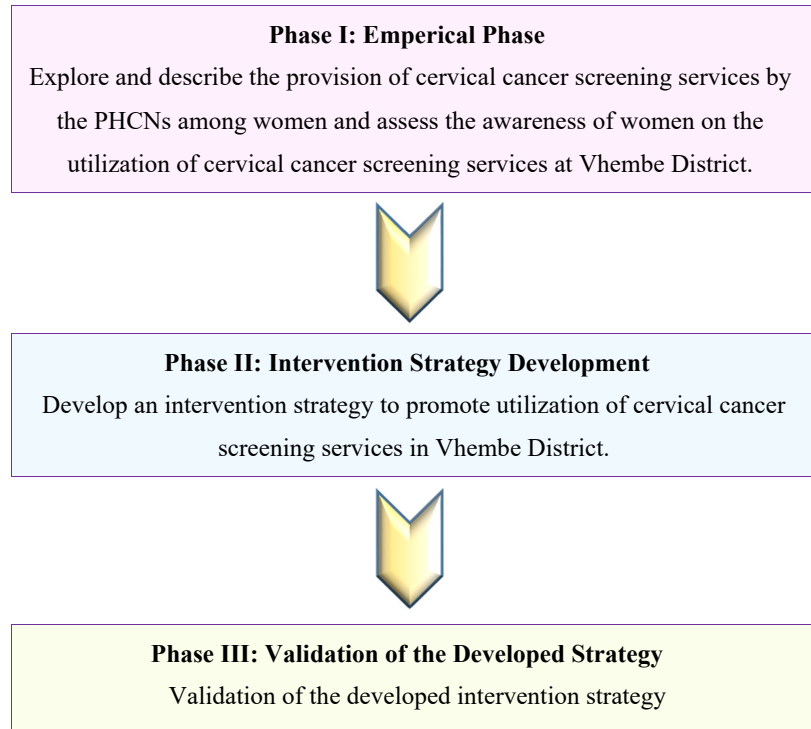


Figure 1.2: Research phases

Tables 1.2 and 1.3 indicated below is the summary of the qualitative and quantitative approach

Table 1.2: Summary of the qualitative approach

Research design	Special objective	Research setting	Research method				
			Population	Sampling and sample size	Data collection	Analysis	Trustworthiness
<ul style="list-style-type: none"> Qualitative 	<ul style="list-style-type: none"> Explore and describe the provision of cervical cancer screening services by PHCNs to women at Vhembe District in Limpopo Province. 	<ul style="list-style-type: none"> Vhembe District is far north of Limpopo Province Limpopo Province is divided into 5 districts Vhembe District is divided into 4 municipalities Clinics: 121 Capital - Thohoyandou Poor roads 	<ul style="list-style-type: none"> PHCNs providing cervical cancer screening services 	<ul style="list-style-type: none"> Non-probability purposive sampling: Women aged 20-59 years <p>Criteria</p> <ul style="list-style-type: none"> PHCNs who have done a course in pap smear procedure PHCNs who are rendering screening services. PHCNs who are available Interviews conducted until data saturation <p>Clinics</p> <ul style="list-style-type: none"> All the 4 Vhembe District municipalities and all the 18 local areas will be included Stratified random sampling will be used to select the clinics. Clinics from one local area will form a cluster. One clinic will be picked per cluster based on the number of cancer case 	<ul style="list-style-type: none"> Semi-structured interviews (Annexure F) Field notes were taken Voice-recorder was used Interview guide was used (Annexures F & G) 	<ul style="list-style-type: none"> Open-coding method Tesch's 8 steps done concurrently during data collection Theme, categories and sub-categories were developed 	<ul style="list-style-type: none"> Trustworthiness Credibility Dependability Transferability Confirmability

Table 1.3: Summary of the quantitative approach

Research design	Special objective	Research setting	Research method				
			Population	Sampling and sample size	Data collection	Analysis	Validity/reliability
<ul style="list-style-type: none"> Quantitative 	<ul style="list-style-type: none"> Assess the awareness of women on the utilization of cervical cancer by women at Vhembe District in Limpopo Province. 	<ul style="list-style-type: none"> Vhembe District is far north of Limpopo Province Limpopo Province is divided into 5 districts Vhembe District is divided into 4 municipalities Clinics: 121 Capital - Thohoyandou Poor roads 	<ul style="list-style-type: none"> Population of women in Vhembe District 1,293,783 Age group is 18-59 years, which is a high target group for cancer. 	<ul style="list-style-type: none"> Non-probability purposive sampling: Women aged 20-59 Clinics All the 4 Vhembe District municipalities clinics were included for sample representativeness Clustered random sampling 	<ul style="list-style-type: none"> Self-administered English or Venda questionnaire (Annexure H) 	<ul style="list-style-type: none"> SPSS was used Statistical or numerical data from the computer software spreadsheet programme, MS Excel, and descriptive statistical frequencies & percentages to summaries of collection data Univariate analysis using frequency distribution Graphic presentation 	<ul style="list-style-type: none"> Pilot study Validity Reliability

1.12.2 Summary of Research Process

1.12.2.1 Phase I: Explore and Describe Cervical Cancer Screening Services

Tables 1.2 and 1.3 summarize, respectively, the qualitative and quantitative approaches, i.e., research design, special objectives, research setting, research method (population, sampling and sample size, data collection, analysis, trustworthiness, validity/reliability) used in Phase I of the study.

1.12.2.2 Phase II: Strategy Development

A strategy is a plan designed to achieve a particular long-term project (Wehmeier et al., 2010:2002). In this study, the intervention strategy to promote utilization of cervical cancer screening services in Vhembe District SA was developed. The approach used to develop the intervention strategy included analysis of the Strengths, Weaknesses, Opportunities and Threats (SWOT) and Political, Economic Growth, Socio-Cultural, Technological, Laws and Environmental factors (PESTLE) within the opportunities and threats circumscribing the cervical cancer screening services in Vhembe District, SA. The SWOT analysis strategy involves assessing a situation on the basis of determining the resources, strengths, weaknesses, opportunities and threats of data collected from participants (Sciences for Health and UNICEF 2015:1215). PESTLE analysis is also a tool for analysis of a situation; it assists one to avoid taking actions that cause failure. In this research, the PESTLE within opportunities and threats landscape of cervical cancer screening services in Vhembe District of Limpopo Province were analyzed. The Build, Overcome, Explore and Minimize (BOEM) approach is used to develop a strategy by building from the strengths, overcoming the weaknesses, exploring the opportunities and minimizing the threats (Pearce, 2010:13). This will be discussed in detail in Chapter 5.

1.12.2.3 Phase III: Validation of the Developed Intervention Strategy

This phase involved intervention strategy validation and it took place after Phases I and II. Validation is a technique done to determine the credibility of empirical knowledge in relation to a scientific model of a discipline (Peggy et al., 2011:13). Empirical knowledge can be validated by

noting and sharing a view about what something is and how consistently it works without formerly testing these views using the methods of research (Peggy et al., 2011:13). The aim of this phase was to validate if the developed strategy will be used effectively to address the gaps identified during the research. A qualitative and quantitative research approach was used. PHCNs formed the population. Purposive sampling was used. The size of the sample comprised fifteen PHCNs and four managers. It was logical to collect data from PHCNs and managers because they are the agents who implement developed strategies in the clinics or supervise the implementation of the strategies.

1.13 Ethical Considerations

In both qualitative and quantitative research, ethical considerations are a set of rules of behaviour and morale that are honoured (de Vos et al., 2011:115). This will be discussed in detail in Chapter 3.

1.14 Outline of Chapters

Table 1.4 indicates the scope of each chapter in the research thesis.

Table 1.4: Outline of thesis chapters

Chapter 1	Overview of the study included the background, problem statement, purpose, research question, objectives, and significance of the study, paradigmatic perspectives, definitions of terms, a brief description of the research design, method, ethical measures and data analysis.
Chapter 2	Literature review was done after the collection of data and analysis to prevent information in the literature from influencing the researcher's objectivity.
Chapter 3	Research methodology. Mixed-method, that is, qualitative and quantitative research data are presented. The research methods, research design, research setting, population, sampling, data collection methods and instrument and data analysis of both quantitative and qualitative research is presented.
Chapter 4	Discussion of research findings that described the provision of cervical cancer screening services and the awareness of women on the utilization of cervical cancer screening services and intervention strategies used is presented.
Chapter 5	Development of the intervention strategies. Strengths, Weaknesses, Opportunities and Threats (SWOT) was used to analyze the situation. Political, Economical, Social, Technological, Laws and Environment factors (PESTLE) within opportunities and threats landscape of cervical cancer screening services were analyzed. The intervention strategy was developed by Building from the Strength, Overcoming Weaknesses, Exploring Opportunities and Minimizing Threats (BOEM).
Chapter 6	Conclusions, a brief summary of the study and limitations of the study done. Validation of the developed intervention strategies was done using PHCNs. Recommendation that the developed intervention strategy made should be used at the clinics by PHCNs, the community, other PHCNs, researchers and government in order to promote the utilization of cervical cancer services.

1.15 Summary

This chapter dealt with the overview of the study, including the background, problem statement, purpose, research question, objectives, significance of the study, paradigmatic perspectives, definition of terms, research methodology and ethical measures. A brief description of the research methodology was highlighted and an outline of the thesis chapters provided.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

A literature review identifies the body of literature which is relevant to the research, to indicate the relationship of the proposed research study to the literature (de Vos et al., 2011:109). The literature review may be deferred until after collection and analysis of data to avoid biasing the analysis and interpretation of data (Grove et al., 2013:265). In this study the literature review of published research findings and theories was thoroughly done during analysis and interpretation of data in order to confirm the research findings in the context of what is already known about strategies to promote utilization of cervical cancer screening services (Grove et al., 2013:265). According to Grove et al. (2013:130), the researcher conducts a literature control after the collection of data and analysis to prevent information in the literature from influencing her/his objectivity in qualitative research. According to Creswell (2014:50), in qualitative research, literature was used inductively towards the end of the study, so that it can be compared and contrasted with the outcomes of the study.

The purpose of the literature review is to:

- ∞ Introduce and conceptualize variables to be used throughout the research.
- ∞ Reveal different ways in which the proposed research study is similar to, or different from other previous studies conducted.
- ∞ Ensure the reviewers that the researcher understands the current issues related to the topic of the proposed research (de Vos et al., 2011:109).

2.2 The Provision of Cervical Cancer Screening Services

The second most common cancer affecting women worldwide is cancer of the cervix (Miller, Riddell, Franks, Ceballos, Ehlen & Kan, 2010:12). This strongly indicates that the provision of cervical cancer screening services need to be available and effective in all the clinics in order to succeed in the fight against cervical cancer.

2.2.1 The Provision of Cervical Cancer Screening Services by PHCNs

Worldwide, secondary prevention of cervical cancer is through cervical cancer screening (Utoo, Ngwan & Anzaku, 2013:1). There are three effective methods that are used for cervical cancer screening, i.e., Pap smear, visual inspection with acetic acid, and HPV testing—the most effective one being the Pap smear (WHO, 2012(b):3). In Pap smear and HPV testing, a vaginal speculum is inserted into the vagina, a wooden specular is used to scrub the cervix, smear it on the specimen glass and spray it with a fixation solution. The specimen will then be taken to the laboratory for detection of cancerous cells in the Pap smear or presence of HPV cells in HPV test (Lewis et al., 2007:1400).

In visual inspection with acetic acid, a vaginal speculum is inserted into the vagina, light is directed at the cervix, acetic acid is smeared on the cervix and changes are observed and interpreted for the presence of cancerous cells (Lewis et al., 2007:1400). Effective cervical cancer screening services need to be sustainable, targeting 70-80 % women (aged 30-60 years), depending on the availability of a cervical cancer screening programme to identify, assess, screen, treat and refer women (WHO, 2012(a):3). Screening is optimal when the smallest amount of resources is used to achieve the greatest benefit. The cost-effectiveness modelling used to compare screening services indicate that screening at 35 and 40 years has been predicted to reduce lifetime cancer risk by 65% (Sherris, Wittet, Kleine, Sellors, Luciani, Sankaranarayanan & Barone, 2014:78). This is because these age groups are more affected by cervical cancer. If many women of this age group are utilizing screening services, it will show that most women are affected by cervical cancer or, if they are negative, this is the right age group to be taught because they need to know about cervical cancer

and the services provided (Sherris et al., 2014:78). The screening interval is commonly 3-5 years between the pap smears. There are no obvious differences between cervical cancer screening guidelines of one country to another (CANSA, 2014:10). The American Pap smear guidelines indicate that women should start with a Pap smear at the age of 21. Before the age of 21 pre-cancerous cells can occur and heal spontaneously by themselves, hence resolving the problem. The UK reviewed the starting age of cervical cancer screening and moved from 21 to 25 years, but the interval remained the same as in SA and USA, that is, 3-5 years (Labeit et al., 2013:6). Cervical cancer screening programme performance will improve with enough emphasis on training, quality control and telemedicine-help for PHCN who are in clinical decision making (Mulindi, Mwanahamuntu, Saharabuddle, Blevins, Kapambwe, Shepherd & Chibwessha, 2013:8).

Presently, in Limpopo Province, the telemedicine is still piloted in the Provincial Hospital and three clinics utilizing specialists around SA. The use of a low adaptation of digital camera (digital cervicography) modelled after colposcopy enhancement of the cervix needs short training in order to use it. Medical practitioners will be able to project the cervical image on the camera monitor, bedside television or computer screen. The patient can also visualize this nurse-led cervical cancer screening targeting women with HIV (Mulindi et al., 2013:8). SA is implementing these guidelines in the provision of cervical cancer screening services. The cervical cancer screening national guideline programme was launched by the SA DoH in order to reduce the incidence of cervical cancer, reduce mortality and morbidity rate due to cervical cancer and reduce its burden on the community and department by providing an effective cervical cancer screening programme (Botha et al., 2010:24; Pillay, Knight & Rmaih, 2009:19).

2.2.2 Cervical Cancer Screening Services for Prevention of Cancer

Cervical cancer is one form of cancer that can be prevented because of the long pre-invasive period (Scarinci et al., 2010:253). Prevention and early detection of cervical cancer by cervical screening tests can contribute to the achievement of the SDGs (Ferlay et al., 2010:127). According to Denny (2010:72), primary prevention of cervical cancer is done by avoiding the causes, secondary

prevention is done by utilization of cervical cancer screening services and tertiary is through treatment of cervical cancer. The best method used to prevent cervical cancer is through utilization of cervical cancer screening services which is done systematically (Magawa, 2012:1). Utilization of cervical cancer screening services is effective if it is done systematically, yearly or every third year, depending on whether an individual is at risk or not (Lewis et al., 2007:1403; Richter, 2011:199).

Failure to utilize cervical cancer screening services predisposes women to cervical cancer because the disease progresses without them being aware (Lewis et al., 2007:1403). The available cervical cancer screening services are not utilized as expected as evidenced by failure to reach the projected coverage in the country (Lyimo & Beran, 2012:13). This confirms that despite the fact that cancer is preventable and that cervical cancer screening services are available, there is still a high number of new cases of cervical cancer, with approximately 130,000 new cases a year (WHO, 2012(a):3). Despite unprecedented opportunities for efficient and inexpensive prevention through cervical cancer screening, suitable for low-resource areas, the services are underutilized (Lyimo & Beran, 2012:7). The Care Model Approach improve the utilization of cervical cancer screening services. It is recognized in that the preventive care is an ongoing strategy and requires more proactive care than the health care system often provides (HRSA, 2012:10).

The Care Model is organized in six domains:

- ✎ **Organization of health care**, creates an environment where organized efforts to improve the preventive measures of cervical cancer takes hold and flourishes.
- ✎ **Clinical information systems** allow a clinician to have centralized and updated information about the status of patients and make follow-up to patients under their care.
- ✎ **Delivery system design** clarifies roles and tasks to ensure that the patient receive the care.
- ✎ **Decision support** uses the guidelines supported by a defining study.

- ∞ **Community support** improves the health of the whole population

- ∞ **Self-management support** involves effective self-management without somebody instructing you about what to do in order to take care of oneself and how to do it now and then (HRSA, 2012:10).

Prevention of cancer can be primary, secondary or tertiary as discussed below.

2.2.2.1 Primary Prevention

Primary prevention involves behavioural choices a woman can make on her own, without outside treatment or testing done by a health care worker (Lewis et al., 2007:1400). According to Denny (2010:10), primary prevention of cervical cancer is done by avoiding the causes. Primary prevention is supportive of efforts to increase public knowledge and the ability of women to make healthy lifestyle choices, creating environments that assist women in making healthy choices (National DoH, 2010:22). In cervical cancer, this is achieved by stopping smoking or preferably never starting because there is evidence that women who smoke are more susceptible to cervical cancer than women who do not smoke (National DoH, 2010:22). Morris et al. (2011:21) added that women who smoke are also infected with HPV and are about 14 times more likely to develop cervical cancer.

Using barrier methods during sexual intercourse to prevent the spread of HPV and other Sexually Transmitted Infections (STIs) (National DoH, 2010:22), it has been found that condoms and diaphragms provide some protection against cervical cancer and postponing sexual activity to older age and effectively managing STIs decreases parity (National DoH, 2010:22). Evidence also indicates that limited use of oral contraceptives may also be a possible form of primary prevention (Lewis et al., 2007:1400). Reproductive health education and information dissemination of smoking cessation and voluntary medical male circumcision of male sexual partners and male children reduces HPV transmission to female sexual partners by 35 percent (Morris et al., 2011:21).

Cervix or Gardasil is a vaccine used in the USA and SA for the prevention of infection by HPV which currently causes about 70% of cervical cancer (Lyimo & Beran, 2012:2). It is more effective if given before HPV infection sets in. It is given at the age of 9-26 years and is effective up to 31 years (Lyimo & Beran, 2012:2). Though vaccination is effective in preventing cervical cancer, it is not used in many countries, especially poor countries because it is expensive (Lyimo & Beran, 2012:2). Lack of knowledge about HPV and the negative attitude towards vaccination could make women not to go for cervical cancer vaccination (Farzaneh, Shirvani, Barouti, Salehpour, Khodakarami & Alizadeh, 2011:468). HPV vaccines given causes the cancer by helping the body to develop cervical cancer antibodies against HPV which prevents the development of cervical cancer (CDC, 2016:2). This confirms that there is a need to encourage women to utilize cheaper, but effective preventive measures such as cervical cancer screening services.

Knowledge about the prevention of cervical cancer is not enough to stop or detect cervical cancer early; going for Pap smear also plays a major role in early detection of cervical cancer. Effective prevention of cervical cancer needs to be confirmed by cervical screening results which may indicate whether cervical cancer is present or not. Women aged 30-65 years whose test results are negative should preferably combine a Pap smear with HPV test every 5 years (HHS, 2012:17). Though both primary and secondary prevention are available, the utilization of cervical cancer screening services remain low (Lim & Ojo, 2016:11).

2.2.2.2 Secondary Prevention

Secondary prevention involves a cervical cancer screening test which can detect precancerous cells of the cervix so that a woman may be treated before she actually develops cervical cancer (Lewis et al., 2007:1400; Scarinci et al., 2010:253). The Pap smear is a reliable, inexpensive and effective cervical cancer screening test for cervical cancer. According to Denny (2010:6), secondary prevention is done by utilization of cervical cancer screening services. Cervical cancer screening services are effective where the infrastructure for sustaining it has been successfully maintained. Very few developing countries have managed to start and successfully sustain the cervical cancer

screening services Denny (2010:6). Though cervical cancer screening services need financial support and political will for survival, European politicians were challenged to bring a solution for investigating cervical cancer prevention at a time of financial constraints, so organized population-based screening programmes (Demirtas, 2013:3264). The introduction of population-based cervical cancer screening programmes for secondary prevention of cervical cancer has contributed to a reduction in mortality and morbidity rates due to cervical cancer (Demirtas, 2013:3264).

2.2.2.3 Tertiary Prevention

Tertiary prevention involves the treatment of cancer by chemotherapy, radiation and surgery (Lewis et al., 2007:1400). Chemotherapy is when prescribed chemicals (cytotoxic agents) are given intravenously to destroy cancer cells on a selective basis by impairing the ability of cancer cells to replicate. Chemotherapy also renders a cancerous cell to be more sensitive to the effects of radiation (Anderson et al., 1994:222). That is why chemotherapy is used in combination with radiation. Radiation is when radioactive substance rays are used to treat cancer by destroying cancerous tissue (Anderson et al., 1994:960). Surgery is an ablation procedure done by a surgeon who cuts and removes part of the body that is affected by cancer.

2.2.3 HIV and the Provision of Cervical Cancer Screening

In sub-Saharan Africa, HIV/AIDS and cervical cancer screening care programmes are integrated (Mulindi et al., 2013:8). Evidence demonstrates that the utilization of cervical cancer prevention services in such integrated programmes by women of the general population is still low (Mulindi et al., 2013:8). The higher burden of HIV/AIDS and cervical cancer screening in developing countries deem it necessary for integrating services which offers early detection and treatment of both diseases (Odale, Torpey, Khamofu, Oladele, Adedokun, Chabikuli, Mukuddas, Usman, Aiyenigba & Okoye, 2013:176). Findings from the study by Odale et al. (2013:176) suggest that integrating via screening in the package of care offered to HIV-infected women is feasible and acceptable.

Cervical cancer screening should be added as a standard package of care in HIV/AIDS treatment programmes. This reduces financial losses by the government and women, and improves cervical cancer screening outcomes. A team of International Bio-Medical (IBM) experts recently presented a plan to the Kenyan Ministry of Health and USA Embassy in Kenya to encourage more women to go for cervical cancer screening because only 3% of women between the ages of 15-49 years request cervical cancer screening (Fishkin & Rosauer, 2012:10). IBM recommended that HIV care and treatment networks refer patients for cervical cancer screening (Fishkin & Rosauer, 2012:10). Cervical cancer screening should be added as a standard package of care in HIV/AIDS treatment programmes.

About 70.2% of women over the age of 30 years who had been diagnosed HIV-positivet also had high grade cervical dysplasia (Batra et al., 2010:8). According to Snyman (2012:2), SA data evidenced that cervical cancer appears up to 10 years earlier in HIV-positive women. It is diagnosed when it is more advanced resulting in more deaths due to cervical cancer as compared to HIV-negative women. A guideline of offering combined services, for example, HIV, tuberculosis (TB) and cancer in one visit used in the PHC services have a positive influence as it will reduce the number of visits per population (Batra et al., 2010:5). Cervical cancer screening rates are low, irrespective of an increase in HIV-positive status rates (Batra et al., 2010:7). The rates are as low as 4% among women of 15-65 years population (Batra, et al., 2010:5). According to Batra et al. (2010:9), efforts need to be increased in the guidelines for providing cervical cancer screening services to women who are HIV-positive because of the intra-epithelial neoplasm in HIV-positive women. The cervical cancer burden becomes worse, especially when considering challenges posed by HIV/AIDS, cholera, malaria and other prevalent diseases (Limpopo Vhembe District Profile, 2011:6). The HIV epidemic in SA have a disastrous effect on cervical cancer. This is because the women who is HIV-positive will undergo different tests and forms of counselling and before starting with antiretroviral treatment they need to undergo the cervical cancer screening. The repeat cervical cancer screening for HIV-positive women need to be even sooner than that of women who are HIV-negative.

2.2.4 The Cervical Cancer Screening Uptake

The cervical cancer screening uptake is 80%, even in the developing countries such as England (WHO, 2012:3). This statistic confirms that cervical cancer screening is still a major public health problem in the world, especially in low- and middle-income countries. It shows that the developed countries improvement of utilization of cervical cancer screening services resulted in reduction of cervical cancer cases. The present cervical cancer screening services need to be improved to underserved communities. In this case it means that combining these services still needs a strategy that motivates women to benefit from this combination of services (Baron, Melillo, Rimer, Coetes, Kerner, Habarta Chattopadhyay, Sabatino, Elder & Leeks, 2011:111; Bourne, Charles, Francis, South-Bourne & Peters 2010:478). Challenges that fail these women to utilize the available cervical cancer screening services together with other services need to be identified and solved so that there can be a change in utilizing the services.

2.2.5 Availability of Cervical Cancer Screening Services

The organization of the area where cervical cancer screening is done and the gender of the health worker who is going to do the cervical cancer screening are external factors that affect the availability and the utilization of cervical cancer screening services (Duran, 2011:1180). Female health workers were appreciated most in order to reduce embarrassment. This situation will ease the women's embarrassment as it will be a woman-to-woman situation. This can be achieved because the majority of nurses are females, especially the PHCNs. Inpatient cervical cancer screening, nurse-led screening, and cognition-emotion focused programmes are among the strategies used to promote attendance for cervical screening (Duran, 2011:1180; Maree & Wright, 2011:120; Gu, Chan, Twinn & Choi, 2012:2037).

Health professionals are perfectly suited to deal with the needs of women by educating patients and families. Health professionals can use the advantage of their holistic approach in providing health care and high patient contact (Damiani, Federico, Basso, Ronconi, Bianca Biazqchi, Nasi, Sassi, Anzellotti & Ricciardi, 2012:99). Nurses are particularly in a good position to enact such

changes in clinic settings because they can provide information about cervical cancer screening services, as they are in contact with women in a variety of settings.

2.2.6 Nurse-Led Health Providers Group

Groups of health care workers can be formed with a professional nurse being a leader; it can include other health workers (Maree & Wright, 2011:120; Damiani et al., 2012:99), for example, the nurse may meet a woman while she is obtaining prenatal or contraceptive care or when she brings a child for paediatric care and the nurse can involve other health workers in the care of the woman. Any of these times is ideal to discuss with the woman the need for routine cervical cancer screening. Nurses can take an advantage of any contact with women and teach them about cervical cancer prevention (Issah, Maree & Mwinituo, 2011:69). Presently this is what is done, so this covers women who are of child-bearing age because they are the ones who are mostly using contraceptives, hence attending family planning clinic. Women who will be caring for children in baby clinics are presently getting the chance to attend to the cervical cancer screening services.

2.2.7 Affordability of Cervical Cancer Screening Services

In Western Australia an Incentive Initiative Programme is being used and it is doing good in influencing women to utilize the cervical cancer screening services (Pavasic, 2012:34). Though the information of the types of incentives were not stated, but obviously women will go for services because they know that they are going to gain the health service and something in turn. Searches may be done as to what exactly will please women as incentives. Western Australia use various times for provision of cervical cancer screening services which covers almost all women because women make appointments which suit them best (Pavasic, 2012:34). This makes the services available, so it gives a woman an opportunity to undergo cervical screening either during the day or evening. So, this type of timing covers a large number of women.

2.2.7.1 Support to Cervical Cancer Screening Programmes

In the USA there is a Federal Funded National Breast and Cervical Cancer Early Detection

Program which provides breast and cervical cancer screening services. The CDC provide funds through the National Breast and Cervical Cancer Early Detection Program to state health agencies to provide breast and cervical cancer screening services for low income women who because of their situation would not have been able to access the services (Miller, 2014:2550).

In SA, the First for Women Insurance teamed with “Right for Care” – a Non Governmental Organization (NGO) provided a grant of R450.00 towards mobile cervical cancer screening services which offers screening to women in Thabo Mofutsanyane District in Free State (www.firstforwomen.co.za).

All these efforts are done by NGOs which have a concern for women, cervical cancer and cervical cancer screening services to support the government to be able to reach as many women as possible and to assist women to be prepared for cervical cancer screening. Kenya joined the The Joint United Nations Programme on HIV and AIDS (UNAIDS). Countries which join this programme will gain support because HIV services incorporate cervical cancer screening services. The Ministry of Health needs support from top researchers in order to be advised on matters related to cervical cancer screening services.

2.2.7.2 Free Cervical Cancer Screening Services

In many countries cervical cancer screening is free in public health institutions, whether the woman has been referred by the doctor or it is for routine checkings, but irrespective of that advantage, women are still not being screened in large numbers (Lewis et al., 2007:403; Magawa, 2012:1). Cervical cancer screening is free in the following countries, for example, SA (Labeit et al., 2013:8), UK and USA (HHS, 2012:7) and Western Australia (Pavistic, 2013:34). In many states of America women with lower income and those women without medical aids are reluctant to go for cervical cancer screening. The USA passed a law that cervical screening be covered in the medical aid, private insurances and public employee health plans (HHS, 2012:7).

There are programmes instituted to offer cervical cancer screening services to medically underserved communities and women who are of racial or ethnic minorities and this services are rendered at a very low cost or free so that they can reach as many women as possible. This inclusion of cervical cancer screening in the medical aids was introduced on 23 September 2010 and this differs from one state to another. This help those women who are having the medical aid to be done cervical cancer screening even if they do not have money (HHS, 2012:7). The CDC provides funds and support to each state programme (HHS, 2014:7).

This programme covers the medical treatment cost in case the cervical cancer screening results are positive. All these efforts are encouraging the women living in poor condition to access all the cervical cancer screening services for screening. All these measures are being instituted to ensure that women access the cervical screening services without cost. The medicare guidelines allow women to take a Pap smear as referred by the doctor or for routine screening in any health institution (Center for Medicare, 2015:3). Irrespective of the services being free or cervical cancer screening being included in the medicare women are not utilizing the cervical cancer screening services as speculated, women are still dying of cervical cancer. The decline is because the cervical cancer screening services are free in Canada (Black, 2009:11). Cervical cancer incidence in Canada has declined by 70% over the past 50 years, largely due to the work of provincial screening programmes that have promoted screening widely and made cervical cancer screening services readily available (Black, 2009:11).

2.2.8 Survival Rates of Women with Cervical Cancer

Europe has an incidence of 10.6% per 100,000 and this is because they take cervical cancer very serious, they have developed effective prevention programmes (Kesis et al., 2012:1423). Western Europe has lower incidence and mortality rate compared to central Europe (Kesis et al., 2012:1423). According to Denny (2010:73), estimates in Africa 78,879 women are diagnosed cervical cancer annually causing 61,671 deaths. The rate of cervical cancer screening in SA is 1 in every 42 South African women (Batra et al., 2010:7; CANSA, 2014:9). Only 20% of women in

SA have undergone cervical cancer screening. This ratio is very high and because cervical cancer is preventable, this ratio can be reduced by developing strategies by utilization of cervical cancer screening services (Batra et al., 2010:7; CANSA, 2014:9). This is because the nature of the African cervical cancer screening programmes used (Batra et al., 2010:7; CANSA, 2014:9).

Women younger than 50 years, 60% are affected more than those older than 50 years which accounts for 37% cervical cancer incidence (CDC, 2011:5). The low survival rate reveals that women are diagnosed with cervical cancer at a later stage, hence they die early (Lewis, 2007:1403). They are diagnosed late because they are not utilizing the cervical cancer screening services provided. Many countries are not doing enough to influence the utilization of cervical screening services. In 2010, Western Australia had 90 new cases of cervical cancer and 34 deaths due to cervical cancer, though 90% of those cervical cancers were preventable, by doing cervical cancer screening every 2 years (Pavusic, 2012:128). Cervical cancer is the second most common cancer in SA with the age standardized mortality rate of 21.0% as compared to worldwide age standardized mortality rate of 8.9% (Batra et al., 2010:5). This is because the available cervical cancer screening services are now overburdened by an increase of HIV-infected women and the increase in HPV associated with cervical intra-epithelial neoplasia which is 4-5 times greater than in the general population (Batra et al., 2010:5).

2.2.9 Involvement of Partners

Women are not only uncomfortable when it comes to health-related matters affecting their private parts, but they are also secretive about it. This influences their fear to utilize cervical cancer screening services. A feeling of the husband or male partner's involvement in their health affects their utilization of cervical cancer screening as this may engender wrong interpretations.

Some women depend on their husbands or male partners for emotional and financial support and there is no way that they can visit these cervical cancer screening services without their support (Lim & Ojo, 2016:11). So it means that such women's visit to cervical cancer screening services

will be influenced by the husband/partner's positive or negative inclination towards cervical cancer screening services. Husbands have to be given information about cervical cancer screening services.

On the other hand, women should be informed about their rights to decide for their health. Cervical cancer screening services are free so there is no need for women to request monies from their husbands. Lack of spousal support was identified by Lim & Ojo (2016:11) as impinging on effective use of cervical cancer screening services.

2.2.10 Primary Health Care Re-Engineering in South Africa

The launch of the initiative to re-engineer PHC in 2010 has given SA's longstanding commitment to the provision of PHC new impetus (Barron et al., 2010:115). The idea is to improve performance and access so that, for example, people can be diagnosed early and referred before their conditions deteriorate; routine care can be given, and those with chronic illnesses, such as those women with cervical cancer, can maintain their wellbeing by receiving regular care at a local level.

The strategies to be developed should take the opportunity of the re-engineered PHC so that it can be initiated with ease. The health of women should be maintained and cervical cancer screening services should be utilized fully in order to prevent cervical cancer, that is, the initial cervical screening and follow-ups.

2.2.11 Cervical Cancer Screening Services in Vhembe District.

Audit Opinions of the District and Local Municipalities for 2011 reflected that Vhembe District Municipality poverty percentage 55.85%, Makhado Municipality 64.29%, Musina 24.21%, Mutale 66.08% and Thulamela Municipality 68.81% (Limpopo Province DoH, 2011:6). The audit outcomes of the Vhembe District revealed that two of the local municipalities are still poor. Vhembe has the second lowest access to infrastructure amongst districts in the province (Limpopo Province DoH, 2011:6). With regard to the vulnerability classification of Vhembe District

municipalities, two of the four local municipalities in the Vhembe District fall into the most vulnerable category, that is Thulamela and Mutale. Second most vulnerable is Makhado.

Second highest performing is Musina. This classification is according to spatial location, based upon results from indicator sets on functionality, socio-economic profile and backlog status (Limpopo Province DoH, 2011:6). Poverty makes it difficult for women in Vhembe District to have money for transport to go for cervical cancer screening services. This confirms that there are difficulties in the Vhembe District for women to utilize cervical cancer screening services because of poverty (Limpopo Province DoH, 2011:6). This suggests that strategies should be used to suite or address these health priorities.

2.3 Awareness Assessment of Women on the Utilization of Cervical Cancer Screening Services

Factors associated with poor utilization of cervical cancer screening services are fear of embarrassment, pain or cancer (Arulogun & Maxwell, 2012:11). Studies have shown that 72% of cancer patients indicated that they were treated differently after diagnosis than they were before having cancer. Women who want to avoid the negative connotations associated with the disease and the change in social interactions that may occur when they are diagnosed may therefore avoid screening or treatment altogether (Arulogun & Maxwell, 2012:11). There are stigmas and cultural factors surrounding both pap smears and cancer of the cervix, so this discourages women to use cervical cancer screening services.

Women need to be aware of the cervical cancer screening services in order for them to utilize such services accessible to them. On the other hand, the government will need the latest information in order to render effective cervical cancer screening services and to motivate a large number of women to utilize these services. Factors that influenced uptake include lack of awareness about where to get screened, cost, attitude of health workers and delay in hospitals cancer screening. Education improved uptake of cervical cancer screening. Cervical cancer screening uptake is still very poor, although the awareness of cervical screening was fairly high. There is still a dire need

to create more awareness and make the services available so as to improve the uptake of cervical cancer screening. Cervical cancer screening services could be utilized better if cervical cancer screening awareness campaigns are sustained and the services are accessible, affordable and available (Bammeke, 2014:91). The awareness discussed below has been classified under accessibility, acceptability, availability and affordability.

2.3.1 Accessibility to Cervical Cancer Screening Information

2.3.1.1 Mass Media Campaigns on Cervical Cancer and Cervical Cancer Screening Services

Mass media campaigns is a known strategy that can increase utilization of cervical cancer screening services (Utoo et al., 2013:3). Mass media can touch more women from less and more advantaged areas, but it cannot be effective enough to reach all women, especially when used alone. Mass media alone influence the behaviour of those who are most advantaged and those most at risk in rural areas do not benefit. Individuals in society tend to adopt new ideas faster than others depending on their individual conditions (Utoo et al., 2013:3). Sustaining the use of mass media techniques which are free of charge or on subsidized rates such as public buses, newspapers, radio and television will facilitate accessibility of information through the media (Utoo et al., 2013:3). It works best when combined with other strategies. Although evidence is lacking about the exact combination of strategies that work best. There is no study that has measured media campaigns in promoting utilization of cervical cancer screening services. There is still a chance to decrease cervical cancer incidence and mortality further by increasing the number of women utilizing cervical cancer screening services regularly, at least once every 2 years. Women living in rural and developing countries, especially those who are at risk of cervical cancer are diagnosed at a more advanced stage. So it is crucial that the different strategies used to promote utilization of cervical cancer screening should reach this target group. Low socio-economic status has been associated with lower intake cervical cancer screening services, so a combination of mass media and other strategies can make a change (Montoya 2011:79).

2.3.1.2 Use of Software for Cervical Cancer Screening Services Information

USA President's Emergency Plan for HIV-diagnosed women are four times more likely to develop cervical abnormalities which can lead to cancer. It suggested that the country's District Health Information Software include capturing and analyzing cervical cancer information and statistics (Fishkin & Rosauer, 2012:10). This information will be accessed by women who are able to use computers and they will read the information at their own time and pace. The numbers may make women realize the seriousness of the condition and they may be awakened by that and seek cervical cancer screening services.

2.3.1.3 Cervical Cancer Screening Services Information Using Media

The health calendar indicates that in SA, 01-30 September every year is awareness month when awareness campaign are conducted (CANSAs, 2014:10). CANSAs women's health deals with women cancer. It urges survivors of female cancer to encourage one another to live a balanced lifestyle, to go for cervical cancer screening so that their risk and cancer treatment and recurrence can be reduced. CANSAs provides mobile cervical cancer screening services to women living in remote areas (CANSAs, 2014:10). In the study conducted by Utoo et al. (2013:3), most women were aware of cervical cancer and cervical cancer screening services, but the utilization of the services was very poor. Prohibitive costs, ignorance, absence of screening centres, physician's non-recommendation and perceived non-necessity faith in God, among others, discourage the utilization of cervical cancer screening services. Health Education Research Media interventions to increase cervical screening update in SA are being used. SA uses a powerful intervention package which is modelled on Soul City as seen on television. It is a known mass media intervention that includes photo comics and elevation drama. Though Soul City can reach as many women as possible, it cannot cover them all, it also needs to be implemented with other strategies to cater for those who are not covered by Soul City.

Information heard over the radio can reach many women and be understood and remembered better than pictures that can be seen and read from a booklet or a paper. According to a study conducted

in SA, women who received a carefully designed cervical screening education photo-comic did not increase uptake of cervical screening services over a 6-month follow-up period (Mookeng, Mavundla & McFarland, 2010:29). The study where a broadcast radio-drama with the same message was seen appeared to have had a positive effect on cervical screening uptake. This confirmed that use of a broadcast media is more effective in making women to understand and be influenced (Mookeng et al., 2010:29). Most of the families have at least one type of media and thus access to media. It will be easy to reach women using their own languages for understanding of the information given (Abdullahi, Copping, Kessel, Luck & Bonell, 2009:683).

Monitoring may be done by mailing letters, number of women who attended a reaching session, brochures distribution and these materials will be able to remind women more than once throughout the day since it is within reach. During the woman's birthday the celebration will include being reminded about cervical cancer information. Use of invitation letter with a date for consultation works more effectively than the one where the client has to choose when to come in order to increase uptake of Pap smear.

Interpersonal communication was most effective, like telephone invitations to those who have either a cell phone or a landline. England government has introduced a computerized call-recall system which invited many women for cervical cancer (Labeit et al., 2013:6). Women respond to this invitation in large numbers. It keeps contact with women who are to come for a follow-up. It recalls the women after every 3 or 5 years for a follow-up if necessary (Labeit et al., 2013:6). In England they also use the National Health System Call and recall system which they use to invite women who are registered with the general practitioner to come for cervical cancer screening services (Labeit et al., 2013:6). They also use for awareness the teal ribbon symbolizing cancer of the cervix. So if used it will make many women aware of what is presently happening with the red ribbon for AIDS/HIV. There are people who draw tattoos related to the ribbon and the colour that symbolizes cervical cancer which if used by those who favour tattoos they will be aware themselves and make others aware about cervical cancer.

Thailand's strategy of increasing the uptake is by using local lay health volunteers to send reminders and invitation letters, make follow-ups and implement educational intervention. One volunteer is allocated 10 houses in the village (WHO, 2012:3). A systematic review of the interventions to increase cervical screening uptake among Asian women upheld multidisciplinary interventions screening. Educational brochures were designed to address cervical cancer screening issues. Birthday cards with the focus logo are bought from the shops, targeted mailing and doorknob hangers, one-to-one educational sessions in women's homes, use of posters with cervical-cancer-screening-related information; however, process evaluation measures should be put in place in order to assess the effectiveness of the strategies use.

2.3.1.4 Community-Based and Group Education Programmes

Asian woman workplace community-based and group education programmes are used to reinforce cultural awareness and to assist health workers to overcome cultural and language barriers related to cervical cancer screening (Abdullahi, 2009:683). Use of media campaigns and mailed culturally sensitive print materials will make women to accept the information rather than if their culture is violated. This will speed up their response to the information they have received (Ackerson, 2010:137). In this group, women assist one another as they share the same culture and language because they live together. They are able to agree on scheduling or attending cervical screening services at the clinic or mobile clinic. All these confirm that one strategy alone proved not to be better than the multidisciplinary approach (Abdullahi, 2009:683).

2.3.1.5 Communication Strategies Regarding Cervical Cancer Screening Services

The health calendar indicates that in SA from 01-30 September of every year is awareness month. The awareness campaign are conducted (CANSAs, 2014:10). CANSAs women's health deals with female cancers, urging survivors to encourage one another to live a balanced lifestyle, to go for cervical cancer screening so that their risk and cancer treatment and recurrence is lowered. CANSAs provides mobile cervical cancer screening services to women in remote areas (CANSAs,

2014:10). In the study conducted by Utoo et al. (2013:3), most women were aware of cervical cancer and cervical cancer screening services, but the utilization was very poor. High costs, ignorance, absence of screening centres, non-recommendation by physicians and non-necessity influenced by one's faith in God among others discourage utilization of cervical cancer screening services (Utoo et al., 2013:3). According to Singh & Badaya (2012:7), there is limited knowledge of Indian women about women who are susceptible to cervical cancer.

2.3.1.6 On-Spot Teaching About Cervical Cancer Screening

The relationship of the cervical cancer screening services provider with women who come for cervical cancer screening services plays a major role to convincing women for cervical cancer screening. According to Bingham, Bishop, Coffey, Winkler, Bradey, Dzumba & Agurto (2012:11), women in Peru, Kenya, Mexico and SA indicated that it is important for the cervical cancer screening services provider to take time to convince them answering, explaining the method of doing cervical cancer screening and encouraging them by talking simply, gently and softly.

2.3.1.7 Partnership with the Community

The strategies that are used in Canada to increase the utilization of cervical cancer screening services are by building partnerships in their communities; creating brochures or other educational material that reflect women's lives; organizing a day or week dedicated to cervical cancer screening services; bringing services to the women who live in remote areas; offering drop-in appointments; using creative technology for hard-to-reach populations, organizing health conferences and cervical screening events (Black, 2009:10). A one-day or more days dedication which is well-advertized will attract many women who will be available and have heard the invitation will turn up. Working hand-in-hand with the community will ease understanding of each other's role and what cervical cancer is. Brochures and other educational material which are easy to follow will reinforce what the nurses have taught the women, Other strategies that are being used are women feast where a free party is hosted in the community where there is food, educational classes about cervical cancer and screening and other tests are being done (Montoya,

2011:12). Many women enjoy parties, so if a party has the fever of the usual parties it will attract women and this will make them attend. The party going women will benefit from such arrangements.

2.3.2 Knowledge About Cervical Cancer and Screening

Knowledge about the cervical cancer, cervical cancer screening and treatment is of importance. All cervical cancers are associated with persistent HPV infection during teenage life, although not all women infected with HPV will get cervical cancer (Lewis et al., 2007:1403). It is believed that almost all cervical cancer cases worldwide are now highly associated with HPV, which is a sexually transmitted infective agent (Hoque, 2010:127). HPV is the main currently causative agent of cervical cancer in SA that led to the development of the HPV vaccine (Richter, 2012:2). Usually HPV remains dormant or clears up naturally, but it can progress to cervical cancer (The South African Health News Service, 2012:3). A recent study by Hoque (2012:127) indicates that worldwide HPV prevalence in cervical cancers is 99.7%, although its exact role in the development of cervical cancer is not clear. Hoque further found that 60% of college age women who had HPV are at risk of having cervical cancer (Hoque, 2012:127). It is safe and cost-effective if women who are 30 years and older are tested for HPV every 3 years with or without cytology (Ritcher, 2011:199). In sub-Saharan Africa, HPV cancer is high (Ritcher, 2012:199). Recurring sexually transmitted diseases, viral infections such as genital warts and herpes, becoming sexually active at an early age, having multiple sexual partners or a partner who has multiple partners, smoking, multiple pregnancies, poor nutrition, oral contraceptive use, increasing age, and illiteracy are common risk factors associated with cervical cancer (Duran, 2011:1179; Bello, Enebo & Adewole 2011:25; Lewis, 2007:1400). Most South Africans are vulnerable to cervical cancer because most of them are living in low socio-economic conditions. Women of poor socio-economic status are mostly vulnerable (The South African News Service, 2014:3). Cervical cancer is the second most common cancer in blacks, responsible for 31% of the cancer burden in this population (National Health Laboratory Service, 2012:3). This confirms that blacks are more vulnerable to cervical cancer than whites, so, there is a need to make black women utilize the cervical cancer screening.

The majority of people in Vhembe District are blacks and most women living there are not utilizing the cervical cancer screening services (DoH, 2009:948; Limpopo Vhembe District Profile, 2011-12:8). Signs and symptoms of cervical cancer often go unnoticed as they mimic so many other ailments. Many women pass these symptoms off as premenstrual syndrome or ovulation pains. Symptoms usually appear when cervical cancer is more advanced (Lewis et al., 2007:1400).

Some women do not have the correct information about cervical cancer and there are stigmas related to cervical cancer screening procedures (Bingham et al., 2012:7). The most common reason being done cervical cancer screening was from the physicians' or other health workers' advice and for those who were not screened it was because there was no recommendation by health providers and also because of lack of knowledge about the Pap smear. The study that was done by Abrahams, Wood & Jewkes (2012:77) on women concerning their knowledge on the reproductive system structures indicated that women did not recognize the word cervix nor distinguished different parts of the womb. According to the researcher, knowledge about these body parts will make the woman to understand cervical cancer and cervical cancer screening procedures and this knowledge has very important implications in the development of health educational strategies and materials to be used. Latin America and Caribbean women cannot distinguish the types of cancer affecting woman, hence, they don't know that cancer is preventable (Bingham et al., 2012:7). The results of the study that was done to identify the relationship of women's inadequate knowledge and practice of the Pap smear indicated that of the 44.3% of the women who have heard about the Pap smear, only about 27.1% have had a Pap smear at least once in their lifetime. Even among those who had heard about the Pap smear, only 40% had good knowledge about the procedure (Bingham et al., 2012:7)

Improvement of the educational and socio-economic situations should improve the utilization of cervical cancer screening services only if health care providers give the relevant information to women. Women should also accept the responsibility of taking an initiative to avail themselves of cervical cancer screening services. The success of cervical cancer screening services will depend

largely, amongst others, the level of cervical cancer awareness of women about cervical cancer and their willingness to utilize the service mostly for secondary prevention of cervical cancer. Ramathuba, Ngambi, Khoza & Ramakuela (2016:1004). indicated that in order to increase utilization of cervical cancer screening services measures to increase awareness and knowledge of women about cervical cancer and prevention should also be increased.

Findings reveal that though Nigerian market women have a fair knowledge of cervical cancer, the practice of cervical cancer screening was poor (Balogun, Odukoya, Oyediran & Ujomu, 2012:77). Women in Canada are educated from a young age about the importance on cervical cancer screening (Black, 2009:11). According to Maree & Moitse (2014:3), a specific HIV service provider were more knowledgeable about cervical cancer and cervical cancer screening than those of unknown HIV status who participated in previous studies. Knowledge was low. Having knowledge did not necessarily mean having had a cervical cancer screening service.

The other sources of information to women are very poor in the type of facts given. In one of the research studies conducted, the women interviewed had a variety of different explanations for why one should have a cervical cancer screening, some women had very little understanding, some had cervical cancer screening because their sister told them to do so or they trusted in the health workers' authority, even when they were asymptomatic and had little perception of what a cervical cancer screening was all about (Abrahams et al., 2012:78).

To resolve this problem, a pilot of a systematic approach through a simple household register and sisters inviting for screening those women of the right age in particular households once in ten years was implemented (Abrahams et al., 2012:78). This was effective in the sense that at least every women was contacted once within a period of 10 years. This method did not even overload the health worker because very few women were turning out at the health provider and at a time. Untreated infections caused by HPV, especially HPV-16 and -18, increase the risk for cervical cancer (Abrahams et al., 2012:74). Some HPV-positive women have very limited awareness of

HPV being a sexually transmitted disease as they are provided with insufficient education because of social and ethical considerations which do not allow them to be given such information (Bingham et al., 2011:8). It is therefore important to identify women who are at risk through cervical screening and also determine the presence of HPV. This shows that there is a need to improve understanding of women about the linkage between sexual behaviour, contact with HPV and development of cervical cancer and the utilization of cervical cancer screening. These will bring about a better understanding of the linkages of these aspects and, hence, improvement of utilization of the cervical cancer screening services.

This indicates that if dissemination of information to women is strategized well, the flow of women to the service provider for cervical cancer screening and the workload to the service provider will be controlled. All these suggest that utilization of cervical cancer screening services is still a huge challenge in prevention of cervical cancer. Knowledge is power needed to enable women to beat this challenge so that they can increasingly utilize cervical cancer screening services.

2.3.3 Attitudes and Cultural Beliefs Towards Cervical Cancer and Cervical Cancer Screening

It was identified that negative attitudes about cervical cancer screening are much higher among women (Lim & Oto, 2016:3). Discomfort, embarrassment, fear of the Pap smear results or economic problems are the main barriers to taking a Pap smear (Lim & Oto, 2016:3). Women in many countries have fear of cancer itself, the image of cancer and gynaecological care make them reluctant to go for cervical cancer screening services.

Some women have an attitude that it is not necessary to go for a Pap smear or if one is not ill or if there is no signs and symptoms (Bingham et al., 2011:8). It is important for health workers to be aware of these feelings and behaviours and consider strategies to be implemented to address them. In Kenya, it is a stigma to have cervical cancer as it is believed that cervical cancer will cause the womb to be cut, loss of womanhood, sexuality and becoming sexuality disabled.

In Mexico, cervical cancer is viewed as a disease that makes the womb rotten (Bingham et al., 2011:8). Several women think that uterine cancer was caused by sleeping around, particularly marital infidelity, thus discouraging women to go for cervical cancer screening in fear of being stigmatized or being regarded as having low morals (Abrahams et al., 2010:78). In Bolivia, women do not attend cervical cancer screening because they think that it is used to diagnose all vaginal problems and cervical cancer is a death sentence from which they are going to die slowly and painfully (Bingham et al., 2011:8).

Some women believe that the role of cervical cancer screening is to diagnose infection (Abrahams et al., 2010:77). The woman will be afraid even to tell her partner since cervical cancer screening is confused with the AIDS test or STI testing, especially because HPV is related to STIs and it causes cervical cancer (Bingham et al., 2012:8). This situation discourages married women to utilize cervical cancer screening services as it will raise suspicions that they are having extramarital sexual relations and the reason why they want to go for cervical cancer screening to test for infections. In SA, cervical cancer screening is regarded as “hanging the legs” as dirty and promiscuous (Bingham et al., 2012:9). Such women will need to be informed about cervical cancer screening in order to change their attitudes.

Increasing the acceptance of the Pap smear is culture-specific and must be addressed in the appropriate health beliefs and attitudes (Seow, Huang & Straughan, 2015:225; Ramathuba, 2016:5). Culture have an impact, especially on matters related to exposing your private parts or observing the private part (Maree & Wright, 2011:120). Thus, health care professionals need to understand how cultural values and beliefs influence cervical cancer screening practice and develop programmes using culturally acceptable messages and strategies (Duran, 2011:1180; Maree & Wright, 2011:6). Such efforts should include influencing awareness and perceptions by using public education, reducing barriers by creating an appropriate environment for provision of cervical cancer screening services (Nakalevu, 2009:39).

Part of the goals of the International Conference on Population and Development is to reduce unmet health challenges that involve changes in attitudes that prevent women and girls from exercising their Reproductive Health Rights by 2015 (Lim & Oto, 2016:4). This will be done to control power relations between men and women (United Nations Population Fund, 2010:23), and to prevent marriages that put some women at risk of developing cervical cancer and seeking cervical cancer screening for diagnosis and treatment when cervical cancer is already advanced (Lewis, 2007:1400).

Some women view reproductive structures as body parts that are private, even in health-related matters and this disadvantages them because they will not go for cervical cancer screening to prevent cervical cancer. These will make woman to only seek for cervical screening when they feel the symptoms and by then their health status will be bad. Women feel embarrassed to discuss and open their private area for a stranger male person to touch the area. Muslim women are forbidden to expose their private parts. Women do not want to expose their private parts in the presence of another woman-worse if they are to do that for male PHCNs to attend to their private parts (Bingham et al., 2012:13). This makes women reluctant to go for cervical cancer screening. The hygiene of the cervical cancer screening services clinic or the area where cervical cancer screening services are provided can either discourage or encourage the woman to utilize the service. According to Bingham et al. (2012:16), it was revealed that women were sensitive to the cleanliness of the health provider environment and instruments which, if acceptable, encouraged them to be screened. They did not want a dirty vaginal speculum to be inserted into their vagina.

2.3.4 Strategies Used for Utilization of Cervical Cancer Screening Services

The researcher observed that a single strategy may not be effective in promoting women to utilize cervical cancer screening services. There is no one strategy that can be used alone and become effective. Different activities are done in order to promote the utilization of cervical cancer screening services. To make the information reach women with ease, incentives and support are given, cervical cancer screening services are made more accessible, and so on. Many strategies,

for example, are used just to reach women. The strategies explained below have been used to influence women to utilize cervical cancer screening services.

2.3.4.1 Use of Lay Health Volunteers to Reach Women

Thailand's strategy of increasing the uptake is by using local lay health volunteers to send reminders and invitation letters, make follow-ups and implement educational intervention. One volunteer is allocated 10 houses in the village (WHO, 2012:3). Home-based cares are presently available in Vhembe District. They are allocated villages. They offer care to patients who are very ill due to different diseases. They, amongst other things, bath, feed, teach, and assist the family to care for their patients. They report once a week to the PHCN at the clinic.

2.3.4.2 Multidisciplinary Interventions

A systematic review of the interventions to increase breast and cervical screening uptake among Asian women promoted the use of multidisciplinary interventions screening (Moritz, Lorenze, Sylos & Straus, 2012:413). In clinics there are different health workers, for example, the PHCNs, doctors and counsellors. Other health workers visit the clinics occasionally to render their services. The PHCNs at the clinic refer patients to come back on a particular date. A church programme, including the minister and health educator programme are included for female church members. This gives them the chance to inform church mothers about cervical cancer screening services and related matters.

2.3.4.3 Community-Based and Group Education Programmes

Asian woman workplace community-based and group education programmes are used in overcoming cultural awareness and to assist health workers to overcome cultural and language barriers related to cervical cancer screening (Moritz et al., 2012:413). The use of media campaigns and mailed culturally sensitive print materials will make women to accept the information rather than when their culture is violated. In this group, women assist one another as they share the same culture and language because they live together. They are able to agree on scheduling or attending

cervical screening services at the clinic or mobile clinic. All these confirm that one strategy alone proved not to be better off than multidisciplinary approach (Moritz et al., 2012:413).

2.3.4.4 National Health Research

The National Health Research (NHR) has a project with a title of strategies to increase cervical screening uptake at first invitation. The research type is primary research. The status is research in progress, It started November 2011 and the publication date is May 2016. The chief investigator is profession Henry Kitchener with his co-investigators (NHR, 2012:22). This will be a way of assessing and improving cervical cancer screening services enabling positive changes to be made.

2.3.4.5 The Care Model Approach

The Care Model Approach improves the utilization of cervical cancer screening services. It is recognized that preventive care is an ongoing process and requires more proactive care than the health care system often provides (HRSA, 2012:10). The model is organized in 6 domains: organization of health care, clinical information systems, delivery system design, decision support, community and self-management support (HRSA, 2012:10). The organization of health domain creates an environment where organized efforts to improve the preventive measures of cervical cancer takes hold and flourishes. The clinical information system allows a clinician to have centralized and updated information about the status of patients and make follow-up on patients under their care. The delivery system design clarifies roles and tasks to ensure that the patient receives the care. The decision support domain uses the guidelines supported by a defining study. A health care organization integrates these guidelines into the day-to-day practice of primary care providers in an accessible and easy to use manner This will enable each women and the health worker to act accordingly (HRSA, 2012:10).

The community domain improves the health of the whole population. A health care organization reaches out to form powerful alliances and partnerships with state programmes, clubs, schools, businesses and local agencies. Monthly classes conducted by lay health educators under the

supervision of professional nurses should be attended by community women. Women may feel comfortable when served in their community groups where they are able to identify themselves with other women. This will be because they will be sharing common things, they will also be able to convince one another as they know each other. Monthly classes will be planned in favour of many of the women in the group (HRSA, 2012:10).

Different women will gather at different times or venues as it suites them. Location of cervical cancer screening services that affect its utilization because of more time that will be needed to go to the service will be resolved. Money needed for transport or the need for women to walk long distance will not be felt as they will be doing that as a group. Availability of transport also becomes a problem. In some areas transport pass once or twice per day, so if you miss it you don't have other means of transport for the day, so as a group they may be able to use common organized transport.

The pattern of cervical cancer screening services that expect women to come for cervical cancer screening, follow-up results, diagnose and treatment become too expensive for a woman who is healthy and does not work. These many trips to and from the cervical cancer screening services discourage them from utilizing cervical cancer screening services, but as a group they may come with a better outlook of helping one another to an extent that it works.

2.3.4.6 Self-Management Support Domain

The self-management support domain involves effective self-management without somebody instructing you about what to do in order to take care of yourself and how to do it now and then. The clients have a central role in determining their care and one that fosters a sense of responsibility for their own health (HRSA, 2012:10). One can observe that a combination of these domains enable the information about cervical cancer screening services to reach, motivate and challenge the community, thereby promoting the utilization of about cervical cancer screening services from intrinsic motivation, where one will decide for oneself on what to do.

2.3.4.7 Use of Feast

Other strategies that are being used are women feasts where a free party is hosted in the community where there is food, educational classes about cervical cancer and screening and other tests are being done. Many women enjoy parties, so if the party have the fever of the usual parties it will attract women and this will make them attend. The party going women will benefit from such arrangement.

2.3.4.8 Family Support

Women are afraid of health-related matters affecting the private parts, they are also secretive about it (Lim & Oto, 2016:4). This influences their fear to utilize cervical cancer screening services. A feeling of the husband or male partner involvement in their health affects their utilization of cervical cancer screening as this may bring wrong interpretations (Lim & Oto, 2016:4). Some women depend on their husbands or male partners for emotional and financial support and will not visit cervical cancer screening services without their endorsement (Lim & Oto, 2016:4). This suggests that such women's visit cervical cancer screening services will depend on whether the husband/partner is positive or negative about cervical cancer screening services. Husbands have to be given information about cervical cancer screening services. On the other hand, women should be informed about their rights to decide for their health. Cervical cancer screening services are free so there is a need for women to request money from their husbands. The government should try to bring the services closer to the women as possible so that they may not need to use money for transport to the service.

2.4 Summary

The literature review highlighted important aspects of cervical screening that could be further addressed by promoting strategies to utilize cervical cancer screening services. Various methods for provision of cervical cancer screening services have been covered. Assessing women's health beliefs, inpatient cervical cancer screening, cognition-emotion, nurse-led screening and other

focused programmes are among the strategies commonly used to promote attendance for cervical cancer screening services. The literature review also identified valuable information on cervical screening and areas that could be improved in meeting women's needs. More vigorous efforts are needed to develop and enhance strategies that will encourage women to utilize cervical cancer screening services.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This chapter focuses on the description of the research design and methods of data collection and analysis that was used in Phase I of this study. A mixed research method was used in Phase I of this study, and both the qualitative and quantitative research designs are discussed. A qualitative research approach which is explorative, descriptive and contextual was used to achieve the first objective which was to explore and describe the provision of cervical cancer screening services by PHCNs among women in Vhembe District and the second objective, which is to assess the awareness in the utilization of cervical cancer screening services was met through a quantitative research approach. The chapter will also include the provision and discussion of measures to ensure trustworthiness, ethical considerations, strategy development and validation methods. According to de Vos et al. (2011:71) methodological triangulation is reached when two methods of research are used in the same study or when more than one methods used to collect data. In this research study, triangulation of the research methods and data collection methods was used because data was collected through interviews and the use of a questionnaire.

3.2 Research Setting

Limpopo Province is one of the nine provinces in SA. It is divided into five districts, namely, Vhembe District Municipality, located in north; Mopani to the south east; Capricorn to the south-west; Waterberg to the west; and Sekhukhune to the south east. It is strategically positioned as it also shares borders with Botswana in the north east, Zimbabwe in the north and Mozambique in the eastern part, through the Kruger National Park (DoH, 2009:948). It covers 18,569 square kilometers. Vhembe District incorporates all territories that were the former Venda Bantustan and districts of northern and Western Gazankulu Bantustan, hence the ethnic diversity of the district.

The main geographic features of the district are the Soutpansberg mountains (DoH, 2009:948). The study was conducted in Vhembe District which is divided into four municipalities, that is, Thulamela, Makhado, Mutale and Musina. Figure 3.1 shows areas where PHCNs provide cervical cancer screening in the four municipalities, that is, their physical clinics, community health centres and mobile clinics.

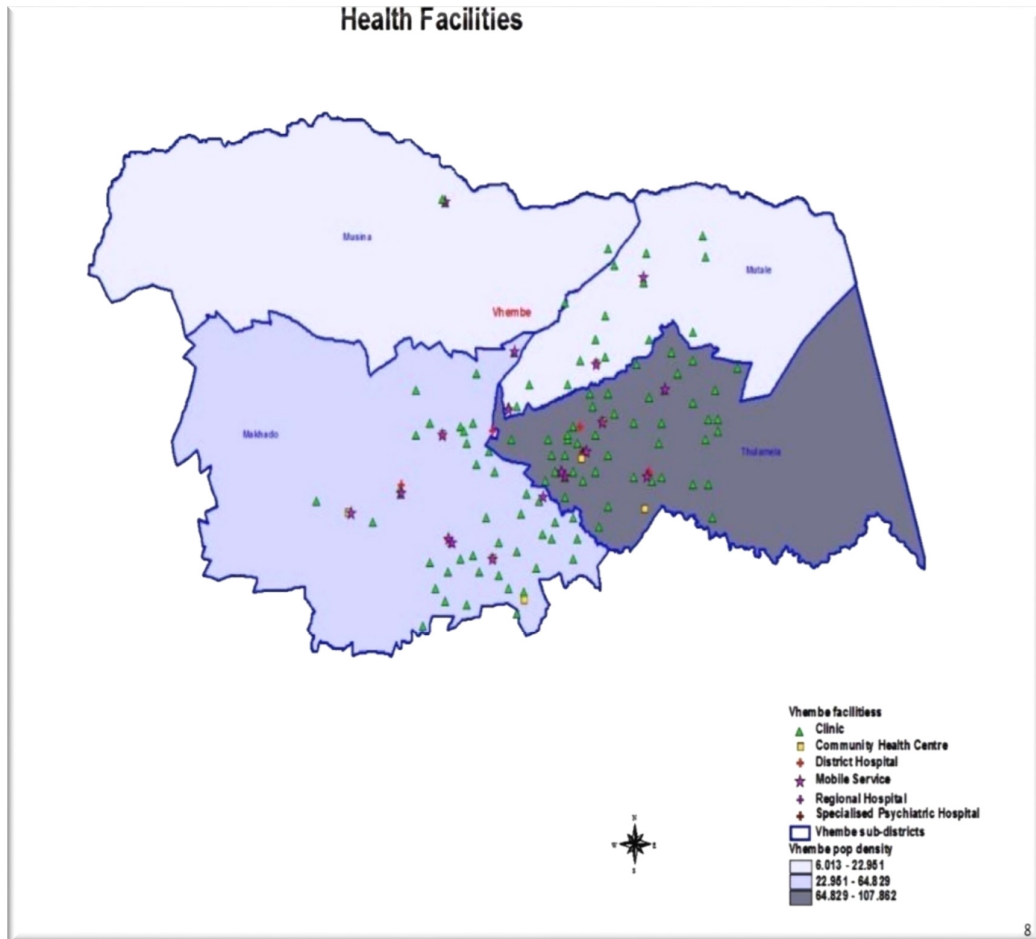


Figure 3.1: Vhembe District health facilities where PHCNs provide cervical cancer screening

The former Bantustan capital, Thohoyandou, is the current capital of the Vhembe District. Most people in Vhembe District are black Africans, they constitute 69%, coloured 27% and Indian or Asians 1%, Whites 1.1% (DoH, 2009:8). People who speak Tshivenda constitute 69%, Tsonga 27%, Sesotho 1%, Sepedi 2%, Afrikaans 1% and other languages 1% (DoH, 2009:8). Though most

of Vhembe District residents speak Tshivenda, the majority of facilities offering cervical cancer screening services are advertised by posters written mostly in English, Afrikaans Sesotho, Zulu or Xosa. Though the ABET centers increased from 116-131 and the district won a price for being best in offering ABET (DoH, 2009:948), the illiteracy rate in Vhembe District is 31% for females and 19% for males (DoH, 2009:948). Thulamela Municipality has the largest population compared to the other Vhembe District municipalities. The population density is 70.1/km square. This density is low and makes it extremely difficult and costly to improve levels of service delivery (DoH, 2009:948). Table 3.1 below indicates the four municipalities, each with its local areas, clinics, community health centers and mobile clinics and the demographic data.

Table 3.1: Demographics of the four municipalities in Vhembe District

Municipality	Local areas	Clinics	Community health centres	Mobile clinics	Area (km ²) in 2009	Population	Poverty Rate
Thulamela	7	49	3	15	2,898.69	599,021	68.81%
Makhado	7	44	4	16	8,299.70	468,830	64.29%
Mutale	3	16	1	6	2,345.92	107,532	66.08%
Musina	1	3	0	2	7,576.84	56,835	24.21%
Totals	18	112	8	39			

Makhado and Thulamela appear to have well-distributed PHC facilities, whilst Mutale seems to be in need of additional facilities, based on its population. According the Provincial District Health Plan (2012:7), Musina has a low population, but it experiences an influx of foreign nationals which require additional services to be more than the ones currently available. All these clinics in Vhembe District render cervical cancer screening services (DoH, 2009:5). The gender group population shows that women are many, suggesting a need for more female-related health services, including cervical cancer screening. The population of age group 10-19 years is significantly higher compared to the other age groups, emphasizing the need for youth health services. It has an uninsured population of 93.6% who are thus dependant on the public health sector for care.

The age group between 20-50 years is large and it is the target group for cervical cancer. This increases the risk of cervical cancer since this is the group which is sexually active and at child bearing stage. The incidence is greatest between the ages 35-39 years with 87% of cases occurring in women over 35 years (DoH, 2009:5). The social determinants indicate that Vhembe District is predominantly rural and most households are female-headed. There is an infrastructural backlog for electricity, water and sanitation and this has a negative impact on the health of the communities. There are poor roads which affect ambulances, mobile clinics and transportation as a whole. The percentage of unemployment is 18.6% (DoH, 2009:948).

3.3 Phase I: Explore and Describe Cervical Cancer Screening Services

3.3.1 Mixed Method Research Design

The research design is the familiar backbone of the research study because it provides the structure for the study approach and design decisions to be taken when planning the study (Botma et al., 2010:108). The research design is an overall plan for collecting data and attaining answers to research questions (Brink et al., 2012:217). The research design maximizes control over factors that could interfere with the validity of the findings. A mixed method is research approach that is used for collecting, analyzing and interpreting data using both quantitative and quantitative approaches and merging the findings. The researchers in mixed method blend all aspects of both qualitative and quantitative approaches into one study (de Vos et al., 2011:434).

In this study, a mixed method design, also called multi-methodology or triangulation was used (Creswell & Plano Clark, 2011:77; de Vos et al., 2011:436). Mixed method was chosen because it is a research method where the researcher use quantitative and qualitative viewpoints, data collection, analysis of data and inference techniques in order to understand the depth of the findings and the corroboration thereof (Creswell & Plano Clark, 2011:4). It was also selected because it involved integration of quantitative and qualitative approaches to develop new knowledge, but kept the qualitative and quantitative approaches separate in order to maintain the strength and integrity of each paradigm, for example, a qualitative design was used for the first

objective, with PHCNs, and a quantitative for the second objective with women (Krueger & Casey, 2009:3). The method is well-suited to bring to light the multiple influences on women's health behaviour, an understudied area (Krueger & Casey, 2009:3). Mixed method was used because there is more than one population to consider in this study, the population of PHCNs and the women. In this research a mixed method was used in order to:

- ∞ Enable the researcher to capture the essence of the phenomenon, that is, utilization of cervical cancer screening services.
- ∞ Have variation in data collection leading to greater validity.
- ∞ Have answers for the question of this study from a number of perspectives—what are the strategies that are used to promote the utilization of cervical cancer screening services by PHCNs at Vhembe District in Limpopo Province?
- ∞ Ensure that there are no gaps to the information/data collected in this study (Creswell & Plano Clark, 2011:5; Grove et al., 2013:2012).

The mixed method design is used to separate quantitative and qualitative methods as a mechanism to compensate for the weaknesses intrinsic in one method with the strength of the other method, likely to happen in this study (Grove et al., 2013:2011; Creswell & Plano Clark, 2011:2). Mixed methods approach was used for the purpose of triangulation, because this strategy integrates the results of the two methods, qualitative and quantitative approaches during the interpretation phase in confirm, cross validate and corroborate findings within a single study in order to provide a more comprehensive picture of the findings (Grove et al., 2013:2011). A qualitative explorative, descriptive design which is contextual in nature was used to meet the first objectives, which is to describe how the PHCN provided the cervical cancer screening services. A quantitative research was used for the second objective, which is, to assess detailed information about the awareness of the utilization of cervical cancer screening services by women in Vhembe District of Limpopo

Province, SA. In this study, the finding from both qualitative and quantitative research will be compared.

There are different types of mixed method available, therefore, the convergent parallel mixed design was the one used in this study. When using the convergent parallel mixed design the researcher collects and analyse qualitative and quantitative in the same phase and merge the findings. (Creswell & Plano Clark, 2014). Convergent parallel mixed design was used in this study because the design work with multiple world views and make the researcher more alert to possibilities than to issues. It combines the reasoning by both the inductive and deductive enabling the researcher to to develop a life skill program and instrument to measure its effectiveness based on information from the qualitative study designed implemented and reported the phenomena (Creswell & Plano Clark, 2011:77). It gave strength that offset the qualitative and quantitative design weaknesses thereby giving a better inference. Qualitative component on the other hand allowed tranngulation (Creswell & Plano Clark, 2011:77; de Vos et al., 2011:436).

3.3.2 Qualitative Approach

A qualitative approach is described as a way of gaining insights through discovering meanings (Grove et al., 2013:57). According to Terreblanche, Terre Blanche, Durreim & Painter (2011:222), a qualitative approach is the investigation of a phenomenon, in an in-depth style, through collection of rich, narrated material using a flexible design. A qualitative design was choosen, as it was appropriate in this study for the researcher knew very little about the provision of cervical cancer screening services in Vhembe District. In this study, the researcher was the main device in data collection. The first objective which is to explore and describe the provision of cervical cancer screening services by PHCNs among women at Vhembe District was achieved through a qualitative research approach. In qualitative research, the researcher collected detailed information from the participants at the clinic, that is, PHCNs, about the provision of cervical cancer screening services by PHCNs. Qualitative research is more open-ended and focuses on the participant's perspectives; objectives and questions may not be specified in order to get rid of narrowing the

topic (Grove et al., 2013:266). Though the researcher had few preconceived ideas the researcher stressed the importance of PHCNs' interpretation of the provision of cervical cancer screening services. Generally, the researcher tried to understand the phenomenon in its entirety, rather than focusing on specific concepts (Polit & Beck, 2012:123; Brink et al., 2012:55).

Once the research was completed, the findings were used to support the existing body of theory and research (de Vos et al., 2011:288). The qualitative research design, which is explorative, descriptive and contextual, was used in order to explore and describe the provision of cervical cancer screening services by PHCNs in order to develop the intervention strategy to promote utilization of cervical cancer screening services. In qualitative research, researchers interpreted the collected data. This included the developing a description of individuals (PHCNs) and the setting, analyzing data for main themes, themes and sub-themes and, finally, interpreting its meaning personally and theoretically, indicating the lessons learned, and subsequent questions to be asked (Creswell & Plano Clark, 2011:4).

3.3.2.1 Explorative Design

An explorative design is aimed at exploring the dimensions of the phenomenon, the manner in which it shows and the other factors that relate to it (Polit & Beck, 2012:758). The explorative study also assists to expose a relatively unknown research section to gain insight on the provision of cervical cancer screening services. According to de Vos et al. (2011:95), the explorative design enables the researcher to collect in-depth information. In explorative research, PHCNs were narrators of their experiences. The researcher will explore the depth, breadth, richness and complexity inherent in the phenomenon of interest, that is, the provision of cervical cancer screening services in Vhembe District of Limpopo Province. Narrative synthesis is the only study design that can be used in qualitative research (Polit & Beck, 2012:209).

In an explorative design, the research also aims to gain insight to generate new ideas, concepts and theories regarding the problems under examination which, within the context of this research, is

the provision of cervical cancer screening services. Currently, very little information is available about challenges, like shortage of resources, experienced by PHCNs when providing cervical cancer screening services, various screening services used and frequency of cervical cancer. In this study, detailed information was gathered through in-depth interviews—participants (PHCNs) communicated their experiences related to the provision and utilization of cervical cancer screening services. They narrated their experience in depth and breadth, giving the wealth of their experiences on their own.

3.3.2.2 Descriptive Design

A descriptive design refers to the overall strategy that integrates the different components of the study in a coherent and logical way, ensuring that the research problem will be addressed in full (de Vos et al., 2011:95). Concepts are described and discussed through a descriptive design and their relationships are noted to give the grounds for further research studies. A descriptive design can clarify myths that women have regarding the promotion of the provision of cervical cancer screening services (Polit & Beck, 2012:752; Grove et al., 2013:215). This will enable the researcher to conduct an intensive examination of the phenomenon, that is, the provision of cervical cancer screening services. This will result in a thicker description, identification of problems and justification of current practices, make judgments and determine what others are doing in similar situations (Grove et al., 2013:215).

It will give a picture of the specific details of a circumstance, giving answers to how utilization of cervical cancer screening services can be promoted and why utilization of cervical cancer screening services is in that state (de Vos et al., 2011:215). It is of importance for the researcher to correctly define the phenomenon under study. Descriptive research studies do have as their main objectives the correct interpretation of the characteristics of a person, circumstances or groups and/or the frequency with which a certain phenomenon occurs (Polit & Beck, 2012:752). Descriptive research aims at exploring and describing a phenomenon in the real life environment, discovering a new sense and defining frequencies with which events occur (Brink et al., 2012:99;

Grove et al., 2013:215). In this study, the researcher observed and listened to participants to ensure clear, accurate and precise descriptions related to the cervical cancer screening service provision and utilization. Description involved the collection of qualitative data through semi-structured individual interviews with a PHCN. The PHCNs' understanding, views and perceptions regarding challenges and support related to provision of cervical cancer screening services were analyzed and led to the development and description of the main theme, themes and sub-themes from interview transcripts.

3.2.2.3 Contextual Design

In a contextual design, the researcher is in need of making sense of feelings, experiences, social situations or phenomena, as they happen in the world of reality, that is, data need to be collected in the real setting of experience (de Vos et al., 2011:96). PHCNs as participants in this research were interviewed within their environmental setting, that is, at the clinic where they render cervical cancer screening services. They expressed their feelings, experiences and the reality of what is happening in the provision and utilization of cervical cancer screening services.

3.2.2.4 Study Population

A population is the set of individuals who have some common characteristics (de Vos et al., 2011:225; Polit & Beck, 2012:761). A target population is the specific pool of cases that the researcher wants to study (de Vos et al., 2011:225; Polit & Beck, 2012:761). According to Grove et al. (2013:365), the target population is the entire set of elements who meet the sample criteria (Grove et al., 2013:351). Accessible population refers to those cases that conform to the eligibility criteria and are accessible to the researcher as a pool of subjects (de Vos et al., 2011:225; Polit & Beck, 2012:761). In this study, the population comprised PHCNs who were providing health care services in Vhembe District clinics of Limpopo Province. The target population was the PHCNs who were rendering are providing cervical cancer screening services at the clinic. The accessible population are PHCNs who have done a Pap smear course who were providing cervical cancer screening services at the clinic.

3.2.2.5 Sampling

Sampling is a way of selecting a group of people, events, behaviours or other elements with which to conduct a research study (Grove et al., 2013:351; Lobiondo-Wood & Haber, 2011:228). According to de Vos et al. (2011:231), sampling is the way in which people are selected or determined by their relevance to the topic researched rather than their representativeness. A sampling plan include a probability and a non-probability sampling. A non-probability sample is where not every element of the population has a chance to be included in the sample (Grove et al., 2013:362). Purposive sampling is where the researcher will consciously select certain participants, elements, events or incidents to include in the research (Grove et al., 2013:365). The researcher selects participants who are critical and rich with information (Grove et al., 2013:365). In this study, purposive sampling was chosen because the researcher consciously selected subjects who had high quality of the selected information which was researched. Sampling of clinics, PHCNs and women was done.

3.2.2.5.1 Sample Size

The sample size in qualitative research must be determined by data saturation (Botma et al., 2010:137; Brink et al., 2012:133; de Vos et al., 2011:223). In this study, PHCNs per selected clinic who met the criteria were interviewed. Sample size in this research was not determined by data saturation because though data saturation was reached while interviews were conducted in Thulamela municipality, data collection continued in the other three municipalities. This was done in order to include all the municipalities of Vhembe District. A total of 15 PHCNs were interviewed. Musina had 1, Makhado 3, Mutale 5 and Thulamela 6 PHCNs.

3.2.2.5.2 Sampling Criteria

The criteria for inclusion and exclusion in the study was used (Polit & Beck, 2012:351). The criteria for inclusion in the study were PHCNs who have undergone a one-week Pap smear testing course; available for consultation on the day of data collection; have more than one year experience

providing cervical cancer screening services and have consented to participate in the study. Exclusion criteria were all PHCNs who have provided cervical cancer screening services for less than a year because they lacked experience; PHCNs who did not undergo a one-week course in pap smears testing course because they are not fully skilled as prescribed and those who did not consent to participate in the study because participation is to be done freely without being forced to do so.

3.2.2.5.3 Sampling of Clinics

In this study, non-probability purposive sampling was used to select the clinics. In non-probability sampling, not every element in the population which has the privilege to be selected in the sample. All 4 Vhembe District municipality clinics, that is, Thulamela, Makhado, Musina and Mutale, were included. Since cervical cancer screening services are provided in all clinics at Vhembe, the researcher chose 13% of the total number of clinics in Vhembe District, that is, 112 clinics as indicated in Table 3.1. Therefore the total number of clinics selected were 15. In order to select the number of clinics per municipality the researcher used the percentages as guided by Grove et al. (2013:353). Thulamela and Mutale municipality each had 12% of the total number of clinics as indicated in Table 3.1. Thulamela municipality had a total of 6 clinics from a total of 49 clinics, Mutale had 5 clinics from the total of 44 clinics, Makhado had 3 clinics from a total of 16 and Musina 1 clinic from a total of 3 clinics. This was done to ensure that all clinics from all municipalities are selected; hence, setting sample representativeness was achieved (Grove et al., 2013:353). The researcher came up with the total sample number of 15 clinics as outlined in Table 3.1. The researcher then used cervical cancer screening statistics from each municipality to select the number of clinics per municipality. The researcher started by selecting one clinic with a low uptake of cervical cancer from each municipality and then followed by selection of a clinic with the highest statistics of cervical cancer screening. Thereafter the clinics were selected starting from the clinic with the lowest statistics of cervical cancer screening until the total number of clinics per municipality have been reached. Table 3.2 indicates the statistics of the selected clinics according to (Limpopo Province DoH, 2011:5).

Table 3.2: Statistics on cervical cancer screening in selected clinics of Vhembe District

Municipality	Clinic	2011										2012			Grand total
		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar		
Thulamela <i>6 clinics</i>	Phiphidi	16	10	4	20	47	15	18	5	12	7	14	8	176	
	Sterkstroom	2	3	6	14	6	5	15	3	7	9	14	11	93	
	Muledane	5	4	1	3	2	14	8	10	13	9	12	11	82	
	Tshaulu	1	7	1	6	2	5	3	4	9	8	7	1	59	
	Fondwe	2	7	6	4	6	4	3	2	7	9	4	1	55	
	Mhinga	2	11	9	2	6	1	6	2	1	6	4	4	54	
Makhado <i>3 clinics</i>	Vleifontein	13	1	9	8	6	4	8	7	12	7	6	12	92	
	Muwaweni	1	3	4	9	4	11	11	9	5	7	13	10	81	
	Muledane	5	4	1	3	2	14	8	10	13	9	12	11	82	
Mutale <i>5 clinics</i>	Masisi	4	7	2	2	21	15	5	10	16	6	20	8	116	
	Matavhela	2	4	10	3	11	10	19	12	10	9	8	9	107	
	Tshipise	4	5	2	10	12	3	9	10	4	18	4	7	88	
	Madimbo	10	5	4	10	13	19	0	9	9	8	4	6	97	
	Khakhu	1	5	3	13	4	2	10	1	11	5	3	4	62	
Musina – 1 clinic	Musina	11	12	2	13	14	10	13	10	15	8	11	8	127	

3.2.2.5.4 Sampling of PHCNs

In this qualitative study, non-probability purposive sampling method was used in selecting 15 PHCNs involved in the provision of cervical cancer screening services. In non-probability sampling, the researcher did not know the members of the population (de Vos, 2005:201). This sampling approach was purposive since each element has an even chance to be selected (Polit & Beck, 2012:340). Purposive sampling was used because it was accessible, inexpensive and required less time because the researcher used the same selected clinics for both qualitative and quantitative data collection (Grove et al., 2013:353; Polit & Beck, 2012:763). In this study, the researcher used the PHCNs from the 15 clinics sampled so that the information can be collected from the same area. The researcher collected and analyzed qualitative and quantitative data in the same phase, compared and merged findings because convergent parallel mixed method design was used. When the interviewer arrived at a sampled clinic, any one PHCN who was found on duty, who met the sampling criteria and was willing to be interviewed was selected and interviewed. In cases where the PHCN was too busy to leave what she was doing, a new appointment was made.

3.2.2.6 Data Collection

According to de Vos et al. (2011:206), data collection is a procedure used by researchers when collecting information from the participants. It is used to determine each participant's opinions or facts, how each participant will react to the initial and potential findings. Such a technique is useful in obtaining information related to tasks, values, preferences, attitudes, beliefs, and experiences are different (de Vos et al., 2011:206). In qualitative research, the process of data collection is complex, data is collected simultaneously with data analysis (Grove et al., 2013:268). According to de Vos et al. (2011:347), a one-to-one interview is a method used to obtain more information from participants. A semi-structured interview is conducted with the interviewer using prepared overall questions called an interview guide (de Vos et al., 2011:353). The interview guide (Annexure F) is composed of open-ended questions (de Vos et al., 2011:353). During data collection the researcher is not limited on a single type of data. The researcher is completely

involved as a person holistically with his/her mind, body and soul, interacting with the participants, reflecting on what is said and happening, perceiving the findings, attaching meaning to the findings and also recording all the happenings (Grove et al., 2013:269).

3.2.2.6.1 Preparation for Data Collection

Data was collected using a semi-structured, in-depth face-to-face interviews that were non-restrictive and allowed participants to be free when narrating their experiences related to provision of cervical cancer screening at the clinic (de Vos et al., 2011:350). In-depth individual interviews were conducted to gather a broad range of different information from PHCNs on the provision of cervical cancer screening services. In this study, the researcher prepared an interview guide to be used and which had open-ended questions written in English and Tshivenda. The researcher explained what data collection is all about and how it is done in this research. The interview guide was discussed. A role play on data collection using a guide was also done.

On the first day of data collection, the researcher first collected the data for the field workers to have a view in the real situation. The PHCN was involved in the preparation for the interview as she was given the opportunity to choose a date, time and place that suited her best for the interview. This was done to establish a good rapport and interaction with the PHCN and to make the environment non-threatening. On the agreed date, the researcher arrived early, prepared the room and the tape recorder, the PHCN was given the chance to sit where she would feel comfortable and not threatened. The common spaces used were either the clinic room that was not in use at the time of the interview or in the nurses' home sitting room. Both spaces were quiet and there were no interruptions experienced during the interview process. The following three questions included in the interview guide were asked and deliberated on as long as the participant will narrate: How do you provide cervical cancer screening services in this clinic; are women aware of cervical cancer screening services; and what are the strategies that you use to encourage woman to utilize the cervical cancer screening services in this clinic?

3.2.2.6.2 Data Collection Procedure

The researcher prepared the interview setting according to the method described by de Vos et al., (2011:350). The researcher developed some pleasant rapport between the researcher and participant by greeting her and first talking about other matters outside the research matters before explaining to the participant about the interview. The researcher together with trained field workers who visited the selected clinics, introduced themselves and indicated what will be happening during the interview, including the use of a tape recorder. The interview was conducted using the language preferred by the participant, either in English or Tshivenda. The interview was conducted in a non-judgemental manner. The researcher used her listening and observation skills throughout the research study by trying to maintain eye contact throughout the research and asking for clarity where necessary.

The researcher created a non-threatening, comfortable environment which is free from interruptions throughout the research study. This encouraged freedom of speech. The researcher allowed the participant time to talk until she finished what she was saying, and kept on encouraging the participant to talk. The setting supported involvement and interaction prepared in a manner that all seats were equal. None of the seats showed that the person who will sit there will be superior to others. PHCNs who were interviewed were given a consent form (Annexures E1 and E2) to read, ask questions where they needed clarity and then sign. The PHCN took control of the interview agenda and there were no restrictions on how they related their experiences. The duration for the interview was 45 minutes. The following methods were used to encourage the participants to talk during the interview.

I. Exploring/Probing

According to de Vos et al. (2011:345), a probe is a neutral request to clarify an ambiguous and incomplete question, finish an unfinished question or complete incomplete answers. In this study, different probing questions were asked, emanating from the participant's answers, to allow the participant to give clearer information (Annexure F).

II. Minimal Verbal Responding

According to de Vos et al. (2011:345), this is a verbal response that correlates with occasional nodding which confirms to the participant that the researcher is still listening. In this study, the researcher nodded the head, saying “I am listening”, “mm”, “yes”, “continue,” in response to what the participant was saying. This allowed for a free flow of information and encouraged participants to say more (Annexure G).

III. Clarifying

According to de Vos et al. (2011:345) clarifying is used to get clarity on unclear statements. In this study, the researcher asked the follow-up questions, repeated the participant’s statement and redesigned the questioning throughout the interview so that the participants could clarify facts and consolidate some of the information or restructure some of the questions (Annexure G).

IV. Reflecting

Reflecting, according to de Vos et al. (2011:345), happens when the researcher reflects back to something that the participant has already said so that the participant can give more information on that point. In this study, the researcher took participants back to the answers already given so that they could expand more (Annexure G).

V. Focussing

The researcher kept the interview on track (de Vos et al., 2011:345). In this study, full attention was given throughout in order to help the participants focus on their experiences related to cervical cancer screening (Annexure G).

VI. Paraphrasing

According to de Vos et al. (2011:345), paraphrasing is a verbal response where the researcher tries to rephrase what the participant has said in a different way but meaning the same thing in order to seek more information. In this study, the researcher stated the participant’s words in another form

but with the same meaning. This made participants try to give more information needed from the question (Annexure F).

VII. Validation

The researcher observed the participants and interpreted their non-verbal communication such as vocalization, facial expression and bodily gestures and transcribed them for analysis. The researcher asked for clarity in the observations made (de Vos et al., 2011:345). In this research all non-verbal communications collected during interviews were transcribed and analyzed (Annexure F).

VIII. Encouragement

According to de Vos et al. (2011:345), participants have to be encouraged to pursue a line of thought. In this study, the participants were encouraged to tell more about the aspects related to cervical cancer screening services (Annexure F).

IX. Using Silence

Silence allows the participant to do the talking while the researcher is listening and observing (de Vos et al., 2011:345). In this study, the researcher had some pause or kept quiet and observed what was happening (Annexure F). This allowed the participant to think and continue narrating at her own pace without hurrying them.

X. Field Notes

Field notes are notes that are written by the researcher to describe unstructured observations that were made on the participant during interviews (Polit & Beck, 2012:762; Botma et al., 2010:137). It is a system used to remember, retrieve and analyze the observations as they trigger the researcher on what occurred during data collection through interviews. During data collection, data were examined for similarities and differences and field notes were written. In qualitative research, sensory data gained from listening or observations done during data collection was used. Field

notes described the person in the observed setting such as the manner of speaking, physical appearance, style of interacting and anything that can be used to provide insights into the study participants (de Vos et al., 2011:359).

According to de Vos et al. (2011:359), field notes included comprehensive accounts by the participants themselves, the events taking place, discussions and communication, and the researcher's attitude, perceptions and feelings. This includes anything that the researcher hears, experiences and thinks or feels about in the process of the interview. The four categories of field notes according to de Vos et al. (2011:359) were used. Observation notes were taken by observing and listening to what was happening during the interaction with the participant. Theoretical notes were derived from interpretations of non-verbal communication. They were formed by attaching meaning from the observation notes.

Methodological notes are instructions and reminders. Personal notes are notes which emanated from ideas, reactions, feelings and experiences of the researcher. The researcher needed to make sense of the situation in which the phenomenon occurred by understanding the utilization of cervical cancer screening services. Field notes helped to remember and explore the interview process in all the spheres. In this study, field notes were written to describe the PHCN in the observed setting such as the manner of speaking, physical appearance, style of interacting and anything that can be used to provide better insight into the study. The field notes were revisited and interpreted when data was transcribed verbatim and during data analysis.

3.2.2.7 Data Analysis

Data analysis is a process involving organizing and interpreting collected data (Polit & Beck, 2012:557). Analysis means categorizing, ordering, manipulating and summarizing data in order to get answers to research questions. It reduces data to an intelligible and interpretable form so that the relationships of the research problem can be studied, tested and conclusions drawn (de Vos et al., 2011:248). According to Grove et al. (2013:279), data analysis is a process of examining and

interpreting collected data to elicit meaning, gain understanding and develop empirical knowledge. In this study, data was analyzed using Tesch's 8 steps of open-coding as described by Creswell (2009:204). After analysis the researcher was able to develop the main theme, theme and sub-themes. Coding is a way of naming or labelling using a code, which is a symbol or abbreviation (Grove et al., 2013:281). The researcher applied the 8 steps as indicated below. The researcher:

- ⌘ Read through the transcriptions that were made from the collected data and wrote down ideas, to get a sense of the whole interview;
- ⌘ Started with the most interesting, shortest and the one on top, thought about the underlying meaning of the information while writing thoughts in the margin; thoughts such as provision of screening services, awareness of cervical cancer and strategy for promoting utilization screening services were written;
- ⌘ Made a list of all the topics, similar topics were clustered together and similar topics were used to form columns that will be arranged as major and unique topics; main topics/main themes, topics/themes, sub-topics/sub-themes, unique topics and uncategorized ones were displayed accordingly;
- ⌘ Took the list back to the data, abbreviated the topics as codes, writing the codes next to the appropriate segments of the text, which helped the researcher to see whether new categories and codes emerged. This continued through data analysis in order to refine data;
- ⌘ Identified the most descriptive wording for the topics and turned them into categories. The total list of categories was reduced by making groups of topics that relate to one another. The interrelationships were indicated by drawing lines between the categories;
- ⌘ Made abbreviations for each category from formulated topics and arranged the codes alphabetically. Reviewed each category to check if new codes or categories emerged;

- ∞ Made a preliminary analysis by assembling the data material belonging to each category in one place. This allowed the data that was not categorized to be further looked at from different angles and be categorized too. One main theme, five themes and sub-themes were generated from the data pool for analysis and discussion; and lastly,

- ∞ Recorded the existing data as main theme, theme and sub-theme which were identified by both the researcher and the independent coder. They were also compared by one external reviewer who was not part of the initial analysis, comparing the similarities and differences. All differences were discussed with the researchers, supervisors and an independent coder until consensus was reached. A table of one main theme, five themes and sub-themes was then drawn.

3.2.2.8 Measures to Ensure Trustworthiness

Trustworthiness is the ability of the qualitative study to represent the experience of the participants (Polit & Beck, 2012:196). It is described as a measure to ensure reliability of data collection procedures and instruments to avoid bias in the interpretation of the findings. The researcher applied strategies to ensure truth value, applicability, consistency and neutrality, to confirm whether the study represented provision of cervical cancer screening services and awareness of the utilization of cervical cancer screening services at Vhembe District in Limpopo Province.

3.2.2.8.1 Credibility

Credibility is the truth of the data collected and the way data was interpreted (Polit & Beck, 2012:751). Credibility means to value, the belief and the degree to which the finding and methods of research applied to get research findings can be trusted. The researcher had enough time for data collection. The researcher engaged in prolonged interaction with the participants in each clinic; hence, they developed trust in the researcher, felt free to talk and the researcher was able to make persistent observations on the participants and the whole environment. In this study, structural coherence was ensured by means of peer group reviews, discussions, presentations,

member checking so that no unexplained inconsistencies between the data collected and its interpretations could be noted, and field notes were taken to rationalize the relationship between the researcher and the setting (Polit & Beck, 2012:751). During interviews, data collection was audiotaped and transcribed verbatim. The recorded information was listened to while writing down everything as said by the participant. The interview where Tshivenda was used was again translated to English in order to ease analysis. Literature control was done. There was co-coding of the data by an independent coder. These activities were done to ensure triangulation (Polit & Beck, 2012:751).

3.2.2.8.2 Transferability

The findings of research should be applied in other contexts or with other respondents. The researcher will collect sufficient detailed descriptions of data in context. The sample should be clearly described in terms of demographics so that the participants are clearly distinguished from the others in general (Polit & Beck, 2012:539). According to Polit & Beck (2012:511), triangulation is a data source that involves multiple research methodologies to collect or interpret data about a phenomenon.

3.2.2.8.3 Dependability

According to de Vos et al. (2011:346), dependability means that if an inquiry into the same phenomenon is repeated, the results will be replicated. This is supported by Polit & Beck (2012:196) who indicated that dependability is data stability over time and over conditions that is evidence which is consistent and stable. It also means that the research will constantly provide the same results if repeated under the same conditions, that is, the same participants and the same context because it is reliable and valid. The report on the findings will allow judgment about transferability. Triangulation of observers means that multiple researchers are used in the research study (Polit & Beck, 2012:196). In this study, a dense description of the research method was done to ensure dependability. Triangulation was applied by conducting semi-structured interviews where the researcher did the observations and taking field notes during data collection.

3.2.2.8.4 Confirmability

If there is congruence between two or more independent people about collected data relevance, meaning and accuracy, it means that there is confirmability, objectivity or reliability of the data collected (Polit & Beck, 2012:196). This research was supervised by highly qualified supervisors. In a qualitative study, the researcher follows the research design method as outlined and this leads to collection of data that was supported with findings from quantitative research. In this study, the researcher was able to develop the themes using the findings in Chapter 4, that is, provision of cervical cancer screening services, awareness of women on the utilization of cervical cancer screening services and intervention strategies to promote utilization of cervical cancer screening services. The quantitative research will be outlined below since a mixed method research approach was used in this study.

3.3.3 Quantitative Approach

A quantitative approach was used in order to achieve the second objective of assessing the awareness of women on the utilization of cervical cancer screening services. Quantitative research is an inquiry into a problem based on testing a theory composed of variables—findings are measured in numbers and analyzed using statistics (de Vos et al., 2011:171). It is a systematic collection of numerical information where statistical procedures are being used (Grove, 2013:19).

A quantitative approach was used to strengthen the data that was collected through interviews of PHCN in qualitative research. It was created by choosing observable indicators which, in this study, occurred through a questionnaire that was developed to observe the participant's responses (Grove et al., 2013:19). In this study, an enquiry was made on the awareness of the utilization of cervical cancer by women at Vhembe District in Limpopo Province.

In qualitative research, the design method was discussed, that is, the population, sample, data collection method and analysis so this portion will indicate how they were done in the quantitative research section.

3.3.3.1 Study Population

In the quantitative research section, the population used was all the women in Vhembe District of Limpopo Province. The target population was all women who use Vhembe District clinics for health services. The accessible population was all women between 20-59 years of age who were coming to the selected Vhembe District clinics for health services on the day of data collection.

3.3.3.2 Sampling

3.3.3.2.1 Sampling of Clinics

Sampling of the clinics was done as in the qualitative study (Table 3.1).

3.3.3.2.2 Sampling of Women

Purposive sampling was used. The researcher used her judgment to select women who have the most characteristics under study. The sample was formed by women who get their cervical cancer screening services from the 15 selected clinics. The researcher first added monthly estimated statistics of women who visited the selected clinic for various health problems for the past four months.

Then calculated 10% from that total number of women who consulted at the clinic for the previous four months before data collection. A total number of 500 women were sampled. Thulamela had an estimate of $1650 \times 10\% = 165$ women, Makhado $1210 \times 10\% = 121$ women, Mutale $1190 \times 10\% = 119$ women and Musina $950 \times 10\% = 95$ women.

Each clinic had a number of questionnaires to be collected. Issuing of questionnaires was stopped when the required number has been reached from each selected clinic. Women ($n=500$) from the ages of 20-59 years were given questionnaires as they arrived at that selected clinic for consultation until when the required number of women has been reached. Only women who have given consent to participate in the research were given questionnaires (Polit & Beck, 2008:351).

3.3.3.2.3 Sampling Criteria

Inclusion criteria in the study were women who between 20-59 years of age because cervical cancer commonly affects women of this age group (Lewis et al., 2007:1403); had received cervical cancer screening services; available for consultation on the day of data collection; and have consented to participate in the study. Exclusion criteria will be all women below 20 years and those above 59 years because they are not commonly affected by cervical cancer at these ages (Lewis et al., 2007:1403).

3.3.3.3 Data Collection

3.3.3.3.1 Pilot Study

A pilot study is a mini research study conducted to test the measuring instrument, assess the feasibility of the study and to test the skill of the field workers, assess the logistic and other problems likely to affect data collection, determine whether the intervention will be feasible, guide the refinement of the intervention, instructions, manuals or training programmes (Grove et al., 2013:343). A pilot study is used to estimate the duration of the research, verify problems related to access to participants and to ascertain whether there are any unanticipated effects that may be of concern for participants (Grove et al., 2013:343). In this research, a pilot study was conducted at a clinic which was not one of the sampled clinics. Twenty questionnaires were written in both English and translated into Tshivenda for easy comprehension for those who cannot read English.

They were first given to the statisticians who commented that all the questions should be answered in such a way that the results can be put in a numerical form and percentages. The participants were required to respond by making a cross in the appropriate field on the questionnaire. The answered questionnaires were read, interpreted and coded in order to determine any potential problems. Findings were then correlated to ascertain whether it is measuring what it is supposed to measure. Changes emanating from the pilot study were done on the questionnaire, for example, adding questions 4.2.27 and 4.2.8 and rephrasing some of questions (Annexure H).

3.3.3.3.2 Data Collection Method

In quantitative research, the data collection method employed measuring instruments (de Vos et al., 2011:91). A questionnaire is a data collection instrument composed of specific questions for obtaining facts and opinions about a phenomenon from people informed on the particular issue applied in different ways (de Vos et al., 2011:186). A self-administered questionnaire is a questionnaire that is given to the participant, to complete on her/his own, in the presence of the researcher to address the problems which maybe experienced (de Vos et al., 2011:188). A questionnaire is supposed to be well-defined, neat, adequate and easy to follow with clear and precise directions and instructions (de Vos et al., 2011:170). Questions about demographic data of the participant, knowledge about cancer and cervical cancer screening services, access to cervical cancer screening services and information and attitude towards cervical cancer screening services were included in the questionnaire.

The principles for formulating the questions of a questionnaire are: information needed, creative thinking and a high level of precision by the researcher, length of a questionnaire, format of the questionnaire, pilot testing the questionnaire, ways to ensure completion of the questionnaire, data analysis and response systems (de Vos et al., 2011:190). In this study, the questionnaire, in its semi-final form, was pilot-tested before it was utilized in the main data collection (de Vos et al., 2011:171). The language best understood by the participants has be used and, in case they could not write, assistance was be given (Abdullahi et al., 2013:57).

- ❖ **In this study, the questionnaire used were those that were corrected following a pilot study (Annexure H).**

Participants were expected to respond to questions related to the demographic data, the provision of cervical cancer screening services, the awareness of women on the utilization of cervical cancer screening services and strategies used to promote utilization of cervical cancer screening services. A word or statement was used when answering the last question of suggesting the strategies that

can be used to promote utilization of cervical screening services. The research assistants gave the participants who met the criteria the questionnaire at the clinic after they consulted. The research assistants instructed participants to answer and hand over the questionnaire after completion. Participants were informed to ask for assistance when necessary. Some women needed the research assistant to take care of the babies while they were answering the questionnaire. This is supported by Abdullahi et al. (2009:682) who indicated that lack of assistance with child care is a barrier to utilization of cervical cancer screening services. The participants gave the completed questionnaires to the researchers immediately after answering it. The questionnaires were no longer given to participants after the required answered questionnaires were returned. The qualitative data were supported by quantitative research and by a literature control.

3.3.3.4 Data Analysis

Statistical analyses need the raw data to be captured in a numerical code or numbers depending on how data was collected (de Vos et al., 2011:143; Brink et al., 2012:35). Statistics were used to describe some characteristics of a sampled group or to test similarities and differences between groups (de Vos et al., 2011:143). In quantitative research, statistical or numerical data is used to extract clusters of attributes comprising a new concept and depicting those attributes that do not belong to the concept. The data was analyzed using the Statistical Package for Social Sciences (SPSS) version 22.0.

Statistical analysis involved numerical data from the computer software spreadsheet programme, MS Excel, and descriptive statistical frequencies and percentage to summaries of collection data, univariate analysis using frequency distribution and graphic presentation (de Vos et al., 2011:143). In this research, the statistician analyzed the data using the SPSS to indicate frequencies and percentages. These made it possible and easy to describe them. Similar answers from the open-ended question were grouped in order to take note of all the inputs. Data was coded and analyzed quantitatively as presented in Table 4.1, Chapter 4.

3.3.3.5 Validity and Reliability

The principles related to the instrument to be used for measuring instrument are the measurement, validity and reliability of the measuring instrument and levels of measurement (de Vos et al., 2011:142). Validity is the degree to which an instrument measures what it is intended to measure while reliability is the degree of consistency or dependability with which an instrument measures an attribute (Polit & Beck, 2012:764; de Vos et al., 2011:177). Reliability reveal true differences (Grove et al., 2013:198).

Measurement is a process whereby abstract concepts are described in terms of specific indicators, by the assignment of numbers or other symbols to those indicators in accordance with specific rules laid down. An indicator is an observation regarded as an evidence of attributes or properties of a phenomenon (de Vos et al., 2011:142). Various instruments are used such as a checklist, indexes, scales and a questionnaire (de Vos et al., 2011:181). In this study, the questionnaire was checked by the peers, supervisor and co-supervisor for internal validity, prior to data collection. The statistician and linguistcian checked the questionnaire for external validation before it was used.

A literature review was done for content validity. Comparison of different groups on pre-test measures in various circumstances was done. It yielded the same results, then the measurement method was reliable. Reliability was reached as different people who were given the same instrument measure, in the same environment, yielded consistency of the results. The field workers were trained for reliability of data collected as discussed in preparation for data collection.

3.3.3.6 Ethical Considerations

Every situation is bound to abide by the ethical norms that have been established by law or tradition which stipulates what researchers' obligations are to their human subjects, their scientific colleagues and society, in order to safeguard the interest of the public (de Vos et al., 2011:115). Ethics is a set of moral principles that are suggested by individual persons or a group of people.

They are then subsequently widely accepted. They offer rules and behavioural expectations about the most correct conduct towards experimental subjects and respondents, employers, sponsors, other researchers, assistants and students (de Vos et al., 2011:115). It is ethics that defines what is not legitimate to do, or what a moral research procedure involves. Qualitative and quantitative research ethical considerations are similar in that when conducting a research study, a set of rules of behaviour and morale are honoured (de Vos et al., 2011:115). In this study, everything that was agreed upon by the researcher such as respect for human rights and others were considered in that the rights of participants and other ethical considerations were observed throughout the study.

3.3.3.6.1 Permission to Conduct Research

In this study, a research proposal was presented to School of Health Sciences Higher Degrees Committee and Research Ethics Committee of the University of Venda (Annexure A). The University of Venda Ethics Committee issued ethical clearance certificate for this study (Annexure B). Applications requesting permission to conduct the study were submitted to the Limpopo Provincial Health Department (Annexure C1) and Vhembe District Department of Health (Annexure C2). Permission was granted to access the facilities for utilization of the selected clinics and PHCNs (Annexure D).

3.3.3.6.2 Respect for Human Rights

The principle of respect for human dignity indicates the right to self-determination where participants have the right to voluntarily decide whether or not to participate in the research study, with no risk of incurring any penalties or prejudicial treatment. Participation can be withdrawn at any stage of the process (Fotinos et al., 2010:127). In this research, participants' rights were honoured as they gave their informed consent (Annexures E1 and E2) after being fully informed about the research, that it is voluntarily, freely and confidentially.

Anonymity and privacy were maintained throughout the study. They were allowed to withdraw participation at any point of the research process without threats. The language best understood by

the participants was used, the consent form and the questionnaire (Annexure G) were written in English and Tshivenda and interviews were conducted in Tshivenda and English (Annexure H) (Fotinos et al., 2010:127). Right to fair treatment and selection, was applied in the sense that participants were treated fairly and they received what was due for them (Grove et al., 2013:173).

3.3.3.6.3 Informed Consent

According to Polit & Beck (2012:176), voluntary informed consent to participate in research is given when a participant has adequate information concerning the research study, has comprehended the information and has the power of freedom of choice or decline. Ethical clarification begins when the interview plan has been finished; participants need to give informed consent in relation to participating, interviews, privacy, sensitivity and use of information (de Vos et al., 2011:116). Grove et al. (2013:180) indicate that the participants should be informed about the topic under study, the nature of participants, and the manner in which confidentiality and privacy would be ensured and how the rights would be protected. In this research study, women aged 20-59 years and PHCNs gave their written informed consent after being informed about all aspects of data collection before they gave a consent (Annexures E1 and E2).

3.3.3.6.4 Voluntary Participation

According to Polit & Beck (2012:176), participants should quit participating any time during the research if they feel like it, without fear of victimization or penalties. No one should be forced to participate (de Vos et al., 2011:117). In this research, participants were allowed to withdraw participation at any point of the research process without threats, that is, physical, emotional, psychological social or any form of harm. Participants were informed that participation is voluntary.

3.3.3.6.5 Confidentiality

According to Polit & Beck (2012:177), the researcher must make every effort to ensure that confidentiality is a promise kept because that is what most of the ethical codes require.

Confidentiality should be maintained because data collected will be held in anonymous form (Polit & Beck, 2012:178; Grove et al., 2013:171). In this research, participant's identities, their clinic and residences were not exposed in any form or published with the results. The research report findings were not in any way linked to the participants. Numbers/codes instead of names were used to identify clinics and participants were not required to write their names on the questionnaire.

3.4 Phase II: Strategy Development

This phase addressed the third objective of developing an intervention strategy to promote utilization of cervical cancer screening services in Vhembe District, SA. This part meets the objective of developing an intervention strategy to promote utilization of cervical cancer screening services in Vhembe District, SA. In this study, the intervention strategy developed will promote utilization of cervical cancer screening services in Vhembe District, SA. The BOEM approach was used to develop the intervention strategy after SWOT was used to analyze the collected data and PESTLE in opportunities and threats was analyzed.

The internal factors, which are strengths and weaknesses were discussed focusing on human resources, financial costs, competence and product/services and the external factors, which are opportunities and threats were discussed focusing the PESTLE (Pearce, 2007:25; Bunn & Conlin, 2013:46). The SWOT matrix was developed according to SWOT (Bunn & Conlin 2013:45). The strategy for increasing the utilization of cervical screening services was developed by building on strengths, overcoming weaknesses, exploring opportunities and minimizing threats (Pearce, 2007:1).

3.5 Phase III: Validation of the Developed Intervention Strategy

Validation is done to check whether the developed intervention strategy will be feasible and applicable in Vhembe District clinics (Peggy, 2011:177). The qualitative and quantitative research study was used. The population, sampling of clinics and PHCNs was done as detailed in this chapter the same clinics were used and fifteen PHCNs were sampled from those that participated

in the main study. The validation tools (checklist) was developed (Annexure I). Questions emanating from the research findings were used in the questionnaire and the structured interview tool. Participants validated whether the strategy action plan is adequate, accurate and represents reality for it to be assumed in achieving the goal if applied in the development of the strategies to influence women to utilize cervical cancer screening services. Peggy (2011:177) prerequisites was adopted to facilitate validation, namely, questions were drawn to analyze and compare findings with the initial ones drawn in the main theme, themes and sub-themes and developed strategies using SWOT and PESTLE analysis strategies. Findings were described in order to obtain frequency and percentage distributions. Detailed information on validation is presented in Chapter 6.

3.6 Summary

This chapter dealt with the research design and methodology. It covered research methodology that described qualitative and quantitative research methods. It included a full description of the research setting, population, sampling, data collection, data analysis, measures of trustworthiness, validity and reliability, ethical considerations, strategy development methodology and validation procedure. Chapter 4 deals with the presentation and discussion of the research findings.

CHAPTER 4

MERGED/MIXED RESULTS AND DISCUSSION

4.1 Introduction

The previous chapter concentrated on the research design and methods used in this study. In both qualitative and quantitative research the purpose of the study was explained to participants and verbal or written consent was obtained from participants before data collection process was initiated. Data was collected in English and Tshivenda according to the participant's language preference. Qualitative data analysis was done using Tesch's eight steps of open-coding. This chapter will interpret and merge the research findings from qualitative and quantitative research approaches under the guidance of the Health Belief Model (HBM) theory. The HBM theory supports the notion that a change of behaviour is affected by factors such as the agent, host and environment. This means that utilization of cervical cancer screening services is affected by the agent which are PHCNs, host which are women and the environment which is the clinic where cervical cancer screening services are provided (Morris et al., 2010:2). The purpose of the study was to develop an intervention strategy to promote utilization of cervical cancer screening services at Vhembe District in Limpopo Province.

4.2 Qualitative and Quantitative Research

The first objective of the study (Phase I) was to explore and describe the provision of cervical cancer screening services by PHCNs to women in Vhembe District clinic. Qualitative research has been used to meet this objective. The second objective was to assess the awareness of women on the utilization of cervical cancer screening services in Vhembe District, SA and quantitative research was used to achieve this objective. The third objective was to develop an intervention strategy to promote utilization of cervical cancer screening services in Vhembe District, SA.

The fourth objective was to validate the intervention strategy to promote utilization of cervical cancer screening services in Vhembe District, SA. In the qualitative research component, one main theme, five themes and sub-themes have emerged during the data analysis of research findings on the provision of cervical cancer screening services by PHCNs among women at Vhembe District.

4.3 Research Approaches

4.3.1 Overview of Fieldwork Activities in the Qualitative Approach

In the qualitative research component, in-depth interviews were conducted to explore and describe the provision of cervical cancer screening services by PHCNs to women in Vhembe District clinics, SA. The interview guide (Annexure F) was formulated in order to fulfill the mentioned objective and to direct the interviews. Interviews extended for a duration of not more than 45 minutes. Though data saturation was reached in one municipality, interviews were further conducted in the remaining three municipalities in order to include all the municipalities. The field notes explained all the non-verbal cues which could not be captured by the voice recorder and assisted the researcher to remember everything that occurred during the interview sessions, e.g., participants who started to use body movements during the interview sessions. The field notes were incorporated in the transcribed data to complement the collected data in a logical manner, since it reflected critical occurrences.

4.3.2 Overview of Fieldwork Activities in the Quantitative Approach

In the quantitative research component, data were collected through questionnaires from the 18 selected clinics. These questionnaires contained closed-ended items. Questions were divided into 4 sections, namely, the demographic data, perceptions regarding the provision and utilization of cervical cancer screening services, the awareness of women on the utilization of cervical cancer screening services. Questionnaires were given to women while they visited the clinic for any reason on the day when data was collected at that particular clinic. Women were given questionnaires before or after consultation. Assistance was given to some of the participants where

necessary, at times the researcher even had to take care of the child while the mother was answering the questionnaire. This is supported by Abdullahi et al. (2009:682) who indicated that lack of assistance with child care is a barrier to utilization of cervical cancer screening services. Questionnaires were returned immediately after completion of answering all the questions. All the distributed questions were received back because those who were not interested were not given questionnaires.

4.4 Presentation of the Findings

Findings are presented from both qualitative and quantitative research components since data collection was done using these two methods.

4.4.1 Description of the Participants

In qualitative research, PHCNs who are providing cervical cancer screening services at those selected clinics, who have undergone a Pap smear training and are providing cervical cancer screening services in Vhembe District clinics formed the sample. One participant per clinic was interviewed. Of the 15 PHCNs, the majority of PHCNs were aged 30-34 years (n=6; 40%), followed by 35-40 years (n=4; 26.7%), 25-29 years (n=3; 20%) and 40-45 years (n=2; 13.3%). Most PHCNs were female (n=12; 80%). In terms of their years of experience, the distribution showed that the majority had 4-6 years experience (n=4; 26.7% for those with 4 or 6 years experience). Only two (13.3%) of PHCNs indicated that they had 8 years of experience. All the PHCNs (n=15; 100%) had completed a Pap smear laboratory test course—this, in fact was not surprising as it was one of the inclusion criteria of the study. In quantitative research, women who came to the selected clinic for consultation on the day of data collection were selected as participants. Questionnaires were given only to those women who were willing to participate and gave consent. Table 4.1 summarizes the quantitative biographic data of the 500 women study participants, indicating that they were equally distributed in the various age groups, mostly single or married, very few divorced, mostly unemployed.

Table 4.1: Qualitative biographic data on PHCNs included in the study

Variables	n=15; n(%)
Age group (years)	
25-29	3(20.0)
30-34	6(40.0)
35-40	4(26.7)
40-45	2(13.3)
Sex	
Males	3(20.0)
Female	12(80.0)
Years of experience	
8	2(13.3)
7	2(13.3)
6	4(26.7)
5	3(20.0)
4	4(26.7)
Did a Pap smear course	15(100.0)

4.4.2 Presentation of Qualitative Research Findings

These findings were used to develop the intervention strategies to promote utilization of cervical cancer screening services. Table 4.3 presents one main theme, five themes and subsequent sub-themes developed from qualitative research approach findings after analysis was done.

4.4.3 Presentation of Quantitative Research Findings

In quantitative research, information obtained was entered into the SPSS version 22.0 computer software used for analysis with a statistician's assistance. Descriptive statistics, specifically frequencies and percentages, were used to summarize data collected in the study.

Frequency was used for categorical variables, and mean and standard deviation for continuous variables. Table 4.2 presents quantitative biographic data of women who participated.

Table 4.2: Quantitative biographic data of women study participants

Variables	n=500; n(%)
Age group (years)	
20-29	117(23.4)
30-39	143(28.6)
40-49	113(22.6)
50-59	122(24.4)
Level of education	
No formal schooling	39(7.8)
Grade 1-7	59(11.8)
Grade 8-12	17(3.3)
Tertiary	56(11.2)
Source of income	
Monthly salary	144(28.8)
Pension	243(48.6)
Business	44(8.8)
No income	57(11.4)
Whether income is enough to cater for the family	
Enough	93
Not enough	387
Marital status	
Single	185(37.0)
Married	198(39.6)
Divorced	48(9.6.)
Widowed	66(13.2)
Type of employment	
Employed	30(9.3)
Non-government employment	98(30.5)
Self-employed	30(9.3)
Students	19(5.9)
Unemployed	115(24.2)
Retired	29(9.0)

Table 4.3 presents the main theme, themes and sub themes developed from findings collected during qualitative study

Table 4.3: Main theme, themes and sub-themes

	Themes	Sub-Themes
Main theme Perceptions regarding the provision and utilization of cervical cancer screening	1. Conceptualization of cervical cancer screening services provided.	1.1 Explanation of guidelines for cervical cancer screening services
		1.2 Processes of screening involvement of other multidisciplinary team members outlined
		1.3 Recording an important aspect in cervical cancer screening services
	2. Attitudes and practices of women	2.1 Positive versus negative attitude towards cervical cancer screening
		2.2 Excuses given to avoid cervical cancer screening
		2.3 Acceptance versus lack of acceptance to be assisted by male PHCNs
		2.4 Explanation of predisposing factors to cervical cancer
		2.5 Lack of support versus support by male partners towards cervical cancer screening
	3. Cervical cancer screening services provided	3.1 Constant provision of health education related to cervical cancer screening
		3.2 Provision of information through different channels
		3.3 Frequency of cervical cancer screening outlined
		3.4 Shortage of human and material resources impacts on provision of cervical cancer screening services
		3.5 Existence of various screening services
	4. Outcomes after cervical cancer screening	4.1 Results accessible to patients
		4.2 Cervical cancer screening results misinterpreted
	5. Suggestions related to promoting the utilization of cervical cancer screening services	5.1 Uncertainties on how the cervical cancer screening can reach communities
		5.2 Home visits seen as an option to reach out to communities
		5.3 Consistent provision of health education
		5.4 Provision of mobile services to communities
		5.5 Suggested duration for the repeat of cervical cancer screening

Table 4.4 reflects the research findings from data collected during quantitative.

Table 4.4: Quantitative research findings

Section 1: Perceptions regarding the provision and utilization of cervical cancer screening services

	N=500 N(%)
4.4.1 Are there cervical cancer screening services in this clinic?	
Yes	396(79.2)
No	89(17.8)
4.4.2 How far is this clinic from your home?	
Within 5 km	254(50.8)
5 km and more	229(45.8)
4.4.3 How do you reach the clinic from your home?	
Public transport	178(35.6)
Own transport.	35(7.0)
On foot	271(54.2)
4.4.4 Have you ever been done a Pap smear?	
Yes	207(41.4)
No	275(55.0)
4.4.5 If you were once done a Pap smear, was your husband involved when you went for Pap smear or follow-up?	
Yes	60(12)
No	138(27.6)
4.4.6 What was the reason for doing a Pap smear?	
Illness	149(29.8)
Cervical cancer screening	92(18.4)
Voluntary	59(11.8)
Family planning	88(17.6)
Postnatal care	108(21.6)
4.4.7 If you have never been done Pap smear is it because of one of the reasons listed below?	
Embarrassent	76(15.2)
Painful	122(24.4)
Queuing too long for being done pap smear	40(8.0)
Duration of the procedure too long	10(2.0)
Hatred	41(8.2)
No equipment	150(30)
4.4.8 If you were once done a Pap smear did you go again for the results?	
Yes	224(44.8)
No	95(19.0)
4.4.9 Do you have a problem when Pap smear is done by a male person?	
Yes	264(52.8)
No	211(42.2)
4.4.10 If you said you are employed, is it mandatory for all the staff members at your workplace to have cervical cancer screening?	
Yes	92(18.4)
No	149(29.8)
4.4.11 Do you have any of the community groups in your community?	
Cancer groups	5(1.0)

Village or block groups	283(56.6)
Stockvel groups	140(28.0)
Footbal group	54(10.8)

Section 2: Awareness of women on the utilization of cervical cancer screening services

4.4.12 What is a Pap smear test?

A scraping of the cervix to look for abnormal cancerous cells	176(35.2)
Treatment of cancer	93(18.6)
Test for a sexually transmitted infections	35(7.0)
Don't know	161(32.2)

4.4.13 How frequently should a Pap smear be done?

Every year	50(100.0)
Every 2 years	23(4.6)
Every 5 years	39(7.8)
Every 10 years	149(29.8)

4.4.14 Do you perceive that a Pap smear can detect cervical cancer earlier?

Yes	307(61.4)
No	156(31.2)

4.4.15 Have you ever heard about cervical cancer?

Yes	345(69.0)
No	130(26.0)

4.4.16 Where have you heard about cancer?

Radio	142(28.4)
Television	28(5.6)
Clinic	200(40.0)
Church	33(6.6)

4.4.17 Do you regard yourself as vulnerable to and can also have cervical cancer?

Yes	115(23.0)
No	336(67.2)

4.4.18 Do you consider cervical cancer as a problem sufficiently serious to be worthy of consideration?

Yes	249(49.8)
No	182(36.4)

4.4.19 Which of the following increases your chance of having cervical cancer?

If you have a sexual relationship with more than one man	111(22.2)
If your partner has a sexual relationship with many women	42(8.4)
If started to be sexually active at a young age	60(12.0)
Using the same bath with somebody who has cervical cancer	79(1.4)
Failure to use condoms	369(7.2)
Don't know	195(39.0)

4.4.20 Have you ever come across information related to cervical cancer written on:

Refrigerator magnets	16(3.2)
Grocery plastic bags	9(1.8)
Public areas	56(11.2)
Boards along the road	7(1.4)
Schools	37(7.4)
Sanitary pads	2(4)

4.4.20 Are you aware that there is a vaccine against cervical cancer that is given to girls at school?

Yes	345(69)
No	155(31)
4.4.22 Are you aware of other health professionals, like a doctor, social worker or dietician who are working in this clinic?	
Yes	490(98)
No	8(1.6)

Section 3: Interventions utilized to promote utilization of cervical cancer screening services

4.4.23 Indicate the strategies have you seen being used by the government to encourage women to attend cervical cancer screening services.	
Health education	258(51.6)
Cervical screening campaign	148(29.6)
Cell phone reminders	1(.2)
Nurses visit them at their homes	3(6)
4.4.24 What else can be done to encourage women to attend cervical cancer screening?	
24-hour services	1(0.8)
Advertisement	5(1.2)
Don't know	10(2)
Teach	26(5.2)
Aweraness campaign	7(1.4)
Groups	6(1.2)
Door-to-door	10(2)
School	1(0.8)
Compulsory screening	6(1.2)
Give caps	2(0.4)
Give T-shirt	3(0.6)
Give flag	3(0.6)
Develop magazines	4(0.5)
Give pamphlets	7(1.4)
Encourage women to go for screening	1(0.8)
Offer free services	1(0.8)
Encourage use of condoms	2(1.4)
Use of radio	1(0.8)
Poster	2(1.4)
Build clinic	1(0.8)
Threaten women to go for screening	1(0.8)
Use community health workers	6(1.2)
Use special women at clinics	1(0.8)
Use letters	1(0.8)
Use cell phone reminders	2(0.4)
Use community members	1(0.8)
Use civic organizations	1(0.8)
Services to be provided by competent professionals	1(0.8)
Use of chiefs	1(0.8)

4.5 Discussion of the Findings

One main theme emerged from qualitative research findings, that is, perceptions regarding the provision and utilization of cervical cancer screening services. Then five themes from the main theme were developed, that is, conceptualization of cervical cancer screening services provided, attitudes and practices of women, cervical cancer screening services provided, outcomes after cervical cancer screening and suggestions related to promoting the utilization of cervical cancer screening services. Subsequent sub-themes for each theme were developed.

Effective provision of cervical cancer screening prevent occurrence of cervical cancer. Cervical cancer is identifiable in its early stages by screening for precancerous cervical lesions using the safe and cost-effective Pap smear. If identified in its early stages, cervical cancer is preventable or curable by surgical removal of those precancerous lesions (Moodley, 2009:13). Population-wide cervical cancer screening programmes have been effective in reducing the incidence of the disease in developed and industrialized countries, this have been achieved because of attending to the provision of health disparities that were there, such as access to health care services, availability of resource and other barriers (Natale-Pereira, Enard, Nevarez & Jones, 2011:3544). The results are presented in a narrative format with participant's direct quotations written in italics, and supplemented by literature to embed and contextualize the results in existing literature.

❖ **Main theme: Perceptions regarding the provision and utilization of cervical cancer screening services**

Cervical cancer is the second most common cancer among women with early detection and prompt treatment as best management options (Arulogun & Maxwell, 2012:13). There is little information that exist regarding the women's perceptions and utilization of these services, that is why it is important to conduct this research and develop strategies that can be used to influence utilization of cervical cancer screening services. Over the years, awareness and uptake of cervical cancer screening services have remained poor in developing countries (Arulogun & Maxwell, 2012:13).

According to Arulogun & Maxwell (2012:13), when they were researching about women’s perception of cervical cancer services they found that 80% of women believed that screening should be done as soon as sexual intercourse starts without considering the age. Problems associated with perception of utilization of cervical cancer screening services include late reporting, ignorance and cultural issues relating to cervical cancer screening. The respondents indicated that they were not utilizing the services because they were not aware of cervical cancer. Though women did not know what cervical cancer and cervical screening is all about they still believed that it is important to do a Pap smear for early detection and treatment (Ndikom & Ofi, 2012:11). Perception have an impact on the utilization of cervical cancer screening which is either positive or negative. According to HBM, the individual woman’s perception plays a major role in making her to change her behaviour (Dennil et al., 1999:157).

The discussions below will reflect how women perceived susceptibility to and seriousness of cervical cancer which has influenced the way they perceived threat of cervical cancer and the impact it had in influencing her to utilize cervical cancer screening services. The perceived benefit of preventing cervical cancer by being screened and the barriers that were discouraging women from utilizing cervical cancer screening services were identified in the findings. Factors that affect the utilization of cervical cancer screening services that needed modification were identified and the influence it had on how cervical cancer was perceived was noted.

4.5.1 Theme 1: Conceptualization of Cervical Cancer Screening Services Provided

Table 4.5 presents theme 1 and its sub-themes developed from data collected.

Table 4.5: Conceptualization of cervical cancer screening services provided

Themes	Sub-Themes
1. Conceptualization of cervical cancer screening services provided	1.1 Explanation of guidelines for cervical cancer screening services
	1.2 Processes of screening involvement of other multidisciplinary team members outlined
	1.3 Recording an important aspect in cervical cancer screening services

Cervical cancer is the most common cancer and the leading cause of death among women in developing countries (Arbyn et al., 2011:450). Women's disease conceptualization is in relation to their beliefs about the causes and perceived disease risk. These beliefs provide a basis for PHCNs to draw on the *Cancer Screening Programme* that will provide ongoing cervical cancer screening services to women and give health education that is appropriate to women. PHCNs need to be trained in order to be competent in taking a Pap smear since the course is offered around Vhembe District. All the clinics around Vhembe District have a guideline that they are using for provision of cervical cancer screening. Women's conceptualization of being screened is motivated by their discussions about cervical cancer screening, their cervical cancer screening preferences and the influence that the social networks have on their decision for cervical screening. Francis, Nelson, Liverpool, Soogun, Mofammere & Thorpe (2010:8028) and Nnodu, Erinosh, Jamda, Olaniyi, Adelaiye & Lawson (2010:100) suggest that conceptualization of many African women is affected because they either have little awareness of cervical cancer or because they express perceptions of cervical cancer differently from the biomedical model.

4.5.1.1 Sub-Theme 1.1: Explanation of Guidelines for Cervical Cancer Screening Services

The ultimate goal in the guidelines is to screen at least 70% of women, nationally, within 10 years of initiating the programme, that was by 2010 (NHS, 2012:1). The National Health Strategic Plan (NHSP, 2011:9) of SA lists scaling up and expanding the coverage for cervical cancer as a key strategy for prevention of cervical cancer. Coverage of 70% remains sub-optimal and a significant number of women with precursor lesions do not start with treatment (SALC Report, 2012:8). However, there are still challenges with the implementation of the cervical cancer screening guidelines. All the provinces, including Limpopo, failed to reach this target of screening of at least 70% of women within 10 years of initiating the programme. The screening rate from 2000 was very low, visible increases in cervical cancer coverage rate in all the provinces is as from 2010 (Mamahlodi & Kuonza, 2013:5).

Guidelines are needed for provision of cervical cancer screening services. The guidelines promote the primary prevention of cervical cancer at the primary level, which is the clinic. A well-organized and developed cervical cancer screening programme is successful in preventing cervical cancer. SA is better placed than most of sub-Saharan countries in the implementation of the policy, but will not attain a successful screening programme without increased effort (Sibiya, 2013:387). In most sub-Saharan African countries, cervical cancer prevention and screening programmes are either nonexistent or undeveloped (Moodley, 2013:3).

The success of the cervical screening programme in reaching its objectives depends on achieving adequate coverage (NHS, 2012:2). Where screening programmes exist, coverage is often a problem (Moodley, 2013:3; Natale-Pereira et al., 2011:3544). The findings reveal that in all the clinics they had the guidelines which they use for provision of cervical cancer screening; they are aware of the content of the guidelines and they are implementing it as directed. When all the clinics are utilizing the guidelines to provide cervical cancer screening services it showed that modification of factors that affect the perception of cervical cancer that promoted the likelihood of taking the recommended preventive health of being screened has been promoted according to the HBM (Dennil et al., 1999). Participant one said:

“We do have the guidelines document and we have been orientated on how to implement it. We provide cervical cancer screening services as prescribed by the guidelines.”

The Pap smear is done by PHCN who have completed a special course of taking a Pap smear test. This was confirmed by all participants as they were all trained on how to take a Pap smear. Participant four said:

“We were taking Pap smears to all women even before we did the short course of taking a Pap smear. The course has increase the amount of the smear and how to scratch the cervix in order to get the smears.”

A Pap smear is performed by a professional nurse and it is a secondary prevention, aiming at early detection and treatment of cancerous cervical lesions (Mogotlane et al., 2009:4.46; NHS, 2012/13-2016/17:2).

Since the starting of the new course where PHCNs are retrained on how to take a Pap smear there are no longer Pap smears that are returned for repeat because of problems with taking of Pap smears. This is because nowadays the trained PHCN is able to perform it effectively. This is supported by participant six who said that:

“The Pap smear course has helped a lot because we no longer call women to come back for a repeat Pap smear because of the rejection of the first specimen due to errors that happened during collection like contamination of the smears or insufficient specimen.”

If the second smear is also inadequate, the patient should immediately be referred to a known competent screening service where Pap smear will be done by the laboratory technician or medical doctor. A woman with an inadequate smear should be re-screened (Moodley, 2013:4). The researcher has observed that the method of scrubbing the cervix, the amount of smear when taking Pap smear has changed a little, but there is no new technology that is being used to take a Pap smear. This was also confirmed by all the participants, but participant eleven said:

“Presently there is no technology innovated specifically for taking Pap smears. We are still using the old equipment, that is, a vaginal speculum and a wooden spatula, the difference is in the improvement of the method of scrubbing the cervix in order to take the smear and the amount of the smear taken. That is why there is this new Pap smear course.”

Technological interventions and innovations alone are not sufficient to improve cervical cancer screening services in SA (SALC Report, 2012:6). The new technology would help in reducing the work of cleaning and sterilizing the equipment for taking a Pap smear in prevention of transmission of the HPV virus found in the vagina. The HPV is a very stable, hardy virus, and therefore more

difficulty is experienced in sterilizing instruments adequately, e.g. vaginal specula used in Pap smear collection. According to the guideline, measures have been prescribed to sterilize the equipment and this also takes time. Participant six agrees with all the participants when saying that:

“The clinic is provided with a sterilizing machine and sterile water to sterilize the vaginal speculum or they provide disposable vaginal specula in order to prevent transmission of infection from one patient to another.”

It has been found that HPV is relatively resistant to ether and acids. Chemical disinfectants are not recommended (NHS, 2012:2). Effective disinfection options for HPV which will be used for the non-disposable instruments/specula should be cleaned thoroughly with hot water, soap and a brush wearing gloves for own protection. Splashes of water all over should be avoided to avoid that HPV be transmitted to staff (WHO, 2010:13). Single-use disposable instruments/specula are the preferred option. Small autoclaves will be made available at the clinic for instruments/specula to be autoclaved at 121°C at a pressure of 15 psi for 15 - 20 minutes (NHS, 2012:2). This is the ideal method of sterilization. The items are completely immersed and the instrument is exposed to boiling water for the required time, that is, at 100°C for 60 minutes. The boiling water bath should preferably have a timing mechanism or else an alarm clock can be used (NHS, 2012:2).

4.5.1.2 Sub-Theme 1.2: Processes of Screening Involvement of Other Multidisciplinary Team Members Outlined

Findings revealed that the PHCNs at the clinic work with other multidisciplinary health team members. The PHCN is the one who coordinate the patients' care with other multidisciplinary health team members at the clinic. When the patient consults, the PHCN will assess the patient and refer the patient to any member of the multidisciplinary health team at the clinic for further assessment or treatment. If it is a woman who is coming for a Pap smear, she will explain the procedure to the woman and take a Pap smear. She will communicate with the lab technician using a form where she will write the patient's particulars and the type of the test to be done on the

specimen. She will then give the specimen to an officer who will take it to the laboratory for testing. In the clinics where they have community-based health workers, the PHCN refer patients to them through a communication book where the PHCN will write the particulars of the woman and the reasons for referral. This is supported by participant one who said:

“Yes they are aware, in fact they know that at the clinics all the conditions are checked and treated by PHCNs, doctors and other health care workers. They are aware that nowadays there is a clinic doctor and other health care workers to whom they can be referred to at the clinic.”

Quantitative research support this findings by the way participants responded to question 4.4.22: Are you aware of other health professionals, like a doctor, social worker or dietician who are working in this clinic? Most partipants were aware of services provided by other multidisciplinary health team members as 300 participants = 60% indicated that they are aware, 125 participants = 25% indicated that they are not aware and 75 participants = 15% were not sure of whether they are aware or not. Strategies to be used to encourage women to utilize cervical cancer screening services effectively need involvement of other multidisciplinary health team members so that multiple strategies can be used since each member of the multidisciplinary team meet with the patient in one way or another.

This is supported by Ntekim (2011:28) and Scarinci et al. (2010:254) who added that the key sources of information can include other women who are well-informed about or have been screened, leaders or members of women’s groups, midwives, PHCNs, traditional healers, community health promoters, community leaders, doctors and so on. Therefore, when a woman who was never screened hear somebody whom she honour having been sreened, it will influence how she will also perceive screening which is how the HBM influence a change in behavouour (Dennil et al., 1999:157).

4.5.1.3 Sub-Theme 1.3: Recording an Important Aspect in Cervical Cancer Screening Services

The findings reveal that all patients' records are kept in the register. It cannot be easy to follow the register well since patients are recorded on a daily basis after consultation. In all the clinics, patients do bring a notebook each time they consult and they keep it as their health record and all participants are aware of these. This method become ineffective if the patient loses the notebook because it will be difficult for the PHCN to retrieve the patient's health records. The patient may bring a new book and leave the old one if she does not want to reveal her cervical cancer screening status and because the clinic does not keep her records her cervical cancer screening results will not be known. Technology is not used at the clinic to support keeping of a patient's health record for continuity of cervical cancer screening services. Paper-based methods of record keeping are inadequate with regard to supporting informational continuity of patient care, it makes it increasingly difficult to achieve continuity of care. This shows the importance of using electronic record keeping methods to improve continuity of care. Paper-based patient records were adequate in the past, but they are not sufficient in the modern health care facilities used presently. The community, all the participants, including the researcher are also aware of the small notebooks that they should take along each time when they go for consultation at the clinic. Participant one said:

“We encourage patients to bring the notebook wherein the PHCN write down the patient's health information. At times patients come with the new note books because they did not come from home when they visited the clinic or they don't want their previous ill health to be known.”

Participant seven said:

“We have a spaza shop outside the clinic which sell the notebooks so that patients who do not have it can buy it for consultation.”

Participant eleven said:

“Patients are well orientated about the booklet. Some even take the notebook along when they visit, because you will find a patient who is not from this area having a book when consulting.”

The government has also identified paper record keeping as a problem, it is still developing an effective record and filing system which is not yet in use (Limpopo DoH Annual Report Vote 7, 2013:124). When patients are holding records themselves it will make it easy that the records are shared between clinics, so there will be effective communication between the health workers and continuity of care. It makes health providers aware of their patient’s cervical cancer screening status (Fishkin & Rosauer, 2012:1). There are problems associated with manual paper-based patient records, such as the failure of health care providers to facilitate adequate follow-up for patients, inadequate provision of notes in order to make the correct diagnosis and to provide the right treatment (Mostert-Phipps, Pottas & Korpela, 2012:326).

This is confirmed by (Fishkin & Rosauer (2012:4) who indicated that Kenyan patient records are insufficiently standardized, shared or managed and this affects continuity of care. When a patient is referred between health care providers, often the referral letter does not contain adequate information for primary health care providers to give informed follow-up care. To maintain continuity of care, all health care providers caring for a patient should have relevant information that relates to that patient’s diagnosis, progress and management plan (Mostert-Phipps et al., 2012:326). The use of software at the clinics to capture patient data about cervical cancer-related matters encourages continuity of care and it will also urge women to utilize cervical cancer screening services (Fishkin & Rosauer, 2012:1). This is confirmed by Dennil et al. (1999:157) who asserted that the HBM electronic record keeping at the clinic for continuity of care is a modification factor that influences the woman’s perception of utilization of cervical cancer screening services. It is suggested that electronic records are made at PHC level because PHC providers act as entrance to other levels of care so that it would then be easy and possible to exchange health information with other health care providers once they also adopted electronic records (Kim, Ati, Kols, Lambe, Soetikno, Wysong, Tergas, Rajbhandari & Lu, 2012:327).

4.5.2 Theme 2: Attitudes and Practices of Women

The table below present the attitude and practices of women

Table 4.6: Attitudes and practices of women

Themes	Sub-Themes
2. Attitudes and practices of women	2.1 Positive versus negative attitude towards cervical cancer screening
	2.2 Excuses given to avoid cervical cancer screening
	2.3 Acceptance versus lack of acceptance to be assisted by male PHCNs
	2.4 Explanation of predisposing factors to cervical cancer
	2.5 Lack of support versus support by male partners towards cervical cancer screening

The attitudes of women towards cervical cancer and cervical cancer screening either encourage or discourage women, in most instances it discourage utilization of cervical screening services. According to Adekanle, Adeyemi & Afolabi (2011:27) in Nigeria, the reasons for the low uptake identified indicated that cost related to cervical cancer screening and socio-cultural beliefs led the women not utilizing cervical cancer screening services. The major factors identified by the women that influence screening utilization were illiteracy, belief in not being at risk, having many contending issues, nonchalant attitude to their health and financial constraints (Ndikom & Ofi, 2012:11). Ntekim (2011:24) also confirmed that some women who do not have anything that deny them access to screening services—they do not get themselves screened due to wrong believes about cervical cancer. The HBM, being a cognitive model, suggests that behaviour is determined by various beliefs which put threats to an individual's health (Sharma & Romas, 2012:6).

4.5.2.1 Sub-Theme 2.1: Positive Versus Negative Attitude Towards Cervical Cancer Screening

The attitude related to women's views about cervical cancer, their awareness of about Pap smear and the services that are rendered at the the clinic, make them to go for Pap smear which is positive or it may make them not to go for Pap smear which is negative. Women's views about cervical cancer will be determined by their knowledge about cervical cancer. In this study, findings reveal that some women are developing a positive attitude towards living the life that expose them to

cervical cancer (Nnodu et al., 2010:97). If they had knowledge about the effect of that type of life they would not live it. In support of this, participant eleven said:

“Many girls are sexually active and influenced by what they see on television or internet. They practice unprotected sex. They use medicine that make them enjoy sex or attract men to love them more. They have many partners or they change one partner from another or they have many partners. At the end of the day this type of life affects their health. Some end up having cervical cancer.”

Some women who lack knowledge of the signs and symptoms of cervical cancer end up not being aware that they are ill, they need to consult when it is still early, so they end up consulting when it is already late. The HBM indicates that an increase in awareness of the signs and symptoms of a disease will encourage one to seek health service. In other words, a woman who knows the signs and symptoms of cervical cancer will utilize the screening services compared to a woman who does not know (Webb, Sniehotta & Michie, 2010:1888). Participant twelve said:

“Some do not know that they are presenting with symptoms of cervical cancer when they feel cervical pain after sex they associate it with sexual pain.”

Participant eleven continued:

“They end up not knowing that they have cervical cancer. They ignore the symptoms until it is late. When they come you will find that they are not even aware that they are presenting with symptoms of cancer.”

Findings in quantitative approach as confirmed by participants’ responses to question 4.4.19: Which of the following increases your chance for having cervical cancer? shows that 195 participants = 39% do not know what increases their chance for having cervical cancer and 49 participants = 9.8% did not even have a clue of what to indicate when responding to this question. This means that they will continue living a life that exposes them to cervical cancer. At least there are some who are aware of those conditions who are going to try to avoid these conditions that increases their chance of having cervical cancer: About 111 participants = 22.2% are aware that if

you have sexual relationship with more than one man, 42 participants = 8.4% are aware that if they have sexual relationship with a partner who have sexual relationship with many women, 60 participants = 12% are aware that if they started to be sexually active at a young age, 36 participants = 7.2% were aware that failure to use condoms during sexual relationship.

In response to question 4.4.17 in qualitative research approach: Do you regard yourself as vulnerable to can also have cervical cancer? findings reveal that 115 participants = 23% regarded themselves vulnerable and 336 participants = 67.2% as not vulnerable, 49 participants = 9.8% did not know whether they are vulnerable or not. The reason for being or not being vulnerable will influence one to or not to utilize cervical cancer screening services. The main elements of the HBM is that in order for people to change behaviour, people must have the feeling of being personally vulnerable to a health threat, view the possible effects as severe, and seeing that taking a serious action is likely to either prevent or reduce the health risk.

When an individual perceives a threat as not serious or themselves as vulnerable or not vulnerable, they are unlikely to adopt mitigating behaviours (Webb et al., 2010:1888). In quantitative research in response to question 4.4.14: Do you perceive that Pap smear can detect cervical cancer earlier? 307 participants = 61.4% indicated yes, 156 participants = 31.2% indicated no and 37 participants = 7.4% did not know whether Pap smear will detect cervical cancer or not. Those who indicated no and those who are not sure obviously lack knowledge about cervical cancer and, as such, they are not going to utilize cervical cancer screening services.

Negative attitudes of PHCNs form a barrier that prevents individuals to gain access to PHC facilities (Mavhandu-Mudzusi, 2016:6). As far as attitude influence the use of condoms, people who have a positive attitudes toward use of condoms are more likely to use them. In contrast, people with a negative attitude towards use of condoms are less likely to use them during sexual intercourse (Mavhandu-Mudzusi, 2016:6), and this exposes them to health problems related to unprotected sex, for example, HPV infection. Some women's attitudes are based on religious and

traditional beliefs in determining the perception of the risk of cervical cancer. They believe that God's will is the most important factor in determining whether or not a person will develop cervical cancer. Some women's views of health is typically shaped by a combination of traditional beliefs, with most believing that illness and healing only occur by the will of God. It is important, therefore, to recognize that some women may wrongly interpret that they are not allowed to practice disease prevention interventions because it will be working against the will of God (Abdullahi et al., 2009:683).

❖ **Awareness of women about Pap smear make them to go for Pap smear.**

Awareness about Pap smear and services that are offered at their clinic make women to develop a positive attitude towards utilization of services so that they may go there at the right time for the service that they are in need of. In the rural areas of Uganda the cervical cancer screening uptake is very low because women are not aware of Pap smear. This emanates from the fact that their health care access is characterized by lack of access to information (Ndejjo, Mukama, Musabyimana & Musoke, 2016:23). Participant twelve said:

“Yes they are aware, I never attended to a woman who came inquiring whether there are cervical cancer screening service. Some do even know about vaccination of girls. They know that the clinic is a health information centre.”

In quantitative research approach in response to question 4.4.12: What is Pap smear test? though 176 participants = 35.2% knew what Pap smear is, there are still many women who do not know what a Pap smear is, as such they won't go for a Pap smear. Those that thought that a Pap smear is a treatment for cancer were 93 participants = 18.6%, those that thought that Pap smear is a test for STIs were 35 = 7% and those that totally did not know were 161 = 32.2% and those that did not even have a clue were 35 = 7%. These figures show that there will be a large number of women who won't be utilizing the screening services because of not knowing what a Pap smear is. McCarey (2011:4) found that there are gaps about knowledge about Pap smear and this

discourages the utilization of cervical cancer screening.

Again, in quantitative research approach findings show that there are many women who are aware that cervical cancer screening services are provided at the clinic. This is supported by how they responded to question 4.4.1: Is there cervical cancer screening services in this clinic? Participants who were aware that there are cervical cancer screening services in that clinic were 396 = 79.2% as compared to 89 = 17.8% who were not and 15 = 3% who did know whether those services are provided.

Women need to be aware of cervical cancer in order to utilize cervical cancer screening services for them to develop a positive attitude to utilizing those services with knowledge so that they can complete the process of cervical cancer screening well. It is not wise to tested or treated without knowledge of the test or treatment. Lack of information about how a Pap smear is done prevents women from making informed decisions about cervical screening (Abotchie & Shorkar, 2010:415).

Findings revealed that some women in Vhembe District lacked knowledge about cervical cancer and prevention thereof, but they displayed positive attitudes to the utilization of cervical cancer screening services (Ramathuba, Ngambi, Khoza & Ramakuela, 2016:2073). Women who do not know what a Pap smear is won't even know that with any gynaecological complaints, such as, pain, bleeding, offensive discharges or loss of weight requiring a smear should receive a smear as part of the routine gynaecological examination (Mogotlane et al., 2009:4.46). The most prevalent barriers of being screened for cervical cancer were lack of awareness that the purpose of Pap screening is to diagnose cervical cancer (Abotchie & Shorkar, 2010:415).

The study conducted by Owoeye & Ibrahim (2013:8) indicate that there is a positive relationship between awareness and practice of cervical cancer screening, meaning that the more people are aware of cervical cancer screening the more they are going to utilize the services. The HBM seeks to increase awareness of how serious the outcomes of behaviors (being screened) can be in order

increase the quality of one's life, which is prevention and early detection of cervical cancer (Webb et al., 2010:1888). The above will encourage the utilization of cervical cancer screening for women to live a healthy life.

4.5.2.2 Sub-Theme 2.2: Excuses Given to Avoid Cervical Cancer Screening

Excuses are commonly used as reasons for not doing that which is supposed to be done—they are used as explanations that are said to justify an action. Excuses convince one to comfortably not do as expected. Findings identified various excuses that were given for not being screened, for example, fears of pain, embarrassment, queuing too long for Pap smear testing, hatred for Pap smear, duration of the procedure being too long, no equipment to be used when taking a pap smear, times when Pap smear services are being given, transport and distance from home to the clinic and from the clinic to home. Married women give excuses of not being granted permission to use cervical cancer screening services by their husbands. Participant one said this in relation to fear, time and transport:

“Not all of them. Some do accept the proposal voluntarily, some are forced to accept the proposal because it will be related to the health problems that brought them to the clinic. In most instances they will give an excuse why it won't be possible to screen them there and then. Some are afraid, some are rushing to the fields they have no more time to still be at the clinic, some will suggest that they will come another day for that, some are rushing for public transport, and so on and so on. Most of the clients around here use public transport for reaching the clinic, so they are many in the morning. We need to attend to them so that when the transport home arrives it must find them ready, otherwise that shall mean footing home and its far. Transport give them the reason to refuse to be screen because they think that screening may take long and transport home may leave them and they will remain stranded because they stay far and the area is also mountainous. People that stay nearby they start by doing their households activities in the morning or going to the fields first in the morning because they know that in the morning the clinic will be full of those that use public transport and this will make them wait longer for consultation.”

Participant three added:

“I observed that some women do not want to be screened because they are afraid of the outcome of the Pap smear, they are afraid of knowing that they have cervical cancer...they are shy during the procedure, they are not that much comfortable.”

Participant three further said:

I observed that some women do not want to be screened because...if they are in a que they will keep on asking you time and again whether it takes time for them to get in. At times when one gets outside the consultation room to assess the que, you will find that other clients are gone.”

Participant one said:

“The situation becomes worse if we don’t even have the equipment for screening, like when we don’t have the disposable speculum or sterilizing equipment.”

Participant one said this again about married women:

“Women are afraid of using the services because they think that their husbands will suspect something if they want to be tested, meanwhile they are not sick, it will be thought that they are having an extramarital sexual relationship. Meanwhile the unmarried women will opt to go for cervical cancer screening as they would see the advantage of early diagnoses and treatment.”

In the quantitative approach, fear of pain and embarrassment were confirmed by the participants’ responses to the question 4.4.7: If you have never been done a Pap smear is it because of one of the reasons listed below? Those who excused themselves because of fear for embarrassment were 76 participants = 15.2%, excused themselves because of fear from pain were 122 participants = 24.4%. Some, 40 participants = 8.% excused themselves because queuing for a Pap smear was too long, those who had hatred for Pap smear were 10 participants = 2%. Duration of the procedure

being too long were 41 participants = 8.2%. No equipment 150 participants = 30% and 61 participants = 21.2% did not respond because they don't have those fears of a Pap smear and they were tested. Because of fears, some women will not use cervical cancer screening services.

In the quantitative approach, participants' responses to a question about their marital status in the biography showed that more women were married, that is, 198 = 39.6%, unmarried were 185 = 37%, divorced were 48 = 9.6%, widowed were 66 = 13.2%. The situation is worsened by the fact that these women depend on their husbands for permission to go to the clinic or money for transport (Mattson, 2010:5). In the quantitative research approach, findings showed that lack of equipment for doing a Pap smear will discourage women to utilize cervical cancer screening services. This was confirmed by the participants' responses to question 4.4.7 as indicated above that 150 participants = 30% cited that they were not screened because there were no equipment.

Feelings of fear that cervical cancer screening will result in discomfort, harm or pain, discourage the utilization of these services. It has been confirmed that embarrassment and fear of pain, or the detection of cancer hinders women to utilize the cervical cancer screening services (Owoeye & Ibrahim, 2013:48; Abotchie & Shokar, 2010:414). Ndlovu & Boshoff (2013:106) and Abdullahi, et al. (2009:682) supported that pain, fears and embarrassment discourage women to go for screening and these feelings are worse if the woman does not have knowledge about cancer and screening. Lack of knowledge make women develop their own concepts about a situation and fears of unknown. This is supported by Ntekim (2011:26) who indicated that women in Mexico have fear that treatment will disable them sexually. Fear of having a positive cervical cancer screening results discourage women to go for screening (Ndikom & Ofi, 2012:11). Their fear, according to the HBM, will affect their perception of threat of the cancer and this will discourage them from being screened.

Transportation is an important matter for one to access cervical cancer screening services, especially in rural areas where the travel distances are great and access to alternative modes of

transport is less prevalent. This study found that transportation and geography impact negatively on the utilization of cervical cancer screening services where women have to travel more than 5 km on mountainous roads. This scenario is not in accordance with the Batho Pele principles and Patient's Rights charter which prescribe that a patient should have access to health care and the acceptable distance is less than 5 km (National DoH, 2011:4). The long distances, that is more than 5 km travelling to the clinic show that the clinics are still few and that the National DoH's prescribed distance has not yet been reached. The research found that in most clinics the communities stay more than 5 km away from the clinic. Some have to walk to the clinic being ill or in need money for transport to go to the clinic. Participant one to seven are from the clinics that are affected by mountains, they indicated that the area affects their way of working and the way the community utilize the clinic. Participant one said:

“Some fail to come to the clinic because of staying far from the clinic and the type of roads that are not good and they are at the mountains making it difficult for them to walk to the the clinic. This area does not have frequent transport during the day, except for the bus that pass in the mornings and evenings.”

Participant one continued:

“This is a mountainous area, some people stay behind these mountains. Most of the clients around here use public transport for reaching the clinic though some do walk. These patients arrive at the clinic being many at the same time in the mornings as the transport pass. We need to attend to them so that when the transport back home arrives it must find them ready, otherwise that shall mean that they will foot home as it's far and there are no other means of going home. Transport give them the reason to refuse to be screened because they think that screening may take long and transport home may leave them and they will remain stranded because they stay far and...”

Participant four said:

“No patient is left by her transport because (shaking her head: It a sign of

emphasizing the point) we have even catergorized patients according to their transport times so that we may treat them within their timeframe because they all come at the same time.”

In the quantitative approach, this was confirmed by participants’ responses to question 4.4.2: How far is this clinic from your home? Although there were 254 participants = 50.8%, who stay within a 5 km distance from the clinic, 229 participants = 45.8%, is an alarming number of participants living more than 5 km away from the clinic and 17 participants = 3.4% did not respond because they were not sure of the distance.

In response to question 4.4.3: How do you reach the clinic from your home? the findings showed that most of the participants walk to the clinic, 271 participants = 54.2% as compared to 178 participants = 35.6% use public transport, 35 participants = 7% use their own transport and 16 participants = 3,2%, either walk or use transport because they did not know where they fit best in the choices given.

The researcher also witnessed the roads when travelling to and from the clinic to collect data. This is supported by Ntekim (2011:20) who indicated that high rates of invasive cervical cancer which was attributed to difficulties in having access to cervical cancer screening services as most countries of sub-Sahara Africa are located within mountainous forests.

Women that stay far from the clinic aret always in a hurry, they want to consult, be treated and leave the clinic in order to catch the transport. Now if the PHCN is proposing that screening be done, they are not even going to listen to that because they will be happy that they have finished before time so they are not going to be left behind by transport because of screening.

Findings in this study showed that women are walking long distances or using money for transport. The distance affects attendance of women for screening because when the woman is not ill they become reluctant to go to the clinic voluntarily for screening. The women used poorly constructed gravel roads to reach the clinics in most instances, especially because these roads

were damaged by rain. Access to the clinics is challenged by those poorly structured gravel roads and mountainous areas (DoH, (b)13:2013).

The barriers to an effective screening programme in poor and developing countries include failure of women to avail themselves of screening (Moodley, 2012:13). Additional trips to the health centre required from a woman in order for her to reach the cervical cancer screening services discourage her to use those services (Kim et al., 2013:2). Montoya (2011:79) indicated that transport problems affected the uptake of cervical cancer screening negatively. The distance and access to transportation impact the likelihood that the woman will miss or delay a trip to the clinic (Sabatino, 2012:102). This situation is a factor which needs modification because, according to the HBM, it made women not to go the clinic for screening (Dennil et al., 1999:157).

4.5.2.3 Sub-Theme 2.3: Acceptance Versus Lack of Acceptance to be Assisted by Male PHCNs

Exposing one's private parts to other people is not an acceptable behaviour in Tshivenda culture, so it becomes worse if one has to expose them to a male person to even touch them. Women feel uncomfortable and embarrassed when the Pap smear is performed by male PHCNs and this forms a barrier for them to utilize cervical cancer screening services (Abdullahi et al., 2009:682). In this research, all participants confirmed that it is not all women who do not want to be screened by male nurses.

Participant one confirmed by saying:

“It differs with the patient, some do verbalize that they don't want to be screened by a male PHCN, some do not feel the difference, whether they are done by a male or female. Most of those who don't want to be screened by males verbalize that they feel embarrassed when screened by males.”

Participant five said:

“Some women do not want to be screened by a male PHCN. They don't feel at ease. They are shy to be touched on their private parts by males.”

Utilization of cervical cancer screening is negatively affected in clinics where male PHCNs are allocated to offer such services. This was confirmed by the responses to question 4.4.9: Do you have a problem when a Pap smear is done by a male person? Responses indicated that 264 participants = 52.8%, had a problem and they are many as compared to 211 participants = 42.2% who did not have a problem with that, while 25 participants = 5%, neither had nor did not have a problem. Some participants did not respond to the two items as given.

Provision of cervical screening services by male is not acceptable by all women. In a study conducted by Owoeye & Ibrahim (2013:48), the reasons given for non-participation of women in cervical cancer screening services included unavailability of a female PHCN to offer such services. Matejic et al. (2010:28) and Owoeye & Ibrahim (2013:49) confirm that the availability of female physicians seems to play an important role in making decisions about cervical cancer screening. According to Mupepi, Carolyn, Sampsel, Timothy & Johnson (2011:1), barriers to women utilizing the services for screening include difficulty in being examined by a male health practitioner. This barrier might be influenced by culture which should be taken into consideration when providing cervical cancer screening because culturally, some women are not supposed to undress for man let alone fidgeting with their private parts (Abdullahi, 2009:684).

4.5.2.4 Sub-Theme 2.4: Explanation of Predisposing Factors to Cervical Cancer

Knowledge about the causes of cervical cancer is mostly useful in preventing women from being affected by cervical cancer because they will avoid activities that cause cervical cancer. Therefore, if women do not know the causes of cervical cancer they will not know what to do or not do in order to prevent cervical cancer, they won't see the reason for utilizing the available screening services. Findings reveal that many women do not know the causes of cervical cancer. Participant one said:

“Many of the girls engage themselves in sexual activities which also influence them to change one partner from another or they have more than one partner. The Mandela moneys on the other hand encourage them to make babies in order to get that money, so it is obvious that they are engaging themselves to unprotected sex. There are people who are selling traditional medication said to be good in making a sexual partner to enjoy sex or to no longer love any other partner. Men and women are buying those medicines in order to achieve the goal.”

This is supported by the quantitative findings of participants’ responses to question 4.4.19: Which of the following increases your chance for having cervical cancer? Many participants knew what could increase the chance for having cervical cancer, 111 participants = 22.2%, it becomes a concern if 195 participants = 39%, do not know those chances. It has been said many times that use of condoms prevent HIV/AIDS and STIs, so if only 36 participants = 7.2%, indicated that failure to use a condom increase the chance for having cervical cancer it raises a concern related to poor knowledge of cervical cancer; 7 participants = 1.4% indicated that using the same bath with somebody who has cervical cancer, 49 participants = 9.8%, knew other incidences that could increase the chance for having cervical cancer, others opted not to respond to the given items. Though 60 participants = 12.0%, indicated that if one started to be sexually active at a younger age one exposes oneself to cervical cancer.

Women had low perceived susceptibility related to sexual activity and cervical cancer because they lack knowledge about cervical cancer, especially about the risk factors related to the disease (Abdullahi et al., 2009:682). Though some women may have knowledge about the safety of using condoms during sex, the use of condoms is affected by the fact that it is controlled by the one who have power to allow for the condom to be used or not used. Men and mostly women are often not in control of their sexual behaviour or their reproductive health decisions (SALC Report, 2012:6).

Quantitative approach findings in response to question 4.4.18: Do you consider cervical cancer as a problem sufficiently serious to be worthy of consideration? revealed that participants who

considered that cervical cancer as a problem sufficiently serious to be worthy of consideration are many, 249 = 49.8%, as compared to 182 participants = 36%, who saw cervical cancer as not being a problem. The consideration might have originated from seeing patients experiencing pain and dying due to cancer; 69 participants = 13.8% might not have responded because they don't know anything about cancer and they cannot tell whether they regard cervical cancer as serious or not. In the study conducted by Ndlovu & Boshoff (2010:38), lack of sufficient knowledge was demonstrated by more than half (57%) of women who did not know risk factors for cervical cancer. The danger of not knowing risk factors is that the chances of prevention of behavioural risk factors will not be observed. This will then lead many women to live at risk of having cervical cancer. According to the HBM, knowledge about cancer-related matters is a structural variable which affects women's perceptions of the seriousness of cervical cancer, whether or not it is a threat and whether or not it needs to be prevented (Dennil et al., 1999:157).

This is confirmed by Kim et al. (2013:3) who revealed that knowledge and low risk perceptions of cervical cancer were the most important barriers to screening, it discouraged women to utilize cervical cancer screening services. In order to change the attitude of women, health messages should be formulated to address specific areas (Seow, Huang & Straughan, 2015:225; Ramathuba et al., 2016:5). Unlike women, men with higher levels of education demonstrated significantly greater knowledge about cervical cancer, matters such men will help their wives with in cervical cancer aspects such as screening and treatment options (Williams & Amoateng, 2012:149).

4.5.2.5 Sub-Theme 2.5: Lack of Support Versus Support by Male Partners Towards Cervical Cancer Screening

The exclusion of men is influenced by socio-cultural factors that men themselves are not to involve in matters related to women, but they are the ones who take final decisions in the family. So this affects woman because it makes men to be influenced more by the socio-cultural practices where men will not support their wives because they don't see a problem to consult since their wives are not even ill. This is a risk factor if the community is not informed to change attitude. Poor support

may make women to appear inconsistent in their choices for utilizing cervical cancer screening services (Matejic et al., 2010:28). A feeling of the husband or family members being and not being involved in their health affects the women's utilization of cervical cancer screening services as this may bring about wrong interpretations. Participant seven said:

“We don't commonly see men involving themselves in matters related to reproductive health screening, like for example maternal care, family planning or the very cervical cancer screening we are talking about.”

The quantitative study in this research revealed that when responding to question 4.4.5: If you were once done a Pap smear was your husband involved when you went for the Pap smear? Yes answers were from 60 participants = 12% and 138 participants = 27.6 answered no. Those who did not respond because they are either unmarried, widowed or divorced were 302 participants = 60.4%. A high number of women showed that men are not involving themselves in women issues. According to Wright, Aiyedehin, Akinyinka & Ilozumba (2013:6), men should be involved in cervical cancer screening services in order to understand, motivate and support their women to utilize the cervical cancer screening services. Cultural factors were identified as barriers to male involvement in female-orientated services (Nesane, Maputle & Shilubani, 2016:929).

The man as the head of the family is the main person whose support has more impact on whether cervical cancer screening is done or not, especially because cervical cancer screening affects the reproductive structures. The findings from all the participants reveal that men were not supportive to their wives when it comes to cervical cancer screening matters and this is mostly influenced by the fact that those men are negative towards cervical cancer screening as they lack knowledge about cervical cancer screening. Participant one said that:

“Most men do not support their wives because most married women don't come with their husbands when they come for cervical cancer screening services at the clinic. At times women even say that they will come back for follow-up only when they have a chance to do so because they don't want their husbands to

know that. Some will say they will come back if their husbands allow them to do so.”

Participant nine said:

“Though it is not the issue of male PHCNs, women have many excuses of not being done a Pap smear. Some women are afraid of their husbands, like they will suspect something if they want to be tested while they are not sick, it will be thought that they are hiding STIs which they got from extramarital sexual relationship. Some are afraid, some are not given permission or transport fees by their husband.”

The failure to support women may be because men lack knowledge because they are not included when when health education related to cervical cancer screening services are given. Some male partners do have an interest in reproductive health education and are willing to get more involved in their partner’s reproductive health care. Some are involved in family planning and antenatal care (Rosser, Zakaras, Hamisi & Huchko, 2014:5). Male partners should be included in counselling before the woman is screened. If women and men understood that treatment is offered during the same visit as screening, husbands would be more likely to accompany their wives for screening or to sign a form ahead of time that would permit cryotherapy, if needed (Kim et al., 2013:3).

According to Kim et al. (2013:3) and Whites et al. (2011:22), factors facilitating treatment were social support from husbands, relatives, friends, the encouragement and role modelling of health workers and peers. Male PHCNs can be used to go into the community to discuss cervical cancer screening with men in order to encourage men to support women to be screened. This is supported by findings that suggest that it is more effective to gain men’s co-operation prior to screening, by directing information, education, and advocacy to men and women (Kim et al., 2013:3).

Family members may assist by taking care of the children while the mother has gone to the clinic for cervical cancer screening as it was found that lack of child care may hinder the woman from

going to the clinic (Matejic, 2010:28; Abdullahi et al., 2009:683). Early teaching of boys and girls about cervical cancer while they are still at school so that both sexes can understand HPV vaccination or cervical cancer screening (Francis, Nelson, Liverpool, Soogun, Mofammere & Thorpe, 2010:8026). According to the HBM, poor support of a woman is a socio-psychological variable which needs to be modified as it influences the woman's perception about the Pap smear (Dennil et al., 1999:157).

❖ Unemployment of women

Financial constraints are major problems for women to attend cervical cancer screening services. Women with lower socio-economic status are less likely to go to clinics for cervical cancer screening, because they don't have money for travelling to the nearest clinic. The situation exposes them to die from conditions that can be prevented or cured if diagnosed early. WHO (2009:2) supported by indicating that more than 70% of all cancer deaths occurred in low- and middle-income countries. Most women are poor, they don't have money to pay the costs because of poverty. Though the government PHC services, including screening services, are provided free in SA, women still fail to utilize these services. There are no means of addressing some of the common problems that prevent women to attend cervical cancer screening campaigns. Sabatino (2012:101) sustained this statement by indicating that means should be done to reduce the client cost for utilization of the screening service. All participants are aware that women in the communities they serve are poor and they spend most of their times ploughing (subsistence farming) in order for them to supplement the income they receive from social grants. Participant three said:

“Some women are poor, they don't have money to reach areas where screening services are offered.”

Participant four said:

“This area is rural, rural, rural. There are no job opportunities. They don’t have sources of money, many woman are unemployed. They live more on grants. The common jobs are cooking for school children, working as house keepers in some few houses and ploughing though with ploughing most of them plough for themselves.”

Participant seven said:

“Most of women in this area do not work, they are poor, and they don’t have money to reach screening campaign point or area or clinic. They depend on grants and what they get from their fields. Most of the times they are mostly at the field ploughing mielies.”

The poverty rate is confirmed in Table 4.2 which summarizes the quantitative biography of women participants, i.e., at Thulamela it is 68.81%, Makhado 64.29%, Mutale 66.8% and Musina 24.21%. Most women in Vhembe District are unemployed (Table 4.2)—the unemployment rate is 18.6%. Financial dependency was also confirmed by how participants responded to the question about their occupational status in the biography. Most women were not employed, 262 participants = 52.4% as compared to 131 = 26.4%, who were employed and 104 participants = 20.8%, who were self-employed. In a study conducted by Ndlovu & Boshoff (2011:38) many women were found to be unemployed.

In response to the question about their family’s source of income as reflected in Table 4., 144 participants = 28.8% survive from monthly salaries, 243 participants = 48.6%, which is almost half of all the participants depend on the social pension or grant, 44 participants = 8.8% depend on small unregistered businesses with very little interests, 57 participants = 11.4% do not even have a source of income and lastly 12 participants = 2.4% had income from other sources not listed above. In addition, participants who responded to the question whether their income was able to cater for all the family needs confirmed that they cannot cater for their families from their incomes. Participants who said yes are 93 = 18.6% and 387 participants = 77.4% indicated that the money is not enough to cater for their families’ needs. Participants whose monies were catering for their

family needs at times and at times it could not were 20 participants = 4%.

This was also confirmed by Miriri, Ramathuba & Mangena-Netshikweta (2014:130) and Matejic et al. (2010:6) who indicated that in rural community areas of Vhembe District unemployment is rife and many families survive through monies that they gain from the social grant and self employment. The situation is worsened by the fact that most of them are neither educated nor skilled. All women do want to be healthy or live a healthy life style whether employed or not employed. Matejic et al. (2010:5) added by indicating that a large number of women who received information from multiple sources were more likely to present for screening, regardless of their employment status or occupation status.

Poverty make men to decide for women whether to go or not go for the screening as Boroughs, Massey & Armstrong (2010:340) indicate that poverty causes dependency. Sayem, Taher & Nury (2013:105) support this by indicating that economic dependency lessens the women's power in being heard. This means that women have no power to decide for themselves as they don't have the means to go there and her decisions won't even be taken. Poverty affects mostly rural black Africans, including those living in Vhembe District rural areas (Mbulaheni, Francis & Maluleke, 2014:69). It is therefore important to address matters related to poverty in order to overcome financial dependency (Akinsola & Ramakuela, 2010:305; Ncontsa & Shuma, 2013:680). It is a common practice of adolescents to start engaging themselves in sexual activities to run away from poverty in rural communities at Vhembe District and this exposes them to cervical cancer (Miriri et al., 2014:30). According to the HBM, the high costs of health services will discourage women from utilizing the health services even if they are going to benefit from the service because most of them are unemployed (Webb et al., 2010:1888).

Moreover, the biography results reflected that some women do not even have the very husband to depend on, they depended on themselves. Participants responses to the question 4.2.4 on Marital status reflected that a large number, 229 = 59.8%, which is more than half, depend on themselves,

that is, because 48 = 9.6% of them are divorced women, 66 participants = 13.2% are widows, 185 = 37% are unmarried. All of them are on their own, raising children alone. Women who did not involve themselves in participating in this question might be women who are not sure of their status as it commonly happens when one is sharing a promising relationship or staying with a married man. In support of the impact of the marital status to utilization of cervical screening services Ndlovu & Boshoff (2011:38) found that cervical cancer screening were less in married as compared to single women. Though unmarried women might find it easy to utilize cervical screening services as they won't first request permission to go to the clinic, the big problem may be when the women is in need of financial support because they won't be having a husband to provide financial support. At times, they even opt for getting money in a wrong way. Smith & Roberts (2011:1058) indicated that increasing numbers of single parents expose their children to early marriages for financial income and reduction in financial burden through marriage fees (lobola). This practice exposes the child to early childbearing which, in turn, exposes them to risks related to cervical cancer. More of the unmarried women who are employed are found to have been screened as compared to married women (Mupepi et al., 2011:945). Cervical cancer screening services should formally integrate immediate family members, including husbands and peers in the screening provision as this will encourage them to give support to the women and prompt them to clearly articulate their screening preferences (White et al., 2011:22).

4.5.3 Theme 3: Cervical Cancer Screening Services Provided

Table 4.7 below present a theme of cervical cancer screening services provided in Vhembe District.

Table 4.7: Cervical cancer screening services provided

Themes	Sub-Themes
3. Cervical cancer screening services provided	3.1 Consistent provision of health education related to cervical cancer screening
	3.2 Provision of information through different channels
	3.3 Frequency of cervical cancer screening outlined

- | | |
|-----|---|
| 3.4 | Shortage of human and material resources impacts on provision of cervical cancer screening services |
| 3.5 | Existence of various screening services |

A service is a system that provides something that is needed by the community (Wehmeier et al., 2010:590). The services that were found being provided for prevention and early detection of cervical cancer at the clinics by PHCNs were giving of health education, taking Pap smears and giving HPV vaccination, which is provided in accordance with WHO (2009:2) Cervical cancer screening provision is of importance because predictions show that deaths from cancer worldwide are projected to continue increasing, with an estimated 11.5 million deaths in 2030 (WHO, 2009:2). In all the clinics the cervical cancer screening services provided include giving of health education to make a woman aware of cervical cancer and Pap smear, taking a Pap smear and taking it to the laboratory for testing. The cervical cancer screening services are provided at each clinic during the day only. The services are provided by both male and female PHCNs who are trained on how to take a Pap smear.

4.5.3.1 Sub-Theme 3.1: Consistent Provision of Health Education Related to Cervical Cancer Screening

When health education is given to an individual it will become productive catering for an individual's needs to preventing illness. Research findings reveal that individualized health education related to cervical cancer is given each time when a need arises during consultation.

Participant eleven said:

“Group health education is given in the morning before we start with consultation and during consultation we do give individual health education relevant to the patient's health problem. We don't give individual health education when one is not ill.”

Participant three said:

“Health education is given in the morning before we start with consultation

and during consultation we do give health education when it is necessary. We don't visit people at their homes to give them health education.”

An individual approach to health education and invitations is a key strategy to increase participation in cervical cancer screening (Pavicic, 2012:2). According to Acera, Manresa, Rodriguez, Rodriguez, Bonet, Sanchez, Hidalgo, Soteras, Toran, Trapero-Bertran, Lozano & De Sanjose (2014:8) when one contacts an individual women and agrees on the date for screening, there is a notable increased utilization of the screening programme. This is because individual visits directly influence a woman's perception of the benefits of being screened as all her questions will be answered (Dennil, 1999:157). Again, in order to promote cervical screening in women information should be presented in a non-stigmatizing manner (Maree & Wright, 2011:120).

4.5.3.2 Sub-Theme 3.2: Provision of Information Through Different Channels

Providing verbal information need people who are communicating to come face-to-face with one another so that it can stimulate mutual relationship which can make one to feel free to ask questions. Nowadays, technology has advanced to an extent that information from one person can reach many people at the same time without them being together in one place. There are different channels that have been identified that can be used by the clinics to provide information. The research findings identified different channels that are being used to provide information to the community, some of which are there at the clinics, but not being used effectively.

❖ Verbal communication

Talking face-to-face and use of media was supported by participant one when she said:

“We tell them as they consult at the clinics. The radio staff do invite us to come give health education over the radio.”

Qualitative research findings support these notions in the way participants responded to question 4.4.16: Where have you heard about cervical cancer? Findings reveal that those who heard about

cancer from the radio are 142 = 28.4% and from television are 28 = 5.6%. Media and telephone communication can be used to reach as many women as possible (Sopracordevole, Cigolot, Manciola, Agarossi, Boselli & Ciavattini, 2013:49; Glick, Amanda, Clarke, Blanchard, Amy & Whitaker, 2012:223). Kontos, Emmons, Puleo & Viswanath, 2011:217 indicated that online social networking site use is convenient, effective and easily accessible.

❖ Use of various items

Quantitative findings reveal that various items that are more accessible and visible to many people almost on a daily basis can be of help in transmitting information are not always used. This is confirmed by the findings in quantitative responses to question 4.2.20: Have you ever come across information related to cervical cancer written on? Refrigerator magnets 16 participants = 3.2%, grocery plastic bags 9 participants = 1.8%, public areas 56 participants = 11.2%, boards along the road 7 participants = 1.4%, schools 37 participants = 7.4%, sanitary pads 2 participants = .4% and a total of 373 participants = 74.7% who have not seen any cancer-related information on those items mentioned.

This shows that though these items are used more frequently by women they are not used effectively as a means of transmitting information. Items can be used to disseminate information to many community members fast (Durhan, 2016:2). One good example is the information to smokers which is readily available on the very packet of cigarettes that is accessible to smokers, the warning information is written on the cigarette pack to make smokers to smoke knowing that smoking dangerous.

Quantitative approach findings indicate that there are community groups available in the community that can be used to access the community. This was revealed by the way participants responded to question 4.2.11: Do you have any of the community groups in your community? indicated that participants were aware of different community groups available in their area, that is, 5 participants = 1.0% knew about cancer group. 283 participants = 56.6% knew about village

or block group, 140 participants = 28.0% knew about stockvel group, 482 participants = 96.4% knew about football group. Only 18 participants = 3.6%, did not know about any of the community groups to choose from, obviously there are other groups they know of. Such groups can be used to disseminate information.

According to Matejic et al. (2010:6), women who received information from multiple sources were more likely to present themselves for cervical cancer screening, irrespective of their ability to estimate whether cervical cancer is a problem sufficiently serious to be worthy of consideration or not. Caution should be taken so that the information is presented in a non-stigmatizing manner during health education in order to promote utilization of cervical cancer screening services (Maree & Wright, 2011:120).

❖ **Home-based caregivers used for information giving related to cervical cancer screening**

Home based carers give full care to people who are in need of health care at the community. They are people who are from the very communities they serve, so there are no language or cultural barriers that affect the provision of the service. They are mostly in contact with the families at their homes. They train family members to be able to care for their family members who are ill. They teach the families about health-related information. They also provide the family members with the necessary equipment such as adult nappies, gloves and disinfectants. They work hand-in-hand with the clinic. This research confirmed that there are home-based carers who are providing those services in some villages. Participant one said:

“Through the home-based carers because they work out there in the community. Though they don’t go door-to-door as such but as they go around the village, they tell people as they meet them. They also tell people who stay in the homes they have planned to visit on that day. By doing that, they are able to reach as many women as possible.”

According to a study conducted by Mashau, Netshandama & Mudau (2013:226), home-based carers are available in some areas in Vhembe District. The use of home-based carers will make it more possible to access the community, following them where they are because provision of accessible screening services is a strategy to influence utilization of cervical cancer screening services (Envuladu, Agbo, Mohammed, Chia, Kigbu & Zoakah, 2012:224).

4.5.3.3 Sub-Theme 3.3: Frequency of Cervical Cancer Screening Outlined

The guidelines indicate that for cervical cancer screening, utilizing a Pap smear, the interval options is every 10 years provided that the results are normal. This interval means that women aged 30 years or older will be screened at least three times in succession, at the age of thirty, forty and fifty years (NHS, 2012:2). This research study found that the PHCNs at the clinic are aware of this frequency of cervical cancer screening and they are also informing the community about it. All participants verbalized that in all the clinics a Pap smear is performed on a woman once every 10 years. Participant twelve said:

“The guidelines instruct that there be an interval of ten years inbetween the cervical screenings provided that the results thereof are normal and that is what is being practiced.”

Participant eleven supported this ten-year interval when indicating that:

“...This surprises most of the women as they see that the ten-year interval period is rather too long. We always convince them by indicating that we are following what is in the cervical screening guidelines.”

Participant one said:

“The guidelines indicate that for every newly diagnosed HIV/AIDS woman cervical cancer screening should be done. The repeats of HIV/AIDS woman should be done more frequently, that is every two years, unlike with normal women where it should be repeated every 10 years, unless if the patient experiences some problems.”

The findings from the quantitative research question 4.2.19: How frequently should a Pap smear be done? support these finding as they reveal that most of the participants were aware of the ten-year period. The findings show that 149 participants = 29.8% were aware of the ten-year interval, which is the highest number of the respondents, 84 participants = 16.8% indicated that the interval is 6 years, 50 participants = 10% indicated that it is every year, 39 participants = 7.8% indicated that the interval is every five years and 23 participants = 4.6% indicated the interval to be every two years. 37 participants = 7.4% did not respond to this question as they unequivocally did not know what to say concerning the interval between the tests.

The reason for the 10-year interval is that it takes more than 10 years for a cervical cancer to develop, so a woman may not have cancer before the next follow-up test after a period of 10 years (Mogotlane et al., 2009:4.46; NHS, 2012:2). Women screened for the first time at the age of 55 years or more will have only one smear if the result of the first smear is negative and screening at 35-40 years has been predicted to reduce lifetime cervical cancer risk by 65 years (Sherris et al., 2014:78). According to Sherris et al. (2014:233), a woman who is screened once in her life is already 30% less likely to die from cervical cancer. This is supported by WHO (2008:9) which has recommended a minimum requirement of one adequate smear per lifetime in women older than 35 years of age.

4.5.3.4 Sub-Theme 3.4: Shortage of Resources Impacts on Provision of Cervical Cancer Screening Services

Shortage of resources hinders provision of cervical screening services. Availability of well-trained personnel, equipment or devices or reagents can affect the performance of a screening test in one way or another (Miriri et al., 2014:500). Findings reveal that in countries of low income, that is, developing countries like Vhembe District, where cervical screening resources, morphine and palliative care are not regularly available, cervical cancer screening and treatment services are difficult to provide (Chirenje, 2012:6). This affects the uptake negatively because the community do not go to the clinic for cervical cancer screening where there are no services because of lack of

resources. According to Adonis, Luiz, Mehrotra, Bassu & Sturm (2013:34), the Western Cape Province has the lowest screening services which are between 0.93% and 0.49% in SA and the reason being lack of resources which are needed for screening services. Poor countries have fewer resources compared to rich ones, hence the poor countries have low uptake of cervical cancer screening services (Anderson, Cazap, Saghir, Yip, Khaled, Otero, Adebamowo, Badwe & Harford, 2011:390). It has been found by White et al. (2011:11) that if the community is aware of availability of resources, it enhances their accessibility to cervical cancer screening services. Screening services policy, on the other hand, reveals that the best attempt to reduce the occurrence and mortality of cervical cancer is by more than 60% within the resources available (NHS, 2012:1). According to the HBM, this shortage variable affects a woman's likelihood of initiating the action of going for a Pap smear since she will perceive that she may or may not get the service (Dennil et al., 1999:157).

❖ **Insufficient capacity of PHCN in provision of cervical cancer screening services**

The ideal ratio of nurses to patients in hospitals is 2:1 to allow for shift working, and 24-hour coverage (WHO, 2010:322). According to the law, the nurse-to-patient ratio is supposed to be 1:1 in theater, 1:2 in the intensive care, critical care, neonatal intensive care units, post-anaesthesia recovery, labour and delivery units. The ratio is 1:4 in antepartum, postpartum, paediatric, emergency and other speciality care units, including the clinics because such services are also rendered there.

The researcher observed that these staff ratios are not fulfilled in none of the clinics visited. The ratio of 1:5 is for other regular hospital units, but because of shortage of staff on a global scale, prevalence of diseases such as HIV/AIDS and limited resources have placed more pressure on the health care system and this makes it difficult to achieve the prescribed ratios (DoH, 2013(a):24). Findings of this research reveal situations where the PHCNs at some of the clinics are short staffed. The shortage of resource includes shortage of PHCNs who have done a special course in doing

Pap smears. In some clinics there are two PHCNs on duty per shift, one PHCN and one who have done a special course in doing Pap smears. Other clinics have four PHCNs and others have six with no replacement if one of them is not on duty for whatever reason. Participants one, three, seven, ten, thirteen and fifteen confirmed this. Participant fourteen said:

“At times we become short staffed because someone will be on leave, be it annual, maternity, special, family responsibility or sick leave, attending meetings or courses. This has a negative impact on the provision of cervical cancer screening services as a whole. Women who voluntarily came for cervical screening will not wait for too long so they are going to leave the clinic without being screened.”

The rest of the participants clearly indicated that they are short staffed as confirmed by what participant eight said:

“We are very short staffed, we work being only four PHCNs. In our clinics we do not have nurses who relieve shortages of staff or part-time nurses.”

This has a negative impact on the smooth running of the provision of cervical cancer screening services at the clinic. Shortage of staff makes it difficult for the health workers to be able to render cervical cancer screening services (Anderson et al., 2011:388; SALC Reports, 2012:10). Some clinics have one PHCN who has undergone a Pap smear training per shift. The very PHCN is expected to also provide other health services at the clinic. Participant one said:

“I’m usually alone on duty dealing with Pap smears (Pointing that with a finger). During consultation if a woman needs a Pap smear I will go and do that. If my colleagues come across a woman who needs a Pap smear, they refer them to me. During consultation if one gets out of the consultation room you may identify some of the patients leaving or you may hear the patient commenting that people are leaving because they have waited for too long.”

This shortage of staff was also revealed in the results of the quantitative study. The way participants responded to question 4.2.15: If you have never been done a Pap smear is it because

of one of the reasons listed below? shows that queuing too long for being done a Pap smear 40 participants = 8%, embarrassment participants 76 = 15.2%, painful participants 122 = 24.4%, duration of procedure too long participants 10 = 2%, hatred participants 41 = 8.2%, participants 211 = 42.2% who did not respond because they did not have a reason for not having done a Pap smear. In addition to that, the response to question 4.2.16: If you were once done a Pap smear do you think you will go again for a pap smear? Participants who think they will go again for Pap smear are 224 participants = 44,8%, those who won't go again are 95 participants =19% and those who did not answer this question are 181 participants = 36.2%. They did not respond to this question because they were never done a Pap smear. Those who indicated that they will not go again the reason might be that of the impact of shortage of staff.

Limitations in human resources and infrastructure present challenges in improving the effectiveness of cervical cancer screening services programmes (WHO, 2013(b):31). This hinders the PHCNs to provide cervical cancer screening services effectively. It makes healthy women who came only for cervical cancer screening services to get bored by waiting for too long and they end up leaving the clinic for good without getting the service. According to Kim et al. (2013:3) and Sibiyi (2013:47), the situation where the trained PHCN to screen a woman for cervical cancer is not always available will hinder the utilization of those services. To attain a wide cervical cancer screening coverage requires an adequate supply of motivated and supported health workers with appropriate training and skills, working in a functional health system (SALC Report, 2012:9; Adonis et al., 2013:34). Hence, the results of this study will be used to develop different strategies that will motivate and support women to utilize cervical cancer screening services.

Making professional nurses the primary cervical screening providers is logical, given the need to increase access to services. However, this solution fails to recognize that a screening programme entails more than just taking Pap smears and has several components that should be well-coordinated. Due to human resource and infrastructural constraints, diagnostic and treatment services are not readily available at primary care level. Safe staffing ratios improve the quality of

patient care as supported by the Minnesota Nurses Association (2010:7) who reported that increased nurse staffing levels decrease the risks for mortality by 0.25 percentage.

❖ **Insufficient specialized PHCN to do Pap smears as prescribed by the guidelines**

PHCNs who attended course training in order to specialize in Pap smear testing are the ones who conduct pap smears at the clinics. In SA, a Pap smear course which was developed in conjunction with the SA cervical cancer screening programme is provided at Shine (wwwsahealth.sa.govt.au). The national cervical screening renewal programme has proposed a national approach to Pap smear provider education credentialing and Shine SA has thus adapted Pap smear providers credentialing process that was in use (wwwsahealth.sa.govt.au). The course is most suitable for registered nurses and midwives working in general practice or PHC provider institutions. The theoretical component consists of online pre-readings and a quiz, and 8-hour face-to-face workshop which includes the clinical skills development with a Gynaecological Teaching Associate Sex and reproductive health (Health Professions Council of South Africa/HPCSA, 2015:2). The clinical component include a Pap smear clinical training, that is, 8 supervised Pap smears after face-to-face workshop followed by a two workplace monitored Pap smear practice for three months and submission of documents for quality assurance monitoring and assessment development of clinical skills and competences; history taking, assessment and follow-up (Lewis et al., 2007:1403). All 15 participants have been trained on how to take a Pap smear. Participant one said:

“There is a course that we attended where we are trained on how to do Pap smear, we sort of specialize in doing Pap smear.”

In support, participant fifteen maintained:

“This...training reduces repeats of taking Pap smears because of something that went wrong during the procedure.”

This Pap smear training has a positive impact on screening since it empowered workers with the necessary skill for taking a Pap smear. Skills Development Act No. 97 of 1998 provides for measures that employers are required to take to improve the levels of skills of employees in the workplace. Rejection of the specimen that may lead to repeat of the procedure which may discourage the woman to come back for that has been managed. The women will not have doubts on the services provided by such professionals, they will trust that the professionals are highly qualified to render those services. Natale-Pereira et al. (2011:3544) found that lack of trust in the system discourage the community to utilize health services. At the same time if there is shortage of the very trained PHCNs, women will not use the services and this is a significant factor contributing to mortality due to cervical cancer (Tathiah, Moodeley, Denny, Moodely & Jassat, 2013-2014:9).

❖ **Insufficient material for provision of cervical cancer screening services**

All participants indicated shortage of Pap smear equipment such as sterile water for sterilization of vaginal speculas or wooden speculas, in one way or another and they all said it was periodical and that it does not occur at all clinics at the same time, that is why clinic “A” is able to refer a patient to clinic “B” with resources. Participant one said that:

“Equipment for conducting a pap smear are at times not available at the clinic. When women are told to come back to check if equipment are available or to go to another clinic so that a Pap smear can be done, they usually don’t return neither do they go to the referred clinic, even if they are experiencing the symptoms. Now, what more about those that are not experiencing any symptom...”

Participant two maintained:

“We are at times expected to do cervical cancer screening without a vaginal speculum or the water that we use for sterilization of the vaginal speculum. I for one feel that I won’t insert an unsterile vaginal speculum into the women’s

vagina knowing that I am introducing infection into the woman's body. So we end up referring the women to the clinic or hospital where she can get the service. Some do go there but some end up not going there, especially those who are not ill."

The responses to the quantitative question 4.2.15: if you have never been done Pap smear is it because of one of the reasons listed below? revealed that 150 = 30% of women have never undergone a Pap smear because of lack of equipment for providing such services. In resolving this problem, women are referred for Pap smear to the clinic or hospital where there are still equipment. These referrals result in loss of women for cervical screening. It is obvious that such situations make women reluctant to go to the clinic, they will even lose interest and trust in the type of cervical cancer screening services provided. In other words, when there are no equipment no screening services can be rendered in that particular clinic. When there are no resources women do not come to the clinic at an early stage of cancer, they end up consulting at a later stage of cancer and this leads to a high mortality. Shortage of material resources impedes the provision of screening services (DoH, 2013(b):2013; Anderson et al., 2011:388). Broken equipment and lack of supplies hinder the provision and utilization of cervical cancer screening (Kim et al., 2013:3). Insufficient material for providing cervical cancer screening services should be avoided at all cost because, according to DoH (2013(b):20), provision of screening services will be hindered if there is shortage of material resources. The Limpopo DoH Annual Report Vote 7 (2013:15) resonates with these findings in that equipment that were planned to be purchased in the 2013/14 financial year were not procured due to budget constraints and this had an impact on the delivery of service, including cervical cancer screening services. In addition, the DoH Annual Report (2013:15) confirmed that the reason why the Limpopo Province DoH to underspent on medical equipment was due to delay in the procurement processes and late delivery of medical equipment by suppliers (Limpopo DoH Annual Report Vote 7, 2013:15). Provision and maintenance of material resources need to be improved so that no woman can be denied cervical cancer screening service because of lack thereof.

4.5.3.5 Sub-Theme 3.5: Existence of Various Screening Services

There are different methods used for cervical cancer screening, the best and reliable method being the Pap smear, which is used in SA (Miriri et al., 2014:500). Farooqui & Zodpey (2012:166) reported that in India their campaign engenders a comprehensive strategy with different carefully mixed interventions on health promotion, that is, vaccination, screening, and treatment to prevent and control cervical cancer. According to the 2011 screening rates of all the provinces, Limpopo Province has the lowest cervical cancer screening screening rates (0.55%), while the Western Cape has the highest screening rate (1.03%) (Adonis et al., 2013:34).

In SA, cervical cancer screening services are free of charge and that makes it accessible to everyone. In areas where it is not offered free, it is supposed that women who have health insurance frequently undergo Pap smears compared to those who do not have, irrespective of whether there is a screening campaign or not (Adonis et al., 2013:34). The government should provide funding to strengthen cervical cancer screening services (WHO, 2013(b):14). Cervical cancer screening services are provided in all the clinics and some of the women are aware of that. In support of this, participant one said:

“...So I think most of the community members are aware that we do provide cervical cancer screening services. They are aware that we render cervical cancer screening services because we give health education about cervical cancer and the cervices cancer services provided.”

This was also confirmed by the quantitative responses to question 10: Is there cervical cancer screening services in this clinic. Findings revealed that more women knew that their clinics provide the service, that is, 396 = 79.2% as compared to 89 = 17.8% of women who did not know that irrespective of the quality of service rendered. PHCNs should strive to improve the provision of cervical cancer screening because poor quality of screening services is a barrier to utilization of cervical cancer screening services (Nyaberi & Buziba, 2011:135).

Regardless of cervical cancer screening being free and accessible to some communities, it is still difficult to achieve the set coverage of cervical cancer screening. This was confirmed in this study, Chapter 1 Table 1.1, titled the annual performance against national target from 2013-2014 annual performance plan for programme: disease prevention and control. Table 1.1 shows that the actual achievement of cervical cancer screening coverage was 55.5%. It showed a deviation of 9.5% from planned target to actual achievement for 2013/2014.

Comments and reasons for deviations given were that some women declined screening post-counselling. The strategy to overcome areas of underperformance was to create awareness to communities on the importance of screening. Women need to be aware of services provided in the clinics so that they can use the services. In Ghana it was found that women were unaware of local cervical cancer screening initiatives; hence, they were not utilizing them (Abotchie & Shorkar, 2010:415). This confirms that there is a dire need to develop strategies to promote utilization of cervical cancer screening services. Abdullahi et al. (2009:683) suggest that cervical cancer screening provision should be culture-sensitive in order to influence women to come for screening.

❖ **Opportunistic cervical cancer screening**

Findings reveal that opportunistic cervical cancer screening was done when the women attended antenatal, postnatal, well-baby or family-planning clinic. This is because, according to the guidelines, women are supposed to be screened for cervical cancer when they come for services in those clinics. According to the HBM, opportunistic screening encourages the woman to benefit from being screened at that time of family planning (Dennil et al., 1999:157). In support of that participant two indicated that:

“More young women are screened when they come for postnatal checkup or when they come for family planning. When a woman is to restart family planning, cervical cancer should be ruled out first and in between the usage of a family planning the woman should also be checked. So the woman is forced to be tested in order for her to get the family planning help. So this increases

the number of women who are screened.”

Most women are screened because the type of care that she needs necessitates that she be screened, for example, if a woman goes for family planning and postnatal clinic, screening is part of it (Ndlovu & Boshoff, 2013:106). Screening mothers at the clinic is effective and beneficiary because it covers mothers at child-bearing period, at the time when they are sexually active and more exposed to HPV infection and cervical cancer (Gierisch, Coeytaux & Urrutia, 2013:1931). Where a Pap smear is done as part of routine checking, women are compelled to be screened (Montaya, 2011:79).

❖ **Effective resource sharing approach**

The initial policy did not take HIV status into account, and there were few evidence-based guidelines for cervical cancer screening in women who are HIV-positive (Batra, Kuhn & Denny, 2010(b):9). SA’s cervical cancer burden severity is increased by the HIV epidemic. In HIV-infected women, the risk of developing HPV is 4-5 times greater than in the general population (Batra et al., 2010:9; Majumdar & Mazalen, 2010:14). The guidelines have included that cervical cancer screening is compulsory for all women who are HIV-positive as supported by Odale, Torpey, Khamofu, Odale, Adekulon, Chabikule, Mukuddas, Usman, Aiyenigba, Okoye, Odafekun & Chachabakuli (2013:180) who indicated that cervical cancer screening should be integrated with HIV care. This is confirmed by all the participants because they are aware of that clause in the guidelines and they are implementing it as such. Participant one said:

“The guidelines indicate that for every newly diagnosed HIV/AIDS-positive woman, cervical cancer screening should be done. The repeat for a HIV/AIDS-positive woman should be done more frequently, that is every two years, unlike with normal women where it should be repeated every 10 years unless if the patient experiences some problems”.

Participant four said:

“The guidelines guide us on how to provide cervical cancer screening services. It guides us that for normal Pap smear results the test should be repeated every 10 years and for every newly diagnosed HIV/AIDS woman it should be repeated every two years. This led to a utilization of a resource sharing approach service where patients get all these services once in the very clinic and at the same time.”

In addition to that, participant eight said:

“...Like for example, when it was changed that every woman who is HIV-positive should be screened for cervical cancer screening, the information was communicated to us and presently we are practicing that.”

HIV/AIDS, tuberculosis and cervical cancer screening are treated concurrently. All participants from participant one to fifteen, are practicing that in the clinic. They all indicated that all patients with TB are tested for HIV and those with TB and HIV are screened for cervical cancer. Participant one said:

“The guidelines indicate that for every newly diagnosed HIV/AIDS woman cervical cancer screening should be done.”

Participant fifteen said:

The repeats of HIV/AIDS woman should be done more frequently, that is every two years, unlike with normal women where it should be repeated every 10 years unless if the woman experiences some problems.”

Women living with HIV/AIDS are 4-5 times more likely to develop cancerous lesions on their cervix and experience the debilitating symptoms of cervical cancer more earlier (Moodley, 2009:11). The resource sharing method emanated from the findings which confirmed that HIV-positive women are four times more likely to develop abnormalities of the cervix which can lead to cervical cancer and that cervical cancer occurs up 10 years earlier in HIV-infected women than in women without HIV (Fishkin & Rosauer, 2012:1). At the same time, the resource sharing

method causes a barrier to an effective screening programme in developing countries because of the demands of competing health needs such as HIV infection, tuberculosis and other common diseases (Moodley, 2013:3).

According to the HBM, this confirm that the clinic is using the resource sharing method which is also a strategy specifically used to encourage utilization of cervical cancer screening services by all women, because it won't only cater for women with AIDS (Dennil et al., 1999:157). This strategy helps women who are already diagnosed with HIV/AIDS for continuity of care (Fishkin & Rosauer 2012:1). Adding on that treatment and surveillance guidelines for cervical intraepithelial neoplasia in HIV-positive women may need to be revised and new interventions developed to reduce incomplete treatment and patient default (Batra et al., 2010:9). Effective screening programmes in developing countries include the demands of competing health needs such as HIV infection, tuberculosis and other common diseases (Moodley, 2013:3).

❖ Vaccination of girls

The incidence of cervical cancer is decreasing in high-income countries due to vaccinations for HPV and regular screening, cancer deaths will continue if action is not taken (Ferlay et al., 2010:6). Most cases of cervical cancer are caused by infection with HPV, the most common sexually transmitted virus. HPV infections can cause creation of cervical precancerous lesions which can be detected before progressing into cancerous lesions (Ferlay et al., 2010:6). Vaccination of girls is still a new thing but 90 participants (18%) were aware that the government has introduced the service. This was confirmed by Moodley (2013:3) who indicated that prevention must be aimed at the primary prevention of cervical intraepithelial neoplasia through vaccination against HPV. The current available HPV vaccine is targeted against HPV which accounts for 90% of cervical cancer and genital warts (Iliyasu, Abubakar, Aliyu & Galadanci, 2010:30; Ntekim, 2011:9). Burton & Leoschut (2013:6) confirm the importance of vaccination and found that 4.7% of adolescence girls in their study were either sexually assaulted or raped. According to Zhanga, Panb, Wang, Yangb,

Gaoc, Wangd, Lie, Renf, Zhaoa & Qiaoa (2013:9), there is a low acceptability of HPV vaccination among parents of young adolescents in China.

Other countries have introduced male HPV vaccine programmes, but the coverage thereof is low in comparison with female coverage (Ryser, McGoff, Herzogb, Sivakoff & Myers, 2015:35). Economical resources are needed to promote HPV vaccination (Giambi, Del Manso, D’Ancona, De Mei, Giovannelli, Cattaneo, Possenti & Declich, 2015:6). In addition, supporters of vaccination and screening argue for enhanced investments on these interventions based on their relative cost-effectiveness (Farooqui & Zodpey, 2012:166). According to Stevens, Marions, Bomela & Nombulelo (2014:11), a challenge that confronts people from Limpopo is that young women are contracting cervical cancer possibly due to increased HIV prevalence.

The prevalence of HPV infection ranges from 10% to 46% in some countries. Younger women tend to have a higher rate of infection than older women and are more likely to be transiently infected with HPV as it is common with other STIs (Batra et al., 2010:9). The majority of HPV infections seem to be latent with no production of viral particles. However persistent infection is associated with a high copy number of DNA molecules, a high risk HPV-type a higher risk of malignant transformation and an older age group of women (WHO, 2010(b):5). The HPV vaccination is effective in preventing lesions caused by those HPVs. To date, two commercial vaccines have been developed to curb the diseases caused by the high risk and low risk HPV. However, similar to the problems of screening for cervical cancer, it remains a challenge to ensure that there will be sufficient dissemination of information about the vaccines to the community (Moodley, 2013:5). This is part of primary prevention of cervical cancer as prescribed by the cervical cancer screening services guidelines. Findings in this study reveal that all participants are aware of vaccination of school girls. Participant one confirmed this:

“School girls are being vaccinated against HPV virus as a way to reduce cervical cancer. This is said to be effective in preventing cervical cancer.”

In quantitative findings in response to question 4.2.21: Are you aware that there is a vaccine against cervical cancer that is given to girls at school? 345 participants = 69% were not aware of vaccination of girls, and 155 participants = 31% were aware. Research shows that vaccinated girls know very little about vaccination, HPV and cervical cancer (Sopracordevole et al., 2013:1933). This is also confirmed by a study conducted in Ghana where it was found that women were not aware of the link between HPV and cervical cancer (Abotchie & Shorkar, 2010:415). Giambi et al. (2015:6) indicated that the main factors that will increase HPV vaccination resources are influenced by increasing training of other professionals different from the usual personnel that are being trained to provide HPV vaccination.

❖ National Health Calendar used

In the National Health Calendar, different conditions or situations are allocated dates on which people are made aware of those conditions or situations. There are special dates, for example, 10-16 February 2016 was STI and Condom Week meaning that during that week the health workers will be making people aware of STI's and the use of condoms. On the 19th February it was a Healthy Lifestyle Awareness Day. The 7th April 2016 was World Healthy Day. During those dates different means are used to alert people about those conditions or situations on which the community is made aware of, for example, information is passed to the community through the media, there will be many people wearing awareness t-shirts, caps or symbols. Findings shows that cancer awareness days according to the National Health Calendar were used for cervical cancer awareness and screening by conducting cervical screening campaigns. In support of participant one, participant nine said:

“During cervical cancer screening awareness week we talk cervical cancer all the time, day in and out. Before and during the campaign we inform them about the campaign and the health educations we give is all about cervical cancer every day every time.”

In the 2016 National Health Calendar, cervical cancer awareness had the following dates, 2nd June

was the International Cancer Survivors Day, August the 1st -7th was CANSA Care Week and the 3rd-28th August was the HPV Vaccination Campaign Month. This information is written on the calendar of each year. Cervical cancer screening campaigns are conducted on those awareness dates. According to (WHO, 2010(b):9), cervical cancer screening campaign is recommended because of the high cervical cancer mortality worldwide.

❖ **Consistent provision of Health Education related to cervical cancer screening**

Health education empowers women with health-related information which enable them to take informed decisions related to their health. Language used during giving of health education to women promote accessibility to cervical cancer screening services. So, it is of importance to establish the language that is best understood by the women before health education is given in order to enhance a mutual communication and understanding of what the women need (White et al., 2011:11). The research findings reveal that individualized health education related to cervical cancer is given each time when a need arises during consultation. The constant health education is the one given to all the clients in the morning. Participant eleven said:

“Group health education is given in the morning before we start with consultation and during consultation we do give individual health education relevant to the patient’s health problem. We don’t give individual health education when one is not ill.”

Participant three said:

“Health education is given in the morning before we start with consultation and during consultation we do give health education when it is necessary. We don’t visit people at their homes to give them health education.”

When health education is given to an individual it will become productive catering for an individual’s needs for preventing an illness. An individual approach such as individual health education and individual invitations, is the key strategy to increase participation in cervical cancer

screening (Pavicic, 2012:2). According to Acera et al. (2014:8), when one contacts an individual women and agrees with her on the date for a screening visit, this will notably increase the woman's participation in the utilization of cervical cancer screening services. This is supported by Ramathuba (2013:3) who indicated that sex health education should promote understanding of sexuality and social factor which influence the behaviour of an individual. Language used during health education does form a barrier so it should be taken into consideration prior to giving health education (Abdullahi et al., 2009:682). WHO (2012) indicated that some of the organizations have already translated their educational material into multiple languages to ease understanding of the content.

Knowledge of an individual person about cervical cancer can affect the individual's understanding about it. The more one knows about cervical cancer screening, the more one will utilize the cervical cancer screening services. The women will learn about cervical cancer through getting health education from those who have the information. Though in most instances knowledge encourages utilization of services Ulasi, Ijoma, Onwubera, Arodiwe, Onodungo & Okafor (2011:4) identified that knowledge can also influence people not to utilize cervical cancer screening. Findings show that all the participants indicated that following health education many participants get screened. In support of this, participant three indicated that:

“What we have observed is that following a health education on cervical cancer a large number of women present for screening. There are more women who come voluntarily for screening immediate after a health education is given.”

It is not wise to be tested or treated without having knowledge of the test or treatment. Owoeye & Ibrahim (2013:8) indicated that there is a relationship between awareness and practice of cervical cancer screening. This statement contrasts with the study conducted by Ulasi et al. (2011:4) which indicated that an increase in awareness of Pap smear does not necessarily predict that all women will utilize cervical cancer screening services. The language that is best understood by the women

in need of care should used when communicating as that will enhance accessibility and utilization of cervical cancer screening services (White et al., 2011:11; Abdullahi, 2009:683). Information about cervical cancer is essential for the success of cervical cancer screening programmes (Abotchie & Shorkar, 2010:415).

❖ Awareness screening campaigns conducted

A campaign is a series of coordinated activities done within a given time in order to achieve a given objective (Wehmeier et al., 2010:139). In this study, it was found that cervical cancer screening campaigns are conducted with the objective of creating awareness among as many woman as possible. It is targeted mostly at areas which are far from the clinics or where there are no clinics. Routine screening helps detect precancerous lesions in women. There are known areas that are targeted at a time. Venues used are open areas, chiefs' kraals, schools or clinics. Preparation done include advertisement of the campaign through the clinics, patients who come to consult at the clinic as well as the radio, advertisement of the campaign during health education at the clinics, school children as well as the radio or chief gatherings. Findings show that when cervical cancer screening awareness campaigns are done, many women are reached indeed, but it will be those women who will be available at the time when that campaign is done and those that can reach the area where the campaign is done who are going to benefit. When campaigns are conducted, no other efforts are made to reach out to women who cannot access the target area where the service is offered. Participant five said:

“Yes! During cancer awareness we screen many women because that is the time when we will be concentrating on making the community aware and those who volunteer to be screened are done. We give a lot of health education about cervical cancer and encourage women to be done cervical cancer screening. So all the cervical screenings are done as they come.”

In response to quantitative approach question 4.23: Indicate the strategies you have seen being used by the government to encourage women to attend cervical cancer screening services?

participants who indicated that they saw the government using cervical cancer screening campaign as a strategy that is being used by to encourage women to attend cervical cancer screening services were 148 participants = 29.6%, health education 258 participants = 51.6%, using of cell phone reminders 1 participant = 2%, nurses visit them at their homes and about 19 participants = 18.0% were not aware of any strategy that is used by the government.

A cervical screening campaign is the most common method used to reach people who stay far from the clinics. Presently, campaigns are done in those areas where women should come for a Pap smear. Thus, women who do not go to the area will still remain unscreened, irrespective of the fact that the campaign was done. This is worse because of the fact that some of the areas in Vhembe District are mountainous, the villages are scattered along the mountain and there are many gravel roads some of which are not even user friendly as witnessed by the researcher. All the municipalities of Vhembe District, that is, Thulamela which is the largest, followed by Mutale, then Makhado and Musina the is smallest have a larger rural area which negatively affects the provision of cervical cancer screening services. This is supported by Natale-Pereira et al., (2011:3548) who perceive that staying in a rural area is a barrier to access to quality care. Despite the existence of a previous NHS (2012:143), implementation of the national screening programme is still low and haphazard. Cervical cancer screening occurs, but only in a few selected sites and in disjointed projects rather than a fully fledged national-level programme. This explains why screening coverage is still negligible. When cervical cancer screening awareness campaigns are done many women are reached indeed, but it will be those women who will be available at the time when that campaign is done and those that can reach the area where the campaign is done who are going to benefit. When campaigns are conducted there is no other means done to make women who cannot reach the area where the campaign is done to get the service.

4.5.4 Theme: 4. Outcomes After Cervical Cancer Screening

Table 4.8 present the outcomes following cervical cancer screening as found during dta collection.

Table 4.8: Outcomes after cervical cancer screening

Themes	Sub-Themes
4. Outcomes after cervical cancer screening	4.1 Results accessible to patients
	4.2 Cervical cancer screening results misinterpreted

The outcome of cervical cancer screening is the results of the test done which can either be negative or positive. If positive, it will also reveal the stage of cervical cancer which will help in determining whether or not it is curable. When cervical cancer is at its early stage it is curable when treated by chemotherapy, radiation and surgery, but if it is at an advanced stage it can no longer be treated, only palliative treatment is given (Lewis et al., 2007:1400). According to the HBM, if a women perceives that she is benefiting from the outcome after cervical screening she will go for screening, meaning that it will have changed her behaviour (Dennil et al., 1999:157).

4.5.4.1 Sub-Theme 4.1: Results Accessible to Patients

After taking a Pap smear the laboratory officers do come to the clinic to collect the specimen. They usually take three weeks before they bring the results back to the clinic where the results will be accessible to the woman. Some women fail to follow-up their results after three weeks, because of ignoring the seriousness of a follow-up or they are no longer feeling the symptoms that they presented with and this discourages continuity of care. Findings show that each time after screening a woman a follow-up process is outlined in order not to loose contact with her when the need arises. When the woman comes for a follow-up the woman will wait in que like any other patient and she will contact the PHCNs when it is her turn to do so. This is because they are using supermarket approach at the clinics. It discourages the women to come back for a follow-up again if the woman takes such a long time for collecting the results. Participant one said:

“I then ask the women information that I must use to contact her for follow-ups, that includes her cell number, physical address description, neighbour, child’s name and the local school that s/he or attend, the home-based carer who serves them and whatever can be of help...I tell the women to come for the

results after two weeks. If she does not come I make follow-ups using the information that she gave me.”

Participant eight said:

“After doing a Pap smear, we advise the woman to come back after three weeks because usually the results will be back at that time.”

Participant three and eight said:

“Some women do not come back to check for the results and when they are followed up, some are immediately found at their residential area; some are not found because they will have gone to where they are working or staying or gone to seek for treatment elsewhere since they are feeling some symptoms. So we end up not being able to get them.”

Failure to come back to the clinic for collecting the results was supported by Vasconcelos, Pinheiro, Castelo, de Queiroz Costa & de Oliveira (2011:99) who indicated that women do not bother to either go for a Pap smear and those who have done a Pap smear, do not make follow-ups and this breaks the continuity of care. This results in unnecessary tracing of the woman, lack of continuity of care, progression of cancer and death due to cancer. Montoya (2011:78) identified that there is poor repeat of a Pap smear because the women do not avail themselves. Poor access to services may make women to appear inconsistent in their choices for utilizing cervical cancer screening services (Matejic et al., 2010:28). In most instances women do not go for the results because of fear of a negative outcome of the results (Lim & Oja, 2016:10). According to Webb et al. (2010:1890), the HBM suggests that low benefits from a service discourage people from utilizing that health service; so, if getting the results will cause more harm than good, the women will not go collect the results.

4.5.4.2 Sub-Theme 4.2: Cervical Cancer Screening Results Misinterpreted

Misinterpretation of a situation usually mislead an individual making that individual to do things wrongly. Misinterpretation of cervical cancer, cervical cancer screening and the results thereof

influence a woman's use of cervical cancer screening services (Montoya, 2011:80). McCarey et al. (2011:3), in their studies, identified misconception caused by lack of awareness. Findings in this research indicate that women who visit the clinic in order to be screened for health reasons are very few, they mostly come being ill. This behaviour might be influenced by misinterpretation of the results which discourage them to utilize cervical cancer screening services. Ntekim (2011:24) also confirmed that some women who do not have anything that deny them access to cervical cancer screening services do not get themselves screened due to wrong beliefs about cervical cancer, screening and results. Participant three indicated that:

“In most instances I mostly do Pap smears on women who are presenting with symptoms related to cervical cancer. Those who come for health reasons in order to know their status are very few. The number of those who come for cervical cancer screening in order to know their status increases when there is a campaign.”

Participants eight added by saying:

“We diagnose cancer on their visits when they are ill, complaining about pain, vaginal discharges or bleeding.”

There are few people who visit the health care provider for checking of their health status. Many people visit the health provider when they experience a health problem and also when that health problem is now severe. This is supported by the quantitative findings which revealed in question 4.4.6: What was the reason for doing a Pap smear? participants who were done Pap smear due to illness were 101 = 20.2% which is high as speculated by quantitative result, 92 participants = 18.4%, those who came following cervical cancer screening campaign and 59 participants = 11,8% who came voluntarily may have been referring to even coming for postnatal clinic or family planning. Many participants, that is, 248 participants = 49.6% did not respond to this question and this could be because they were never screened before.

The receipt of an abnormal result causes high levels of distress owing to limited understanding of

what a Pap smear is all about (Owoeye & Ibrahim, 2013:50). Lack of symptoms of cervical cancer is a barrier to women utilizing cervical cancer screening services (Kim et al., 2013:3). Women are commonly tested when they are motivated by something, either presence of symptoms or following a cervical cancer screening campaign or health education. Campaigns and health education turn out to make them volunteer to be screened. Some women presented for cervical screening because of concerns about the reproductive health, like some go for screening to be reassured of their future ability to bear children (White et al., 2011:22).

Loss of fertility has been cited as a major concern among African women. Therefore, some women sought cervical screening to be reassured about future pregnancies (White et al., 2011:22). Absence of information and symptoms make women to relax, they don't usually go for screening. This behaviour is influenced by lack of symptoms or lack of information about cervical cancer and the screening services. According to Kim et al. (2013:3), women's perspectives or misconceptions about cervical cancer screening is a barrier for utilization of cervical cancer screening. In some instances the decision to undergo cervical screening is largely influenced by spouses, friends, and 'role models' women who had already undergone screening (White et al., 2011:22). That is why most patients in developing countries present in advanced stages when the symptoms of abnormal vaginal bleeding or an offensive vagina discharge become unbearable (Moodley, 2013:3). At this stage cervical cancer is no longer curable. There are common misconceptions about cervical cancer among women in SA and Kenya; they often think that a positive screening test means that they have HIV infection (Ntekim, 2011:26). The barriers to an effective screening programme in developing countries include misconception due to lack of awareness of the disease and the role of screening (Moodley, 2012:3; Owoeye & Ibrahim, 2013:6; Natale-Pereira et al., 2011:3544).

4.5.5 Theme 5: Suggestions Related to Strategies to Promote Utilization of Cervical Cancer Screening

Table 4.9 presents suggestions related to strategies that can be used to promote utilization of cervical cancer screening.

Table 4.9: Suggestions related to strategies to promote utilization of cervical cancer screening

Themes	Sub-Themes
5. Suggestions related to strategies to promote utilization of cervical cancer screening	5.1 Uncertainties on how the cervical cancer screening can reach communities
	5.2 Home visits seen as an option to reach out to communities
	5.3 Consistent provision of Health Education
	5.4 Provision of mobile services to communities
	5.5 Suggested duration for the repeat of cervical cancer screening

The participants were given a chance to come up with suggestions that can help in encouraging the utilization of cervical cancer screening services. Findings in this research regarding suggestions were related to improving communication so that the information can reach as many women as possible, motivating the community to be screened, improving means of screening services to reach the community and reducing the frequency of doing Pap smears. Suggestions from women may have a positive impact in influencing women to follow them because, according to the HBM, their suggestions are influenced by their own perceptions (Dennil, 1999:157).

Findings in quantitative approach question 4.2.31 shows that 387 participants = 77.4% did not suggest anything related to strategies that can be used to encourage women to participate in cervical cancer screening. Many participants did not respond to this question and this shows they have little interest or knowledge related to the Pap smear. However, a number participants, that was 113 participants = 22.6%, suggested as follows, screening should be compulsory 1 participant = 0.8%, women should be threatened to be screened 1 participants = 0.8% and that women should be encouraged 1 participant = 0.8%, the rest of the suggestions are discussed below separately.

Cervical cancer screening is not supposed to be compulsory, women should attend cervical cancer screening based on their knowledge about cervical cancer, they have to understand the disease. Patient and individual rights include the rights to choose the treatment of choice, to decide on the type of care received and also to express concern for the treatment received, including cervical cancer screening (HPCSA, 2015:2).

4.5.5.1 Sub-Theme 5.1 Uncertainties on How Cervical Cancer Screening Can Reach Communities

Irrespective of the fact that cervical cancer screening services are provided in all the clinics there are still women who were never screened. This shows that there is a need of making women interested in utilizing those services. The present state of affairs suggest that provision of cervical cancer screening services should occur in closer proximity to where the woman stays. If the service is brought closer to the woman it will give the woman no excuse to refuse the Pap smear. This will make more women to be screened. Findings of this research revealed that hardly anything is done to reach women who cannot go to the area where cervical cancer screening services are provided, hence they are not screened. Participant one said:

“I think if they cannot reach us at the clinic for the services provided, then we need to take the service to them, but I don’t know how exactly we can do that because we serve a large area with many households. I don’t think it will be possible for us to do door-to-door cervical screenings, proposals or health education. I don’t know, maybe the present mobile health services can extend its services to door-to-door services. Oh! I don’t know.”

Participant one also emphasized:

“Yes, maybe it will work because it is not everybody that uses the clinic for health services and healthy women do not come to the clinic for health advice or checking. They need motivation enough to can make them part with money for transport and come to the clinic for screening while they are not ill. Visiting them at their home will give them no reason to refuse to be screened. They will also see that the government is caring for them. After all the repeats will be done after a long time (Kept quiet for sometime and said: this a sign of digesting the idea or listening to oneself) No! This can work (making a fist and moving her hand forward and backwards: this is a sign indicating what has been said is exciting, true, powerful and it will work).”

Vhembe District is a large area with a large women population as detailed in Chapter 1. It might be difficult or impossible to cover it with door-to-door services using the available resources. It

will need an increase of the present resources. Findings reveal that cervical cancer screening is not performed on new employees in most working places as confirmed by the quantitative findings. In the quantitative approach, participants responded to question 4.4.8: If you said you are employed, is it mandatory for all the staff members at your working place to have cervical cancer screening? the number of employed women who indicated that it is not mandatory for newly employed employees in their working area to be screened for cervical cancer were more, that is, 149 = 29.8% than those who indicated that it is mandatory, which is 92 = 18.4%.

The rest of the participant, that is, 259 = 51.8% did not respond as many of them are unemployed. Though women who are unemployed are many as revealed by their responses in the quantitative approach question 4.2.3: unemployed participants = 262 = 52.4%, employed 131 participants = 26.2% and self-employed 104 participants = 20.8%. Pre-employment cervical cancer screening is an opportunity that can be used to reach employed women. Suggestions to encourage women to come for screening is by giving them something after being screened. They suggested that they can be given either a cap 2 participants = 0.4%, T-shirt 3 participants = 0.6%, flag 3 participants = 0.6%.

Offering door-to-door cervical cancer screening services will be of help to reach many women who cannot reach the campaigns when they are brought nearer to their area. Door-to-door services will be accommodating the patient's rights to access the health services as stated by the HPCSA (2015:1). Community clinics and organizations employ promotoras and community outreach workers to increase awareness about the importance of early cancer detection. Promoters are members of the community they serve, who speak the same language, they provide education, advocacy and outreach to other members of the community (Rhodes, Foley, Zometa & Bloom, 2007:420).

4.5.5.2 Sub-Theme 5.2: Home Visits Seen as an Option to Reach Out to Communities

Home visits bring the services to where people stay, it challenges the person and it gives her no

choice, but to accept the services provided. Home visits have been used in different situations to reach as many people as possible. Prior elections, members of different political organizations are seen visiting the community at their homes, telling people about the election procedure and recruiting them to vote for their organization. During census, officers do home visits counting people and they are able to estimate the statistics of the population. Home visits is also used by business people, they visit the community at their homes selling goods and that is effective. Findings in this research study show that there are no cervical cancer screening services that are provided to women at their homes. Women have to go to the area where the health services are offered, either at the clinic or at a mobile area. Participant three said:

“Health education is given in the morning before we start with consultation and during consultation we do give health education when it is necessary. We don’t visit people at their homes to give them health education or screening.”

Quantitative research revealed that there were very few women who were aware that the government is using home visits by nurses as a strategy to take the services to the community. In response to question 4.4.23: Indicate the strategies that you have seen being used by the government to encourage women to attend cervical cancer screening services? There were just 3 participants = 0.2% according to quantitative approach response to question 4.4.23 who were aware that home visits are being done. They saw it being effective that is why 10 participants = 2% were suggesting that home visits be used to bring the services to the community. Quantitative approach findings reveal that there are community groups available in the community that can be used to access women. The response to question 4.4.11 reflects that 5 participants = 1% were aware of cancer groups, 283 participants = 56.6% were aware of village or block groups, 140 participants = 28% were aware of stockvel groups, 54 participants = 10.8% were aware of football club groups and only 18 participants = 3.6% were not aware of the groups available in their community.

That is the reason why in quantitative approach in response to question 4.4.24 there were 6

participants = 1.2% who suggested that groups be used to reach women. In addition, the following suggestions were given to follow the women where they are, use of community workers 6 participants = 1.2%, community civic organizations 1 participant = 0.8%, chiefs 1 participant = 0.8%, provide 24 hours screening services 1 participant = 0.8%.

The outreach screening services help access to people who stay far away from the clinic. Outreach services expand the knowledge, awareness and early detection of cervical cancer (WHO, 2013(a):16). Health education can be given in different places, following them door-to-door or using different community special groups meetings in order to extend outreach services (Ntekim, 2011:28).

4.5.5.3 Sub-Theme 5.3: Consistent Provision of Health Education

Health education needs to be provided to empower the community about healthy issues. Topics that cover healthy lifestyle choices include creating environments that help individuals in making healthy choices. Topics such as women should never start smoking and that if they are already smoking they are to stop smoking because there is evidence that female smokers are more susceptible to cervical cancer than female non-smokers, the use of barrier methods during intercourse encouraged to prevent the spread of the HPV, effective treatment of STIs and starting to be sexually active at an older age (NHS, 2012:2). Findings reveal that there is a constant provision of health education everyday in the morning before patient consultations start and when a patient is presenting with an ill health that health education is provided. This health education is given on different topics according to the drawn programme, including healthy lifestyles. Participant two said:

“Individualized health education is given only when the need arise depending on the patient’s health problem. So we don’t routinely give individual health education to a healthy patient...”

Participant six generalized the topics taught when she said:

“Health education is given routinely on any topic which covers health-related matters. The topics cover the promotion, prevention, treatment and rehabilitation aspects of health, so cervical cancer is also included.”

The findings from the quantitative approach showed that many women heard about cancer at the clinic. When responding to question 4.4.16: Where have you heard about cancer? those who heard from the radio were 142 = 28.4%, television 28 = 5.6%, clinic 200 = 40%, church 33 = 6.6% and 97 = 19.4% did not respond because it is either that they have never heard about cancer or they did not hear it from the sources indicated in the questionnaire.

Quantitative approach findings revealed again that women are aware of health education that are being given as a way of the government to inform the community about health matters. In response to question 4.2.30: Indicate the strategies that you have seen being used by the government to encourage women to attend cervical cancer screening services? there were 258 participants = 51.6% who were aware that health education was given as government’s way of reaching out to the community.

Participants suggested various strategies that can be used to reach the community. In response to question 4.4.24 in quantitative approach, participants suggested the following: teaching was suggested by 26 participants = 5.2%, magazines 4 participants = 0.5%, posters 2 participants = 0.4%, pamphlets 7 participants = 1.4%, radio 1 participant = 0.8%, cell phone 2 participants = 0.4%, letters 1 participants = 0.8%.

There is an urgent need for different educational and organizational strategies to be used in order to improve the reproductive health of women (Matejic et al., 2010:28). This will help in providing health education to healthy individuals for prevention and promotion of health. The strategy will help inclusion of the topics that are in the guidelines. Accessibility of screening services, including giving health education, could be improved through planning and implementation of screening programmes involving community leaders and culturally appropriate messages (Mupepi et al.,

2011:945).

4.5.5.4 Sub-Theme 5.4: Provision of Mobile Services to Communities

Mobile services bring the services nearer to where the community is. It serves areas which are remote from the clinic with services that are provided at the clinic. The community is aware of those areas which are used, dates, times when those mobile clinics come and also the types of services rendered. Provision of cervical cancer screening services are done through mobile clinics and campaigns to try and reach people who stay away from the clinic. Participant three said:

“Yes. We treat patients who come to the clinic, but there is a mobile clinic which also reach those that cannot arrive at the clinic to consult.”

Participant one said:

“Yes...There is a team which do outreach services. They are the ones who will go out to the villages and provide cervical cancer screening.”

Participant one said:

“Cervical cancer screening campaign is done once after some time...maybe once after two years (Counting her fingers: This is a sign of confirming what is being said verbally).”

Participant fifteen said:

“The campaigns are not done more frequently in one area because the area to be covered is large.”

Quantitative research revealed that the women are aware of cervical cancer screening campaigns used by the government. In response to question 4.4.23: Indicate the strategies that you have seen being used by the government to encourage women to attend cervical cancer screening services? 148 participants = 29.6% were aware that cervical campaigns are being done.

Quantitative responses to question 4.4.24 indicated that 7 = 1.4% suggested that campaigns be used to provide screening services.

Findings reveal that provision of cervical cancer screening services are done through campaigns, but it takes time for campaigns to be repeated in the same area. These long intervals between campaigns affect the effectiveness of the campaign since some women will end up not utilizing the services. There is a need to screen women frequently and cover a sufficient percentage of the women population in order to make any significant impact on the reduction in the prevalence of cervical cancer (Moodley, 2013:3). Adding to that, difficulties in accessing the areas where health services are provided may make women to appear inconsistent in their choices for utilizing cervical cancer screening services (Matejic et al., 2010:28).

❖ **Negative impact of Supermarket Model for provision of PHC services**

The Supermarket Model is interchangeably understood as Integrated PHC, Comprehensive Health Care or One Stop Health Care. The model was aimed at increasing the utilization of health services, including cervical cancer screening (Sibiya & Gwele, 2013:387). It advances health equity and promotes human and national development programmes as all patients with different diseases are treated as they come on any day and time (Sibiya & Gwele, 2013:387). Findings confirm that in all the clinics all PHCNs use the Supermarket Model when providing the health services; this means that they no longer have special days or times for specific illnesses. Patients are provided with a particular service according to the need as they consult. Participant two indicated that in this way:

“Patients come to the clinic with different health problems every day and every time, that is the Supermarket Model. We provide patients with a specific health care service as the need arises during consultation, women who come for screening they will be among other patients and they will be screened as they consult. Cervical cancer screening services here are provided on a daily basis as the need arises, like I said. As the woman consult if there are problems that

warrant cervical cancer screening we provide that.”

This gives women broader chances of using one visit for all their health problems. It also becomes advantageous that people may not even be able to connect a woman with a particular illness and this makes them to feel that their illness is a secret. This model of provision of health services increased the workload of the health workers though it is good in meeting all the health needs of the patient at one visit (SALC Report, 2012:10). According to Tathiah et al. (2013:118), there is an increased burden of diseases that is adding on the already increased workload. It was going to make the PHC to work easier if the PHCN was treating similar diseases at the same day unlike treating one patient doing certain procedures and when another patient comes she needs different treatment and procedures all together. The researcher suggests that this method be done away with as it does not promote the smooth running of provision of health services.

4.5.5.5 Sub-Theme 5.5: Suggested Duration for the Repeat of Cervical Cancer Screening

In the guideline the Pap smears are to be repeated after every 10 years. All participants verbalized that in all the clinics once a woman is done a Pap smear and the results thereof is normal, it will be done again after 10 years as indicated in the guideline. Participant one was concerned that the 10-year interval was too long and that problems emanate from this long interval between screenings. Participant articulated this from her experience:

“This 10 years period inbetween the cervical cancer screenings is rather too long and it is like it is contributing to women coming for consultation late. The lesion develops and the woman does not come for consultation because in her mind it is like she will never have cancer within that 10 years. I have witnessed about 3 patients who were done cervical cancer screening and had cervical cancer within the 10 years. When they were asked why they didn’t consult earlier, all of them said they did not relate it to cervical cancer because they were still within the 10 years. It was like they thought that it won’t be possible for them to have cervical cancer. I would propose that the period be reduced to at least 5 years.”

The findings from quantitative approach question 4.4.13 showed that some participants are aware of the 10 years frequency between Pap smears. The guideline indicate that screening interval of at least 10 years apart provided Pap smears provided the results are negative (Sherris et al., 2014:78). So the participant is proposing that the duration period of 10 years between the Pap smears be reduced to 5 years. WHO (2013(b):16) support that the frequency of 10 years period need to be reduced. Kulasingam, Havrileski, Ghebre & Myers (2011:3) analyzed the possibility of the cytology test to be done every 3 years before the age of 30 years and thereafter it should be every 5 years after the age of 30 years.

4.6 Summary

The main theme, that is, perceptions regarding the provision and utilization of cervical cancer screening services showed that cervical cancer screening services were not utilized sufficiently by women because they were not aware of cervical cancer. The first theme, which is, conceptualization of cervical cancer screening services provided is in relation to the woman's beliefs about what cancer is and this belief will encourage her utilization of cervical cancer screening. Sub-themes revealed that though there are still challenges with the implementation of the cervical screening guidelines, at least all the clinics in Vhembe district have guidelines to promote the implementation of cervical screening services. National Health Calendar dates were used to collectively provide same services at a given period. The PHCNs are the ones coordinating patient health care services with other multidisciplinary health team members at clinics of other health institutions. Electronic record keeping methods were seen lacking as all the clinics were still using the paper-based methods of record keeping which is inadequate with regard to providing continuity of patient care. Though in most instances knowledge encourages utilization of services it can also influence people not to utilize cervical cancer screening.

The second theme developed was that the attitude of women towards cervical cancer and cervical cancer screening make up their believe system and it can either encourage or discourage women. These theme had six sub-themes. The attitudes developed and practiced from what people see on

television or internet them may affect their health positively or negatively. Attitudes relate to lack of money for paying transport and geographical factors such as poor gravel roads and mountains. Some women feel uncomfortable when they are to be screened by male PHCNs and this discourages them to present for screening. Lack knowledge about risk factors related to cervical cancer put women at risk of cervical cancer. Men lack knowledge of cervical cancer screening services that are provided because they are usually not involved in female reproductive health education and these lead to failure to support women.

The third theme is cervical cancer screening services provided. Cervical cancer screening services are provided at each clinic during the day only by PHCNs trained to take a Pap smear. Constant health education is given to all the clients everyday in the morning, individualized health education related to cervical cancer is given each time when a need arise during consultation. Cervical screening campaign is the most common method used to reach people who stay far from the clinics. When cervical cancer screening awareness campaigns are done, many women are reached and screened. Provision of information through different channels or media, telephone, basic items that are used on daily basis, community groups and other multiple sources of communication can be used to reach as many women as possible. Home-based carers may be used for information dissemination related to cervical cancer screening as they work with families on a daily basis. A period of 10 years between the Pap smears was regarded as being too long by some women and a proposal has been made that this period be shortened to 5 years. There is shortage of human and material resources that negatively impact on provision of cervical cancer screening services. Most women are screened when they come to the clinic for family planning, postnatal care or consultation. The use of the resource sharing approach that make it compulsory for all women who are HIV-positive to be screened provides them with the opportunity to be screened. Vaccination of girls prevent them from having cervical cancer.

The fourth theme relates the outcomes after cervical cancer screening. Findings indicate that the results are usually accessible to patients 3 weeks after a Pap smear has been done. It was also found

that there is misconception about these results which is associated with lack of awareness of cancer and the role of screening. Some women have misconceptions about the symptoms of cervical cancer such as abnormal vaginal bleeding or offensive vagina discharge; they also think that a positive screening test means means that one is HIV-positive.

The fifth theme is concerned with suggestions to increase the utilization of cervical cancer screening services. Women suggested that they should be encouraged to be screened. Cervical cancer screening should be compulsory. Findings of this research revealed that there is no cervical cancer screening services that are provided at the women's home and that cervical cancer screening is not done on new employees in most workplaces. Findings reveal that there is a constant provision of health education every morning before starting with consultations. Provision of mobile services to communities are used to bring the services nearer to where the community is and the community is aware of the services provided, areas used, dates and times. Suggestions were made that the 10-year duration for the repeat of cervical cancer screening be reduced. Findings reveal that provision of cervical cancer screening services are done through campaigns, but it takes time for that campaigns to be repeated in an area. The key factor in influencing a change in behaviour, which in this study is the utilization of cervical cancer screening services, is the way an individual perceives the situation (Dennil, 1999:157).

CHAPTER 5

DEVELOPMENT OF INTERVENTION STRATEGIES

5.1 Introduction

This chapter encompasses the strategies developed to enhance women's utilization of cervical cancer screening services. Chapter 4 covered the main theme which emerged from qualitative data analysis, that is, perceptions regarding the provision and utilization of cervical cancer screening services and five themes, namely, conceptualization of cervical cancer screening services provided, attitudes and practices of women, cervical cancer screening services provided, outcomes after cervical cancer screening, and suggestions related to promoting the utilization of cervical cancer screening services. Sub-themes for each theme were also developed. The main strategic objective of cervical cancer screening services in Vhembe District is to accelerate disease prevention and control, create awareness about the importance of screening, increase access to health care services, provision and maintenance of medical equipment, recruitment and retention of health professionals and support staff and appropriate human resource management (Limpopo Province DoH Annual Report Vote 7, 2013:405). These objectives are broad with no limitations, i.e., any strategy that can be implemented to enhance the utilization of cervical cancer screening services will be acceptable. So, this research will also contribute additional strategies that can be used to promote utilization by women of the available cervical cancer screening services.

5.2 Analysis Approach Used

This chapter deals with the development of strategies that can be used to promote utilization of cervical cancer screening services at Vhembe District in Limpopo Province. The SWOT analysis approach used to identify the strengths, weaknesses, opportunities and threats that are presently affecting the promotion of utilization of cervical cancer screening services by women in Vhembe District is presented in Table 5.1 below.

Table 5.1: SWOT analysis

HELPFUL To achieve the objective, they can be manipulated	HARMFUL To achieve the objective, they should be overcome		
STRENGTHS	WEAKNESSES	Internal factors	<ul style="list-style-type: none"> • Human resources • Competence • Financial costs • Services
OPPORTUNITIES	THREATS	External factors	<ul style="list-style-type: none"> • Political • Economical • Socio-cultural • Technological • Laws • Environmental

SWOT is a strategic planning tool used to evaluate and manage internal and external factors that affect the provision of cervical cancer screening services at the clinic level (Chen & Bruniski, 2007:3; www.hdbusinessstoolbox.com). This is about viewing identified strengths and opportunities as resources that can be used to work towards overcoming identified weaknesses and threats, rather than relying on them as sufficient in themselves (Bunn & Conlin, 2013:20). SWOT is very useful in directing attention to the internal and external factors that can influence provision of services positively or negatively (Bunn & Conlin, 2013:20).

Those are the factors that are found within the provision of cervical cancer screening services itself which assist the organization to achieve its objective or they fail it to achieve its goals. They affect the way the service is provided either negatively or positively in a form of strengths and weakness (Chen & Bruniski, 2007:7). Strengths and weakness are internal factors. Strengths are attributes that are helpful for the organization to achieve its goals, whereas the weaknesses are attributes that are harmful to the organization to achieve its goals (Chen & Bruniski, 2007:7). Internal factors can be manipulated.

Human resources refer to the personnel of an institution who are regarded as a significant asset in terms of skills and abilities (Wehmeier et al., 2010:1244). Within the context of this study, it means that PHCNs rendering cervical cancer screening services should be able to take a Pap smear and the number of PHCNs on duty should be able to cater for the number of patients consulting per day. At least one PHCN should be allocated per day for attending to mothers who come for cervical cancer screening services—unlike what is done presently where that PHCN is supposed to attend to all the clients as they come to the clinic.

If the PHCN is allocated to provide the cervical cancer screening services only she/he will be able to provide these services without being disturbed by having to do other activities. she/he will be concentrating on the cervical cancer screening services duties such as doing consultations, Pap smears, analyzing Pap smear results, referring women, giving health education, counselling, giving medications, doing follow-ups, conducting campaigns, honouring the year calendar events and record keeping.

Internal factors also include financial costs which is related to the policies and procedures adopted by an institution for financial control. It is the way financial control is done for rendering cervical cancer screening services like buying and maintaining equipment, providing salaries for service providers, providing a structure where those services are will be rendered, etc. Capabilities/competences are regarded as internal factors in the the quality of the ability to perform an activity in a professional way. It is the measure of the proficiency of a PHCN to perform a Pap smear and to render the cervical cancer screening services.

Lastly, in the internal factors, there is a service, which is an action of helping someone. In other words, it is the action of doing a Pap smear on a woman helping to identify cervical cancer earlier. The following are the strengths that emerged from the research findings. These internal factors will be discussed focusing on human resources, financial costs, competence and product/services as presented in Figure 5.1. below.



Figure 5.1: Internal factors: Strengths of cervical cancer screening services

5.2.1 Internal Factors: Strengths

5.2.1.1 Human Resources

Findings of this study showed that there is an effective resource sharing approach where various services are combined and one area is used. There are specific personnel, enrolled nurses, who can be used in the provision of HPV vaccination to relieve shortage of human resources for provision of HPV, implementation of the immunization programme and provision of cervical cancer screening services.

5.2.1.2 Competences

Findings of this study showed that at least one PHCN who have been trained to take Pap smears is allocated at each clinic. The workload on the shoulders of this PHCN is too much and it delays the provision of effective and quality cervical cancer screening services. The available staff does not meet the demands of the community they serve. This situation will cause other patients to leave the clinic without waiting for their turn to consult. A Pap smear training course is available locally and PHCNs are trained locally. All these, according to the HBM, will make the environment conducive for provision of cervical cancer screening services (Morris et al., 2012:2).

5.2.1.3 Financial Costs

Findings revealed that health services are provided free to all women who avail themselves of the services. Some of the community members stay next to the clinic so they walk to the clinic, they don't pay for transport.

5.2.1.4 Services

5.2.1.4.1 Accessibility

Cervical cancer screening campaigns are conducted and though they do not reach all women, they may reach many women at a time. Moreover, the availability of information and access to screening resources do facilitate women's adherence to screening guidelines, according to the HBM (Burke et al, 2009).

5.2.1.4.2 Acceptability

Availability of females PHCNs which will make it possible for female nurses to give care to female patients which will prevent a discomfort in women being handled by male PHCHs. Vaccination of girls who are 12 years as a way of building their immune system against HPV.

5.2.1.4.3 Availability

It was found that all the available clinics are providing cervical screening services. Cervical cancer services are provided as the patient consult at the clinic. At times, clinics experience a shortage of equipment to be used for cervical cancer screening.

5.2.1.4.4 Affordability

It was found in this study that cervical cancer screening is free at public health institutions, yet women are reluctant to go for cervical cancer screening. Some women have to pay for transport when they go to the clinic because they stay far from the clinic.

5.2.2 Internal Factors: Weaknesses

The following are the weaknesses that emerged from findings. These internal factors will be discussed focusing on human resources, financial costs, competence and product/services as presented in Figure 5.2 below.



Figure 5.2: Internal factors: Weaknesses of cervical cancer screening services

5.2.2.1 Human Resources

In this study it was found that the capacity of PHCNs in provision of cervical cancer screening services is insufficient because the PHCNs who have undergone training in taking Pap smears are also providing other services. This increases their workload and affects their ability to provide cervical cancer screening services which, according to the HBM, negatively impact the environment where services are provided (Morris et al., 2012:2).

5.2.2.2 Competences

In this study it was found that there is insufficiently trained PHCNs to do Pap smear resulting in bottlenecks since untrained PHCNs cannot relieve the workload of trained PHCNs who do Pap smears because they have to do all the work within the scope of PHCNs and also do Pap smears. This reduces their productivity in doing Pap smears which, according to the HBM, may impinge on the environment where cervical cancer screening services are provided (Morris et al., 2012:2).

5.2.2.3 Financial Costs

Findings in this study reveal that there is limited financial support for cervical screening from the women's partners. There are no specific standard of work set as a challenge for the PHCN's performance, for example, giving a set amount of money as appreciation to the worker who archived the set standard in order to motivate those workers to work harder in order to be appreciated. According to the HBM, lack of financial motivation will affect the practicality of the provision of cervical cancer screening services by PHCNs (Morris et al., 2012:2).

5.2.2.4 Services

5.2.2.4.1 Accessibility

It was found that not all women who stay close to the clinic use the health services provide. Some women stay more than 5 km away from the clinic, making them reluctant to go to the clinic. This creates a barrier for utilization of cervical cancer screening services. According to the HBM, this affects the practicality of the provision of cervical cancer screening services by the PHCNs (Morris et al., 2012:2).

5.2.2.4.2 Acceptability

In this research it was found that the Supermarket Model used in the clinics for provision of PHC services causes women who come only for Pap smear to cue for a long time awaiting for their turn to enter the cubicle for consultation. The long periods stayed at the clinic waiting for a Pap smear forms a barrier in the utilization of services. It was found in this study that health records are kept by individual patients only and this, according to the HBM, forms a barrier because it interferes with continuity of care (Morris et al., 2012:2).

5.2.2.4.3 Availability

It was found that cancer screening services are offered during the day only. This favours those women who get time during the day. Provision of cervical screening services do not benefit all women since women who can go for these services at night are not catered for. As such, the HBM regards these times of provision of services a barrier.

The study found that there is inefficient use of available technology that can be used at the clinic to communicate with patients. At some clinics cell phones are not used efficiently. Allocation of PHCNs to see to all types of clients coming to the clinic forms a communication barrier which, according to the HBM, limits the follow-up process (Morris et al., 2012:2).

5.2.2.4.4 Affordability

It was found that there are limited opportunities for individualized health education to healthy women since health education is provided mostly in the mornings before starting with consultations. This restricts direct individualized education. Hence, according to the HBM, it forms a barrier in communicating individualized care. Screening campaigns are targeted to specific areas resulting in exclusion of those who cannot reach the area. This situation, according to the HBM, is a barrier because it limits the provision of the service to all women (Morris et al., 2012:2).

5.2.3 External Factors

External factors are the dynamics that occur outside the provision of cervical cancer screening services itself. They affect the way the service is provided from outside in the form of opportunities and threats (Chen & Bruniski, 2007:7). Opportunities are external attributes that are helpful to organize cervical cancer screening services to achieve desired goals. Threats are external attributes that are harmful to the provision of cervical cancer screening services to achieving its goals (Chen & Bruniski, 2007:7).

5.2.3.1 External Factors: Opportunities

The PESTLE identified in the opportunities available in the present way of provision of cervical cancer screening services are listed below. In this study, the PESTLE approach was used looking at the external factors which are the opportunities. The following are the opportunities that emerged from findings. These external factors: opportunities will be discussed focusing on PESTLE.

5.2.3.1.1 Political Factors

Findings in this study showed that the political will exists to start and maintain a health service system which brings all the different health services closer to the community in order to meet the strategic planning objective of accessibility of health facilities to everyone. Most of the health services which are rendered at the hospitals are now also rendered at the clinics. Patients are no

longer transferred from the clinic to the hospital for collection of medication for chronic illnesses, consulting the doctor, the social worker, psychologist, dietician and so on because those health workers are allocated at the clinic. All the clinics use the resource sharing approach where services for HIV/AIDS, TB and cervical cancer services are rendered. According to the HBM, accessibility of health services in one area and resource sharing make the health service environment operational and usable (Morris et al., 2012:2). These external factors: opportunities is presented in Figure 5.3 below.

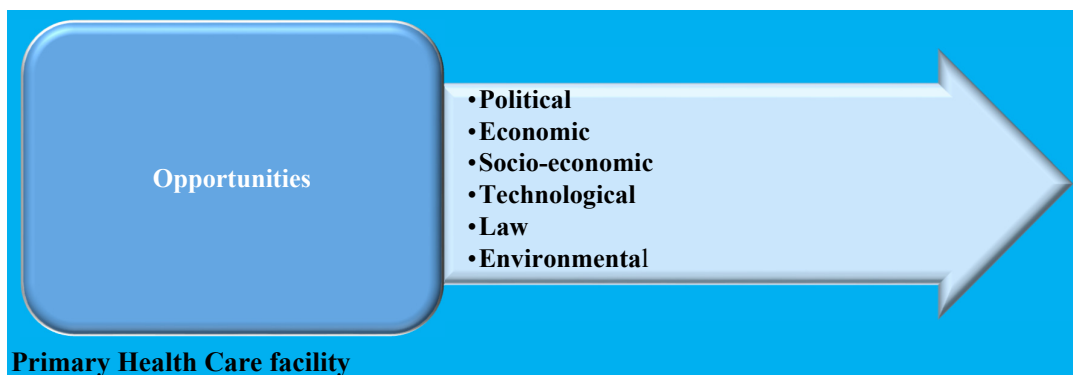


Figure 5.3: External factors: Opportunities of cervical cancer screening services

5.2.3.1.2 Economic Factors

Findings showed that all the health services are provided free of charge and this becomes expensive for the government to provide those services. The community do get different grants for various social status hardships. Girls at the age of 12 years are followed at schools and vaccinated against HPV. Furthermore, these strategies were found to be cost-effective. HPV vaccination should be included in the general vaccination of programme.

5.2.3.1.3 Socio-Cultural Factors

Findings in this study showed that some of the community members are privileged to stay next to the clinics where they get their health services, so this makes them to become socialized in utilization of the clinic. There are many community members who live in low socio-economic conditions and very few who live in a high status environment. Most areas are rural and they are

led by a chief or headman, so they mostly do as their leaders have recommended because they are obedient to their cultural leaders. Family members are able to influence one another because mostly they stay in extended families. It was also found that men were head of most families in rural areas where the man is the one who decides whether or not the woman can go for cervical screening. All these variables influence the utilization of cervical cancer screening services, according to the HBM (Morris et al., 2012:2).

5.2.3.1.4 Technological Factors

Findings showed that there is technology available at the clinics that can be used in the provision of cervical cancer screening services to access the community that is not being used. Though some clinics do not have landlines or cell phones, many clinics do have cell phones or landlines. Cell phones have different forms of communication. There is no new technology developed that is used for screening.

5.2.3.1.5 Law

Findings showed that there is failure in the implementation of the law that prescribes that an individual should be within 5 km to travel to the health service, though there are community members who are still not covered and this denies them to enjoy health that is a right for all the citizen. The HBM regards such a failure as a barrier (Morris et al., 2012:2). The clinic provides cervical cancer screening services and combined health services. All the clinics have guidelines that they use for provision of cervical screening and PHCNs.

5.2.3.1.6 Environmental Factors

The findings in this research showed that there are home-based carers available in some villages who are giving health care services to the community members at their homes. There are different groups that are available in the communities. There are community members who stay nearer to the road though far from the clinic, they have access to public transport with ease.

5.2.3.2 External Factors: Threats

The following are the threats that emerged from the findings. These external factors: threats will be discussed focusing on PESTLE as presented in Figure 5.4. below.

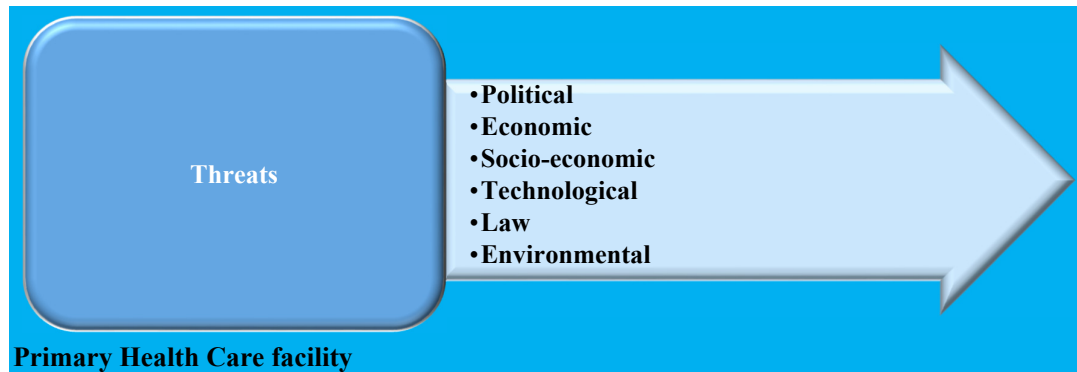


Figure 5.4: External factors: Threats to cervical cancer screening services

5.2.3.2.1 Political Factors

The political factor under consideration would be allocation of insufficient budget funds for conducting cervical screening campaign, that is why cervical cancer campaigns are not advertised adequately or failing to reach all women. Though the services are free, the clinics are at times experiencing shortage of material and human resources due to allocation of insufficient budget. Political differences make the services suffer as policymakers may disagree on issues that will benefit the society. Findings reveal that shortage of human and material resources hamper the provision of cervical cancer screening services. Women leave the clinic without getting the service due to shortage of PHCNs and equipment needed to render the services. According to the HBM, all these form a barrier to provision of cervical cancer screening (Morris et al., 2012:2).

5.2.3.2.2 Economic Factors

Economic factors that impact negatively cervical cancer screening and prevention services also have consequences on family life, including employment, income and household budget. Families have to deal with increased cancer treatment-related expenses, loss of employment, consequential

income impediments and changes in household responsibilities. All these will affect the patient's strength and energy to work. The patient will be weak, affecting the duration and period of work at her workplace and home, leading to work interruption which may lead to loss of employment. Loss of family income will result to reduction in the availability of and daily amount of food consumed (food security) and delays in paying for basic services. Children will regularly miss school days and this will result in poor progress. There will be no money to pay the school expenses so children won't go to school for their education. In fact, cancer thrusts the whole family into a poverty trap. Findings reveal that most women are unemployed and they cannot meet their family needs including transport fees to and from the clinic. Poverty trap and unemployment, according to the HBM, form a barrier in providing cervical cancer screening (Morris et al., 2012:2).

5.2.3.2.3 Socio-Cultural Factors

The socio-cultural impact of cervical cancer have negative consequences on family life. The findings in this research revealed that many women are not educated, they are poor as many of them are unemployed, they rely mostly on grants and subsistence farming. That is why not all women have access to the clinic. All these hamper the provision and utilization of cervical cancer screening services (Morris et al., 2012:2).

5.2.3.2.4 Technological Factors

Findings in this research showed that provision of cervical cancer screening services is hindered by the fact that the technology for taking a Pap smear where the results are generated is not yet developed. An antiquated method of taking of a Pap smear and waiting for the laboratory personnel to deliver the results to the clinic is still being used. Sometimes the clinic fails to render services because of shortage of resources. Social media to cater specifically for cervical cancer aret also not yet developed.

5.2.3.2.5 Law

Findings showed that lack of effective policy interventions is a barrirer to utilization of cervical

screening services, as confirmed by the HBM (Morris et al., 2012:2). There is no cervical cancer screening services that are provided during the night. Cervical cancer screening is provided by PHCNs only; meanwhile there are other categories of nurses who can be trained on how to take a Pap smear. The intervening period of ten years between Pap smears is too long.

5.2.3.2.6 Environmental Factors

Vhembe District is a rural area with gravel roads pitted with a lot of pot holes which make it treacherous for drivers to use them because they damage the car tires and cause accidents. The area is mountainous making the community reluctant to climb or descend the mountain on their way to or from the clinic. It also makes the community far removed from the clinic because the villages are scattered all over the different mountains and hills. The roads over the mountains are also too long making the travel distance to the clinic too far and long. This type of environment forms a barrier to utilization of cervical cancer screening services (Morris et al., 2012:2).

5.2.4 SWOT Analysis Matrix

The SWOT analysis was developed from findings and discussion of section 5.2. The SWOT analysis matrix reflects the positive and negative internal and external factors identified in the way cervical cancer screening services are provided. SWOT analysis matrix in Table 5.2 below were identified from the above discussed findings.

Table 5.2: SWOT analysis matrix

		STRENGTHS	WEAKNESSES
INTERNAL	HUMAN RESOURCES	<ul style="list-style-type: none"> • Effective resource sharing approach where various services are combined in one area 	HUMAN RESOURCES <ul style="list-style-type: none"> • Capacity of PHCNs in provision of cervical cancer screening services insufficient
	COMPETENCES	<ul style="list-style-type: none"> • Pap smear training course is available locally; PHCNs are trained locally 	COMPETENCES <ul style="list-style-type: none"> • Lack of continuity of care
	FINANCIAL COST	<ul style="list-style-type: none"> • Health services are provided free 	FINANCIAL COST <ul style="list-style-type: none"> • Limited financial support for cervical cancer screening provision
	SERVICES		SERVICES
	<i>Accessibility</i>	<ul style="list-style-type: none"> • All the available clinics are providing cervical screening service 	<i>Accessibility</i>
	<i>Acceptability</i>	<ul style="list-style-type: none"> • Vaccination of girls aged 12 years as a way of building their immune system against HPV 	<i>Acceptability</i>
<i>Availability</i>	<ul style="list-style-type: none"> • Guidelines that guide the providers on cervical cancer screening services are available • Pap smear training course is available locally 	<i>Availability</i>	
<i>Affordability</i>	<ul style="list-style-type: none"> • Cervical cancer screening campaign is provided free 	<i>Affordability</i>	
	OPPORTUNITIES		THREATS
EXTERNAL	POLITICAL		POLITICAL
		<ul style="list-style-type: none"> • The political will is starting a health service system which is bringing the health service as nearer to the community as possible 	<ul style="list-style-type: none"> • Insufficient material for provision of cervical cancer screening services • The political will is depositing insufficient funds for conducting cervical screening campaigns • Shortage of human and material resources hamper the provision of cervical cancer screening services

<p>ECONOMIC</p> <ul style="list-style-type: none"> • Use of incentives to motivate women to come for cervical cancer screening 	<p>ECONOMIC</p> <ul style="list-style-type: none"> • Unemployment of women • Loss of family income will result in: <ul style="list-style-type: none"> - Reduction in the daily food consumed - Delays in paying for basic services - No money to pay school expenses - No money to pay transport costs to and from the clinic - Children won't be able to go to school - Children will regularly miss school, so their education will suffer - Whole family is pushed into poverty trap - Changes in household responsibilities - Interruption of period of workplace - Family cannot meet financial obligations
<p>SOCIO-CULTURAL</p> <ul style="list-style-type: none"> • Availability of day-to-day items that can be used to transmit information 	<p>SOCIO-CULTURAL</p> <ul style="list-style-type: none"> • Poor family support to women who are supposed to go for cervical cancer screening • Women do not go for male PHCNs to screen them • The socio-cultural status impacts negatively on utilization of cervical cancer screening services • Women are not educated • Women are poor • Unemployment is widespread • Women rely mostly on social grants
<p>TECHNOLOGY</p> <ul style="list-style-type: none"> • Address the problems relating to available scheduled transport 	<p>TECHNOLOGY</p> <ul style="list-style-type: none"> • Technology for taking a Pap smear taking is not yet developed • Social media to cater specifically for cervical cancer is not yet developed • Shortage of technological resources for communication
<p>ENVIRONMENTAL</p> <ul style="list-style-type: none"> • Partnership with others and community engagement 	<p>ENVIRONMENTAL</p> <ul style="list-style-type: none"> • Long traveling distance to and from the clinic

	<ul style="list-style-type: none"> • Women not educated • Women have misconceptions about pap smear
LAW	LAW
<ul style="list-style-type: none"> • Strengthening Adult Basic Education • Improve the Pap smear training courses, programmed in such a way that it addresses the present shortage of PHCNs who have completed the pap smear course 	<ul style="list-style-type: none"> • Findings showed that lack of effective policy interventions • Cervical cancer screening is provided by male PHCNs • Period in between screening campaigns in the guideline is too long

5.3 Development of the Strategy

5.3.1 Orientation to the Strategy

All the activities discussed under SWOT exposed the strengths, weakness, opportunities and threats in the provision of cervical cancer at Vhembe District clinics. The SWOT matrix analysis information was used further in the development of strategies (Guillory & Galindo 1995:13). In order to increase utilization of cervical cancer screening services, the action plan Build, Overcome, Explore and Minimize (BOEM) strategy was used to do so as outlined in the (Pearce, 2010:1). People are different, hence different strategies must be used simultaneously to reach many people at the same time to be more effective as compared to using only one strategy. People differ in many aspects and circumstances, for example, availability of time, educational, financial and health status, means of communicating, support system, field of interest.

Gu et al. (2011:2037) indicated lack of time is also a barrier to utilization of cervical cancer screening services. Influence of other factors that were found to be barriers to cervical cancer screening were lack of interest and access to screening (Abiodun, Fatungase, Olu-Abiodun, Idowu-Ajiboye & Awosile, 2013:53). Several studies suggest that awareness and knowledge of cervical cancer and screening do not necessarily translate to increased utilization of cervical cancer screening services (Leung & Leung, 2010:22; Ngugi, Boga, Muigai, Wanzala & Mbithi, 2012:595). The plan that have been used to develop the strategies to influence women to utilize

cervical cancer screening services is Build, Overcome, Explore and Minimize (BOEM). The strategy for increasing the utilization of cervical screening services will be developed by building strengths, overcoming weaknesses, exploring opportunities and minimizing threats. The researcher went through all data indicated as strengths, weaknesses, opportunities and threats.

5.3.2 SWOT, PESTLE and BOEM Strategy

Figure 5.5 below presents SWOT, PESTLE and BOEM strategy that were used to develop strategies.

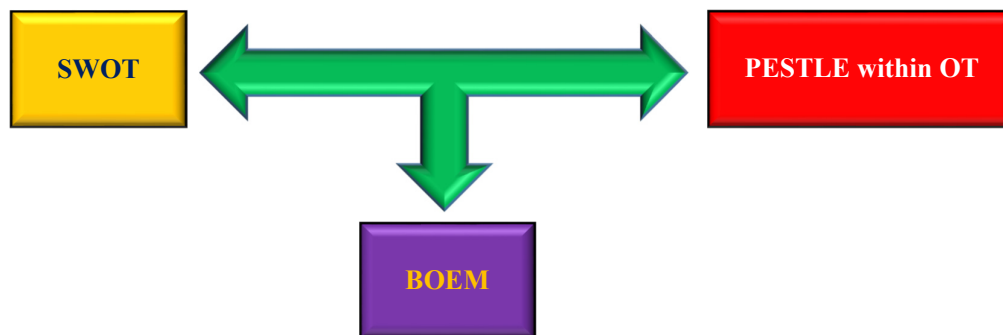


Figure 5.5: SWOT, PESTLE and BOEM strategy

Table 5.3 below presents the action plan which indicate BOEM developing strategies from SWOT.

Table 5.3: The BOEM strategy

BUILDING ON THE STRENGTHS

Strengths	Actions
Vaccination of girls who are 12 years as a way of building their immune system against HPV	<ul style="list-style-type: none"> • Vhembe District department should propose the training of other categories of nurses for providing HPV vaccination. • The National DoH should incorporate the vaccination of girls into the immunization program. • The PHCNs should draw a follow-up programme in order to cater for girls who were not vaccinated at the time when vaccination was done at their school. • PHCNs should involve teachers in teaching about HPV and vaccination to school children.
Cervical cancer screening services are provided	<ul style="list-style-type: none"> • PHCNs should provide 24 hours cervical cancer screening services in order to accommodate all women.

	<ul style="list-style-type: none"> • PHCNs should be allocated specific duties to perform for the day, for example, to provide cervical screening services or reproductive health only. • Vhembe District DoH should refer the matter of training other categories of nurses to take the Pap smear to the correct forum.
Cervical cancer screening campaigns provided	<ul style="list-style-type: none"> • The PHCNs at the clinic should make the cervical cancer screening campaign to be led by the community health member or lay health worker who will be arranging with women the date, venue and number of the women to be screened depending on resources available for providing cervical cancer screening campaigns.
Availability of guidelines in the clinics that guide the providers on cervical cancer screening services intervals	<ul style="list-style-type: none"> • The PHCNs should refer the input of changing the screening interval period to three years in between the screenings and stopping at the age of 65 years, provided that the screening results are negative.

OVERCOMING OF WEAKNESSES

Weaknesses	Actions
Lack of continuity of care	<ul style="list-style-type: none"> • The Vhembe District should be responsible for issuing of cell phones with appropriate applications, controlling the use of the air time and servicing of PHCNs on how to use them. Cell phones may be used to communicate with individual women, reaching many women at a time or telephone discussions can be conducted with women for different reasons. • The PHCNs who are working at clinics without cell phones should apply for one so that they may follow-up on clients. • The PHCNs should establish the method that the client prefers to be used during communication, for example, WhatsApp, written message, Facebook, etc. • The PHCNs should apply for the network that is mostly accessible in that clinic. • Scientific and technological innovations should be used to make information about cervical cancer screening campaigns easily accessible. They can vary in format, notation, flow chart, electronic message, checklist or content. • Technology in the form of reminders and recall systems, generated electronically or manually, should be used to inform cervical cancer screening providers about individual women who are due or overdue for screening. These reminders should convey information to providers, before, during and after a scheduled visit, regarding the woman's cancer screening status. • Important: The PHCNs should make a requisition for all the equipment indicated above and motivate for the equipment which are not available in the stock for the clinics. They should also apply for an in-service training on how to operate the equipment effectively. The PHCNs should propose to the radio stations to give them a chance to talk about health-related matters as the radio is a multimedia technology that reaches many people at a time. • Pictures may also be used to convey messages, for example, a picture of red lips as a symbol of the cervix affected by cancer may be thrown into the social media, Facebook, Twitter or WhatsApp status in order to attract many people at the same time informing them about cervical cancer. • The Vhembe District should also show short videos on health issues like cancer in public areas, for example, they can use the screens that are presently placed in public areas that are used for advertisements. • The DoH should develop a cervical cancer websites for storage of information which can be accessed by many people at anytime. Health-related research findings should also be kept on such websites. • The DoH should stretch the telemedicine and radiology initiatives to other areas.

<p>Limited opportunities for individualized health education to healthy women</p>	<ul style="list-style-type: none"> • The PHCNs should seek a means of establishment of individualized health education programmes for healthy women by utilizing the home-based carers and community health workers.
<p>Negative impact of supermarket model for provision of PHC services</p>	<ul style="list-style-type: none"> • The daily delegation of duties at the clinic should be done in such a way that one PHCN is allocated clients with related complaints at a time so that the PHCN can give special attention to them unlike when using the Supermarket approach where the PHCN will attend to clients as they come in her consultation room. There should be a room specifically allocated for a PHCN who will be doing, for example, reproductive health, which shall include taking of Pap smears. • The PHCNs should be encouraged to be friendly and respectful towards patients without discrimination in anyway when providing cervical cancer services in order to make women feel comfortable when they are given care. • The PHCNs should inform all clients about all the happenings at the clinic so that s/he may be aware of the service processes in order to make women exercise patience to wait for their turn to consult. • The clinic managers together with the PHCNs should assess the impact of the Supermarket approach and write a motivation to do away with it or to modify it based on their findings.
<p>Screening campaign are targeted a specific areas resulting in failure of women to access those areas</p>	<ul style="list-style-type: none"> • The PHCNs should intensify the cervical cancer screening campaigns on the calendar event dates by increasing the number of PHCNs delegated for cervical cancer screening during that time. • The PHCNs should come up with a way of providing door-to-door cervical cancer screening services in order to reach those who fail to access cervical cancer screening, for example, PHCNs should train the community health workers on how to provide door-to-door awareness of cervical cancer screening services in order to reach those who fail to access the present cervical cancer screening campaigns. • The PHCNs should combine the cervical cancer screening campaigns with other campaigns or community events in order to access as many women as possible • The PHCNs should propose popular women to be the guest speakere on on the first day of the cervical cancer screening campaign and that speaker should be the first one to be screened, so as to motivate other women to be screened.
<p>Cervical cancer screening intervals too long</p>	<ul style="list-style-type: none"> • The PHCNs should propose this issue through the correct channels so that it can reach the correct forum in the mean time teaching and reminding women about the present interval of 10 years
<p>Health record kept by individual patient only</p>	<ul style="list-style-type: none"> • The DoH should improve the present clinic patients record keeping and migrate to an electronic record keeping system and make the records accessible to both public and private health workers. • The PHCNs at a clinic without a computer should request for a purchase of the computer and the government should provide. • The government should train nurses on how to use the computer/electronic record keeping systems.
<p>Cervical cancer screening services provided during the day only</p>	<ul style="list-style-type: none"> • The Vhembe District DoH should determine that cervical cancer screening services be provided 24 hours a day.

EXPLORING OPPORTUNITIES

Opportunities	Actions
<p>Availability of day-to-day items that can be used to</p>	<ul style="list-style-type: none"> • The DoH should make a deal with companies that produce these items so that they should write cervical cancer information on such items, for example, refrigerator magnets, grocery plastic bags, sanitary pads, family planning containers, chappies and sweets

transmit information.	<p>wrappers, cosmetics, condom packets, baby products, boards along the road and public areas.</p> <ul style="list-style-type: none"> • The PHCNs should have charts related to cervical cancer written in the languages that are commonly used in that area. The PHCNs can also involve the community in making such charts.
Address the problem of available scheduled transport	<ul style="list-style-type: none"> • The PHCNs should identify areas that are affected by scheduled transport so that they become aware of the transport times in order for them to schedule their routine work in such a way that it accommodates all women.
Partnership with others and community engagement	<ul style="list-style-type: none"> • A special relationship with other stakeholders and the community should be built and strengthened by the PHCNs in order to facilitate transmission of information and motivation of individuals for screening. • The government should work in partnership with Vodacom, MTN, Cell C and 8ta network companies so that they can assist with transmission of information, for example, writing cancer-related information on the airtime slip, making an automatic voice message heard when you have dialed their information centre or adding cancer-related information when receiving <i>Please Call Me</i> messages. • The PHCNs should follow the government procedures for inviting donations so that they can approach businessmen and other stakeholders to donate items like big screens or they can sponsor cervical cancer-related events. • The PHCNs should be acquainted with the methods used by civic organization and the chief should pass information to the whole community at once and should also use the same methods to send cancer-related information.
Use of incentives to motivate women to come for cervical cancer screening	<ul style="list-style-type: none"> • The PHCNs should identify incentives that are of value to women, devise a means of getting them, and give them to women as a means of motivating them for utilizing cervical cancer screening services. • The managers of clinics should develop criteria for giving PHCNs incentives in order to encourage them to provide cervical cancer screening services. A target may be specified, for example, if a PHCN do a certain number of Pap smears within a specified time, that PHCN will be awarded a nominal cash bonus or whatever form of acknowledging the performance. • The government should encourage private health care delivery sector to render cervical cancer screening services at a price affordable so that women who would like to be screened by private doctors can enjoy this benefit as a form of an incentive.

MITIGATION OF THREATS

Threats	Actions
Women has misconceptions about what a Pap smear is	<ul style="list-style-type: none"> • The PHCNs should always document the misconceptions and the clarifications thereof and make the document accessible to women who come to the clinic for consultation. • Each time when the PHCN gives health education about cervical cancer s/he must invite and address those misconceptions.
Women not educated	<ul style="list-style-type: none"> • The government should intensify the Adult Basic Education Training (ABET) which is available in some of the communities so that it can help women to read about cervical cancer and screening.
Unemployment of women	<ul style="list-style-type: none"> • The PHCNs should work hand-in-hand with the community developer, empowering women by skills development or by helping them to get employed. • The PHCNs should increase the present mobile clinic areas so that areas that are not presently reached can be reached. • The PHCNs should make men aware of their financial role in cervical cancer screening of their family members.
Insufficient material for	<ul style="list-style-type: none"> • The PHCNs should identify the problems that are there in the present procurement process method as outlined in accordance with The Public Finance Management Act (PFMA) 1 of

provision of cervical cancer screening services	1999 and discuss them with the other clinic staff members and then follow the correct channels to communicate this to the correct forum.
Staff shortage	<ul style="list-style-type: none"> • The PHCNs should teach home-based carriers and community health workers how to test urine for HPV and if the results are positive they should then refer the women to the clinic. • The government should create more posts for both PHCNs who are trained or not trained to do Pap smear at the clinics. • The government should improve the Pap smear training courses/programmes in such a way that it addresses the present shortage of PHCNs who are trained in doing Pap smears.
Distance to the clinic is too long	<ul style="list-style-type: none"> • The government should built more clinics in areas where there is a need to reduce the more than 5 km walking distance to the clinic.
Poor family support to women who are supposed to go for cervical cancer screening	<ul style="list-style-type: none"> • The PHCNs should teach families on how to support their female members in cervical cancer screening matters and encourage them to do so. • The PHCNs should inform the community about their role in supporting their family members in utilizing cervical cancer screening.
Lack of support of women by their husbands.	<ul style="list-style-type: none"> • The PHCNs should start teaching boys and girls about cervical cancer while they are still at school so that both sexes can understand HPV vaccination or cervical cancer screening. • The PHCNs' use of "Munna ndi nnyi" (Who is the real man?) groups. This is the name given to non-governmental organizations or churches that deal with issues related to men only. • The PHCNs should encourage men to support their wives physically, mentally and financially and they should visit the clinic with their wives and see what is being done.
Women do not go for male PHCNs to screen them	<ul style="list-style-type: none"> • The PHCNs should inform women that a male PHCN is allocated for doing pap smears and that those who are not comfortable they must report so. • In the clinics where a male PHCN is allocated for screening there should always be a female PHCN who is a standby in case there is need.
Women who fear the Pap smear procedure	<p>The PHCNs should:</p> <ul style="list-style-type: none"> • Refer them to other women who have been done Pap smear so that they can share their experience with them. • Show them videos of how a Pap smear is done. • Show them Pap smear equipment and allow them to touch and manipulate them.

5.4 Summary

No single strategy will continuously be effective, but each of these strategies will be effective for certain behaviour changes and development, and they need to be coordinated. Cervical cancer screening programme planners should try and employ each strategy that is suitable in a comprehensive and coordinated manner. The HBM theory will thus be explored. Intervention strategies to promote utilization of cervical cancer screening services have been developed. SWOT analysis was used to identify and analyze the strengths, weaknesses, opportunities and threats that are presently affecting the promotion of utilization of cervical cancer screening services by women

of Vhembe District (Science of Health & UNICEF 2015:1215). The internal factors, which are the strengths and weaknesses were discussed focusing on human resources, financial costs, competence and products/services. The external factors, which are the opportunities and threats were discussed focusing on the PESTLE (Pearse, 2007:25). BOEM was then used to develop strategies that will be used to promote women to utilize cervical cancer screening services. Utilization of cervical cancer screening services need involvement, continuous support and commitment by everyone. Education through mass communication and cervical cancer screening campaigns may promote the utilization of screening services provided sufficient resources are available.

CHAPTER 6

SUMMARY, VALIDATION, LIMITATIONS, RECOMMENDATIONS AND CONCLUSION

6.1 Introduction

The previous chapter used the findings to develop the strategies to influence women to utilize the cervical cancer screening services. In this chapter, assessment was done as to whether the objectives of this study were met and validated. Recommendations were made related to strategies that can be used to build on the present strengths, overcome weaknesses, explore opportunities and minimize threats. Recommendations related to what may be done by the community, PHCNs, researchers and government to promote the utilization of cervical cancer screening services were made.

6.2 Brief Summary of Chapters

A brief summary of the chapters appears in Table 6.1.

6.3 Validation of the Developed Intervention Strategies

Validation is defined as the process of determining the degree to which the developed strategy is an accurate representation of the real world from the perspective of the intended uses of the strategy (Anderson et al., 1994:1193). Validation is correspondingly defined as the cognitive process of establishing a valid proof or act of testing the truth of something (Whehmeier et al., 2010:835). Generally, it is agreed that the developed strategy needs to be trustworthy which is validating the authenticity, importance and truthfulness to the context in which it was developed (Da Silva de Souza & Guerreiro Vieira da Silva, 2011:7). In other words, validation is consolidated as a valuable point in research so as to demonstrate the ability the study has to reveal a given phenomenon. Table 6.1 below present a brief summary of each chapter, that is, from chapter 1 to 6.

Table 6.1: A brief summary of the chapters

Chapters	Discription
1	It is a research proposal which formed an orientation for reference. The purpose of the study was to develop an intervention strategy to promote utilization of cervical cancer screening services at Vhembe District in Limpopo Province, SA.
2	Literature review was prepared after the collection of data and analysis using the available research articles and books to gather information already known about cervical cancer screening services.
3	Research methodology. Mixed method design, qualitative and quantitative research approaches were used. The research methods, research design, research setting, population, sampling, data collection methods and instrument and data analysis measures to ensure trustworthiness, ethical considerations and validation of an intervention strategy to promote utilization of cervical cancer screening services of both quantitative and qualitative research were presented.
4	Discussion of research findings related to the provision of cervical cancer screening services and the awareness of women on the utilization of cervical cancer screening services and intervention strategies used. One main theme, five themes and subsequent sub-themes were developed.
5	Presentation of findings from data collected during interviews and through questionnaire focusing on the development of intervention strategies to promote utilization of cervical cancer screening services. Strengths, Weaknesses, Opportunities and Threats as well as Political factors, Economical factors, Social factors, Technological factors, Environmental factors and Laws within opportunities and threat analyzed the collected data. The Built, Opportunity, Explore and Minimize strategy was used to develop interventions strategies. Opportunities and threats were identified as external factors.
6	The chapter focused on the conclusions which were drawn from findings, the validation of the developed strategies, methods that were used in the validation of developed strategies such as population, sampling, data collection, including data analysis, limitations of the research study were indicated and recommendations were made.

Communicative validation entails that the researcher returns to the participants who were involved in the main study to confirm whether what was depicted on the developed strategies correspond directly to what the PHCNs experienced in relation to provision of cervical cancer screening services (Straus & Corbin, 2008:228). Tonges & Ray (2011:374) supported this definition when they indicated that communicative validation means corroborating an interpretation through member checks.

6.3.1 Aim of Validation of the Developed Intervention Strategies

The aim was to validate whether the developed strategies were applicable to correct the gaps identified during this research study.

6.3.2 Objectives of Validation of the Developed Intervention Strategies

- ∞ View whether the developed strategies can be used as a means to address the gaps identified in promotion of utilization of cervical cancer screening services.
- ∞ Explore PHCNs and managers' understanding of the authenticity, importance and usefulness of the developed strategies.

6.3.3 Methodology for Validation of the Developed Strategies

In this study validation was done to check whether the developed intervention strategies will be applicable to correct the gaps identified during the research study. The validation was done after completion of the main research. The qualitative and quantitative approach was used to ascertain whether the experiences of the PHCNs and nurse managers were expressed in the developed strategies. The following was done as in the main study, Chapter 3, that is, the setting, population and sampling of clinics and PHCNs. The biography was similar to the one in Chapter 4. This was done to bring participants' views and assessments about the extent to which the developed strategies reflected their previous responses which they have offered in the first data collection period.

Purposive sampling arrived at sampling the same 15 PHCNs who participated in the main research study and 4 managers, that is, one manager per municipality. They had knowledge on the strategies that can be utilized for promoting women to utilize the screening services. Comparison assisted the researcher to determine how the strategies address the challenges of utilization of cervical cancer screening services. Questions were divided into four components, that is, building from strengths, overcoming weaknesses, exploring opportunities and minimizing threats. Questions in the questionnaire and in the interview guide were the same, the difference was on how the participants were responding to the question. In qualitative research open ended questions were asked and the participants were answering by explaining verbally. In quantitative design closed ended questions were asked and the participant had to tick "Yes" or "No". The duration for the interview

was 10-15 minutes and 5-10 minutes for answering the questionnaire.

6.3.4 Data Collection Method

The researcher went to the clinics and interviewed the managers, PHCNs were given questionnaire to answer. Though the researcher made an appointment with the participants some were found busy with patients, the researcher had to wait until the PHCNs were done. In some situations, the participant was interrupted by the arrival of an emergency and the PHCN had to leave and attend to that, but came back later to complete the questionnaire. Some interviews were conducted at the nurses' home, consultation room or office.

6.3.5 Data Analysis

The analysis search for identifying the criteria selected for the research study whether the developed strategy met the authenticity and usefulness criteria. It is a process involving organizing data (Polit & Beck, 2012:557).. All the findings were similar to the suggestions made by participants when they responded to the last question in the main study (Chapter 4), except for the ones discussed below in point 6.3.7.

6.3.6 Findings

Table 6.2 summarizes the findings.

6.3.7 Discussion of Findings

Findings support that the strategies developed will address the gaps identified during this research study. One participant was still concerned about the intervals between the screenings and she preferred it to be two years so that we may not give cervical cancer to develop any further. All of them welcomed a 24-hour around the clock service. They supported the notion that improving the present clinic patients record keeping to electronic record keeping system as it will ease continuity of care. They all wanted to do away with the Supermarkert approach.

Table 6.2: Findings from PHCNs and managers

BUILDING ON THE STRENGTH

Questions	Intervention Strategy 1: Building on Strength	Frequency	Percentage
Will the following strategies promote vaccination of girls	Training of other categories of nurses for providing HPV vaccination.	All	100%
Will these strategies of providing cervical cancer screening services promote utilization of services	Providing of cervical cancer screening services for 24 hours around the clock	All	100%
	Training of other categories of nurses to take Pap smear	All	100%
Will these strategies promote utilization of cervical cancer screening services during campaigns	Making cervical cancer screening campaign to be led by community based health worker, community member or lay health worker who will be arranging with the community the date, venue and number of the women who to be screened on that day.	All	100%
Will the proposed changes of the screening intervals in the guidelines guide the providers on cervical cancer screening services to the benefit women	Proposing for changing the screening interval period to three years in between the screenings and stopping at the age of 65 years, provided that the screening results are negative through the correct channel of communication so that in can be implemented this input.	18 Yes	94.7%
		1 No	5.3%

OVERCOMING OF WEAKNESSES

Questions	Intervention Strategy 2: Overcoming of weakness	Frequency	Percentage
Will these strategies increase the continuity of care in the provision of cervical cancer screening services	Using scientific and technological innovations to make information about cervical cancer screening campaigns, information, due dates for screening or information regarding the woman cancer screening status. They can vary in format, notation, cell phones, videos, telemedicine, flow chart, electronic message, or checklist, content, reminders and recalls.	All	100%
Will these strategies increase the opportunities for individualized health education to healthy women	Establishing an individualized health education programme for healthy women by making use of home-based carers, teachers and other community workers.	All	100%

Continued/...

Table 6.2: Findings from PHCNs and managers (continued)

Questions	Intervention Strategy 2: Overcoming of weaknesses continue	Frequency	Percentage
Will the following strategies relieve the negative impact of Supermarket Model for provision of PHC services	Clinics should do away with Supermarket Model and start delegating one PHCN to deal with client with related complaints	All	100%
Will these strategies assist in making screening campaign accessible to many women	Combining the cervical cancer screening campaigns with other campaigns or community events.	All	100%
	Use popular women to be the guest speakers and be the first ones to be screened on the first day of cervical cancer screening campaign in order to motivate other women to be screened.	All	100%
Health record kept by individual patient only	Computers to be issued to each clinic and electronic record keeping be used.	All	100%

EXPLORING OPPORTUNITIES

Questions	Intervention Strategy 3: Exploring opportunities	Frequency	Percentage
Will the strategy of using the available day to day items assist in transmission of information.	Making a deal with companies that produce these items so that they write cervical cancer information on those items, for example, refrigerator magnets, grocery plastic bags, sanitary pads, family planning pills containers, chappies and sweets wrappers, cosmetics, condom packets, baby products, boards along the road and public areas.	All	100%
Will this strategy address the problem of available scheduled transport.	Identifying areas that are affected by scheduled transport so that they treat them first in order to accommodate the schedules.	All	100%
Will partnership with others and community engagement promote utilization of cervical cancer screening services	Working in partnership all the cell phone network companies, for example, Vodacom, MTN, Cell C and 8ta so that they can assist with transmission of information. They can write cancer related information on the airtime slips, make an automatic voice message heard when you have dialed their information center or add cancer related information when receiving a Please Call Me messages, etc.	All	100%
	Learning to use the methods used by civic organization and the chief to pass information to the whole community or village at once.	All	100%
Will the strategy of giving incentives motivate women to come for cervical cancer screening	Identifying incentives that are of value to women and PHCNs and managers.	All	100%

Table 6.2: Findings from PHCNs and managers (continued)

MITIGATION OF THREATS

Questions	Intervention Strategy 4: Mitigation of threats	Frequency	Percentage
Will these strategies help to address women who has misconceptions about what Pap smear is	Documenting the misconceptions and the clarifications thereof and making the document accessible to women.	All	100%
Will these strategies help women who are not educated	The home-based carers and community health workers going around communities teaching about cervical cancer.	All	100%
Will these strategies help women who are not employed	Working hand-in-hand with the community developer empowering women by skill development.	All	100%
Insufficient material for provision of cervical cancer screening services	Identifying the problems that are there in the procurement process method as outlined in accordance with the Public Finance Management Act (PFMA) 1 of 1999 and follow the correct channels of communicating this to the correct forum.	All	100%
Staff shortage	The government creating more posts for both PHCNs who are trained or not trained to do Pap smear at the clinics.	All	100%
	The government improving the Pap smear training courses programme in such a way that it addresses the present shortage	All	100%
Distance to the clinic is too long	Building more clinic in areas where there is a need.	All	100%
Poor family support to women who are supposed to go for cervical cancer screening	Teaching families on how to support their female members in cervical cancer screening matters and encourage.	All	100%
Lack of support of women by their husbands.	Teaching boys and girls about cervical cancer while they are still at school.	All	100%
	Using “Munna ndi nnyi” (Who is the real man?) groups and churches to encouraging men to support their wives physically, mentally and financially and that they visit the clinic with their wives and see what is being done.	All	100%
Will these strategy address the barrier for some women who do not go for screening by a male PHCNs.	Allocating a female PHCN substitute when a male PHCN is allocated for screening.	All	100%
Will these strategies help to alleviate the women’s fear of being screened	Showing these women videos on how Pap smear is done, referring these women to other women who have been done Pap smear so that they can share their experience with them.	All	100%

They were all excited about making a deal with companies that produce items so that they write cervical cancer information on those items that this will enhance dissemination of information. They were excited about partnership between the government and the networks for facilitation of communicating information. Table 6.2 present findings from PHCNs and managers who participated in the research. Use of cell phone networks was supported since many people do use cell phones. Teaching boys and girls about cervical cancer while they are still at school was appreciated because they will be more knowledgeable at an early age. Involving home-based carers and community health workers in the communities for teaching about cervical cancer.

6.4 Limitations

Limitations were that interviews were started after the planned time because the researcher had to wait for the PHCNs to round off what they were doing. Some participants were hurrying for transport home and they were no longer concentrating on answering the questionnaire. At times women were coming in the clinic slowly one after another making the researcher to stay longer at a clinic waiting for the completed number of sampled participants. This led to visiting one clinic more than once. The research cannot be generalized as it was done only at Vhembe District.

6.5 Outcome of Validation

The outcome of validation supported that the developed strategies were based on findings. There is no strategy that was deleted or added. These developed strategies can contribute to utilization of cervical cancer screening by women and PHCNs in Vhembe District clinics, SA.

6.6 Recommendations

Recommendations made will improve the utilization of cervical cancer screening services at Vhembe District in Limpopo Province. The strategies are aimed at targeting and accessing individual women in order to educate them about prevention of cervical cancer and motivating them to be screened.

6.6.1 Nursing Practice

- ⌘ PHCNs should teach home-based carriers and community health workers how to test urine for HPV and if the results are positive they should then refer the women to the clinic for a Pap smear.
- ⌘ PHCNS should educate workers, their families, teacher, school children and communities about all aspects of cancer, including the tests to be done and the incorporation of the vaccination of girls into the immunization programme by the National DoH.
- ⌘ Integrate cervical cancer prevention and treatment into existing programs and facilities that provide HIV, non-communicable disease, wellness screening, sexual and reproductive health services.
- ⌘ Propose screening interval period to three years and stopping at the age of 65 years, provided that the screening results are negative in their meetings and channel it correctly so that it can be discussed and be effected.
- ⌘ Clinic managers should assess the impact of the Supermarket approach and motivate that it be done away with.
- ⌘ Vhembe District should be responsible for provision of scientific and technology to ease provision of health services, including record keeping.
- ⌘ Daily delegation of duties at the clinic should allocate one PHCN to attend to clients with related complaints at a time.
- ⌘ PHCNs should combine the cervical cancer screening campaigns with other campaigns or community events.
- ⌘ PHCNs should use popular women to attract women to come for screening during cervical

cancer screening campaign.

- ⌘ Vhembe District DoH should determine that cervical cancer screening services be provided 24 hours around the clock.
- ⌘ PHCNs should be aware of the transport times in order for them to schedule their routine in such a way that it accommodates affected women.
- ⌘ The government should work in partnership with Vodacom, MTN, Cell C, 8ta network, private sectors and companies so that these institutions can become involved in transmission of information, donations for cancer activities, etc.
- ⌘ The PHCN should study the culture, language and use of methods used by civic organization and the chief to pass information to the whole community.
- ⌘ Incentives should be used for women and PHCNs.
- ⌘ The government should encourage the private health care delivery sector to render cervical cancer screening services at an affordable price.
- ⌘ The PHCNs should work hand-in-hand with the community developer empowering women by skills development and by helping them to get employed.
- ⌘ The PHCNs should encourage men to support their wives physically, mentally and financially and they should visit the clinic with their wives and see what is being done.
- ⌘ The PHCNs should use non-governmental organizations that deal with issues related to men only or churches to encourage involvement of men in screening matters.
- ⌘ Vhembe District DoH should address budget constraints, limitations in health resources and infrastructure and present challenges to improving cervical cancer screening services

programme effectiveness.

- ⌘ The PHCNs should facilitate addressing of problems that are in the Public Finance Management Act (PFMA) 1 of 1999.
- ⌘ The government should create more posts for both PHCNs who are trained or not trained to do Pap smear at the clinics.
- ⌘ The government should improve the Pap smear training courses programme in such a way that it addresses the present shortage of trained PHCNs who perform Pap smears.
- ⌘ The PHCNs should use different methods to reduce fears related to screening.
- ⌘ The PHCNs should prepare a document that addresses misconceptions and make it accessible to women.
- ⌘ Vhembe District to control the formal continuing professional development system for PHCNs.
- ⌘ PHCN should increase the present mobile clinic areas.
- ⌘ Vhembe District Department of Works should built more clinics in order to reduce the travelling distance to less than 5 km to the clinic, maintain roads and plan for tarring all the roads to the clinics at a later stage.

6.7.2 Nursing Research

The following areas can be researched:

- ⌘ The experiences of PHCNs when rendering cervical cancer screening services
- ⌘ The effectiveness of the strategies that are used to provide cervical cancer screening.

6.7.3 Nursing Education

- ✎ PHCNs should give inputs related to Pap smear training course being included in the curriculum of the basic course to empower all nurses to be able to screen women.

6.7 Summary

The main aim of this study was to develop strategies to encourage women to utilize cervical cancer screening services. This whole process was completed through meeting the following objectives:

- ✎ **Explore and describe** the provision of cervical cancer screening services by PHCNs in Vhembe District, SA.
- ✎ **Assess the awareness** of women on the utilization of cervical cancer screening services in Vhembe District, SA.
- ✎ **Develop intervention strategies** to promote utilization of cervical cancer screening services in Vhembe District, SA.
- ✎ **Validate the intervention strategy** to promote utilization of cervical cancer screening services in Vhembe District, SA.

The method that was used to meet the first objective, explore and describe the provision of cervical cancer screening services by PHCNs among women in Vhembe District, SA. was qualitative research. The second objective assessed the awareness of women on the utilization of cervical cancer screening services in Vhembe District, SA. was met through quantitative research. The qualitative research approach was exploratory, descriptive and contextual in nature. An in-depth semi-structured interview was conducted. The quantitative approach was used to qualify the qualitative findings. The third objective, develop an intervention strategy to promote utilization of cervical cancer screening services in Vhembe District, SA. was met by the PESTLE in SWOT used to analyze the findings and BOEM was used to develop the interventions strategies. The

fourth objective was to validate the developed intervention strategy.

More efforts are needed to fight cervical cancer because this disease is preventable and treatable if diagnosed earlier. Cervical cancer can be diagnosed earlier before it advances through cervical cancer screening and early treatment can be started. This research revealed that cervical cancer can be defeated if multiple strategies are used to influence women to utilize cervical cancer screening services. Studies are also needed to better understand barriers to utilization of cervical cancer screening. Some of the strategies in use need to be intensified, like cervical screening campaigns where many women can access such services.

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ANNEXURE A

APPROVAL OF RESEARCH PROPOSAL BY UNIVERSITY OF VENDA HIGHER DEGREES COMMITTEE

UNIVERSITY OF VENDA

OFFICE OF THE DEPUTY VICE-CHANCELLOR: ACADEMIC

TO : MR/MS E.N VHUROMU
SCHOOL OF HEALTH SCIENCES

FROM: PROF J.E. CRAFFORD
DEPUTY VICE-CHANCELLOR: ACADEMIC

DATE : 25 April 2014

DECISIONS TAKEN BY UHDC OF 07th APRIL 2014

Application for Approval of Thesis Research Proposal in Health Sciences:

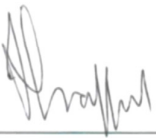
Vhuromu E.N: 11543375

Topic: "Intervention Strategy to Promote Utilization of Cervical Cancer Screening Services at Vhembe District in Limpopo Province".

Promoter: UNIVEN Prof. M.S Maputle

Co-Promoter: UNIVEN Dr. R.T Lebese

UHDC approved PhD proposal



Prof J.E. CRAFFORD
DEPUTY VICE-CHANCELLOR: ACADEMIC

ANNEXURE B

ETHICAL CLEARANCE - UNIVERSITY OF VENDA

RESEARCH AND INNOVATION
OFFICE OF THE DIRECTOR

NAME OF RESEARCHER/INVESTIGATOR:
Ms EN Vhuromu

Student No:
11543375

PROJECT TITLE: Intervention strategy to promote
utilisation of cervical cancer screening services in
Vhembe District of Limpopo Province.

PROJECT NO: SHS/14/PDC/02/1908

SUPERVISORS/ CO-RESEARCHERS/ CO-INVESTIGATORS

NAME	INSTITUTION & DEPARTMENT	ROLE
Prof MS Maputle	University of Venda	Supervisor
Dr RT Lebesa	University of Venda	Co-supervisor
Prof DT Goon	University of Fort hare	Co-supervisor
Ms EN Vhuromu	University of Venda	Investigator - Student

ISSUED BY:
UNIVERSITY OF VENDA, RESEARCH ETHICS COMMITTEE

Date Considered: August 2014

Decision by Ethical Clearance Committee Granted

Signature of Chairperson of the Committee:

Name of the Chairperson of the Committee: Prof. G.E. Ekosse



University of Venda

PRIVATE BAG X5050, THOHOYANDOU, 0950, LIMPOPO PROVINCE, SOUTH AFRICA
TELEPHONE (015) 962 8816/8313 FAX (015) 962 9060

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ANNEXURE C1

APPLICATION TO LIMPOPO PROVINCE DEPARTMENT OF HEALTH

AN INTERVENTION STRATEGY TO PROMOTE THE UTILIZATION OF CERVICAL CANCER SCREENING SERVICES IN VHEMBE DISTRICT OF LIMPOPO PROVINCE, SOUTH AFRICA

Postnet Suite 29
Private Bag 5020
Thohoyandou
0950

The Head of Department
Attention: Research Directorate
Department of Health
Limpopo Province
Polokwane
0700

Sir/Madam

REQUEST FOR PERMISSION TO CONDUCT RESEARCH

I am a PhD student at the University of Venda. I am presently conducting a research study entitled “**An Intervention Strategy to Promote the Utilization of Cervical Cancer Screening Services in Vhembe District of Limpopo Province.**”

I am supervised by Prof. Maputle M.S. in the Department of Advanced Nursing Science.

The objectives of the study are to:

- (a) Explore and describe the provision of cervical cancer screening services by PHCNs among women in Vhembe District of Limpopo Province, SA;
- (b) Assess the awareness of women on the utilization of cervical cancer screening services in Vhembe District of Limpopo Province, SA;
- (c) Develop an intervention strategy to promote the utilization of cervical cancer screening services in Vhembe District of Limpopo Province, SA.

I need to conduct interviews with PHCNs rendering cervical cancer screening services and give questionnaires to women who receive these services at clinics in Vhembe District. The interviews will be conducted for about 30-45 minutes. The interviews will be audio-taped for verification of the findings by my supervisors and an independent coder.

The following ethical standards will be observed throughout the research process to preserve the names and dignities of all participants:

- (a) Informed consent will be signed under no pressure;
- (b) Voluntary participation and freedom to withdraw without a penalty;
- (c) All the interview information will only be accessible to my supervisors and the independent coder;
- (d) Raw material will be kept under lock and key to ensure confidentiality;
- (e) Names of the participants and their communities will not be mentioned during discussions;
- (f) Audio-tapes will be erased and field notes will be destroyed; and
- (g) The research summary will be made available to you if you so wish.

Granting me permission to conduct the research study will benefit all the mothers of Vhembe District in Limpopo Province.

Thank you
Researcher : Vhuromu E.N.
Promoter: Prof. Maputle M.S.

ANNEXURE C2

APPLICATION TO VHEMBE DISTRICT DEPARTMENT OF HEALTH

AN INTERVENTION STRATEGY TO PROMOTE THE UTILIZATION OF CERVICAL CANCER SCREENING SERVICES IN VHEMBE DISTRICT OF LIMPOPO PROVINCE, SOUTH AFRICA

Postnet Suite 29
Private Bag 5020
Thohoyandou
0950

Department of Health
Attention: Research Section
Vhembe District
Thohoyandou
0950

Sir/Madam

REQUEST FOR PERMISSION TO CONDUCT RESEARCH

I am a PhD student at the University of Venda. I am presently conducting a research study entitled “**An Intervention Strategy to Promote the Utilization of Cervical Cancer Screening Services in Vhembe District of Limpopo Province.**”

I am supervised by Prof. Maputle M.S. in the Department of Advanced Nursing Science.

The objectives of the study are to:

- (a) Explore and describe the provision of cervical cancer screening services by PHCNs among women in Vhembe District of Limpopo Province, SA;
- (b) Assess the awareness of women on the utilization of cervical cancer screening services in Vhembe District of Limpopo Province, SA;
- (c) Develop an intervention strategy to promote the utilization of cervical cancer screening services in Vhembe District of Limpopo Province, SA.

I need to conduct interviews with PHCNs rendering cervical cancer screening services and give questionnaires to women who receive these services at clinics in Vhembe District. The interviews will be conducted for about 30-45 minutes. The interviews will be audio-taped for verification of the findings by my supervisors and an independent coder.

The following ethical standards will be observed throughout the research process to preserve the names and dignities of all participants:


- (a) Informed consent will be signed under no pressure;
- (b) Voluntary participation and freedom to withdraw without a penalty;
- (c) All the interview information will only be accessible to my supervisors and the independent coder;
- (d) Raw material will be kept under lock and key to ensure confidentiality;
- (e) Names of the participants and their communities will not be mentioned during discussions;
- (f) Audio-tapes will be erased and field notes will be destroyed; and
- (g) The research summary will be made available to you if you so wish.

Granting me permission to conduct the research study will benefit all the mothers of Vhembe District in Limpopo Province.

Thank you
Researcher : Vhuromu E.N.
Promoter: Prof. Maputle M.S.

ANNEXURE D

PERMISSION FROM LIMPOPO PROVINCE DEPARTMENT OF HEALTH TO CONDUCT THE STUDY



LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF HEALTH

Enquiries: Latif Shamila Ref:4/2/2

Vhuromu EN
University of Venda
Private Bag X5050
Thohoyandou
0950



Greetings,

Intervention strategy to promote utilization of cervical cancer screening services in Vhembe District of Limpopo Province.

The above matter refers.

1. Permission to conduct the above mentioned study is hereby granted.
2. Kindly be informed that:-
 - Further arrangement should be made with the targeted institutions.
 - In the course of your study there should be no action that disrupts the services.
 - After completion of the study, a copy should be submitted to the Department to serve as a resource.
 - The researcher should be prepared to assist in the interpretation and implementation of the study recommendation where possible.
 - The above approval is valid for a 3 year period.
 - If the proposal has been amended, a new approval should be sought from the Department of Health.

Your cooperation will be highly appreciated.


Head of Department 
Date

18 College Street, Polokwane, 0700, Private Bag x9302, POLOLKWANE, 0700
Tel: (015) 293 6000, Fax: (015) 293 6211/20 Website: <http://www.limpopo.gov.za>

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ANNEXURE E1

INFORMED CONSENT FORM FOR SUBJECT INTERVIEW

AN INTERVENTION STRATEGY TO PROMOTE THE UTILIZATION OF CERVICAL CANCER SCREENING SERVICES IN VHEMBE DISTRICT OF LIMPOPO PROVINCE, SOUTH AFRICA

Researcher : Vhuromu E.N.
Promoter: Prof. Maputle M.S.

I am a PhD student at the University of Venda. I am presently conducting a research study entitled “**An intervention strategy to promote the utilization of cervical cancer screening in Vhembe District of Limpopo Province**”. I am supervised by Prof. Maputle M.S. in the Department of Advanced Nursing Science. The researcher selected you to participate in this study because you are a woman who will be able to provide valuable information. Your participation is voluntary.

The objectives of the study are to:

- (a) Explore and describe the provision of cervical cancer screening services by PHCNs among women at Vhembe District in Limpopo Province, SA.
- (b) Assess the awareness of women on the utilization of cervical cancer screening services at Vhembe District in Limpopo Province, SA.
- (c) Develop an intervention strategy to promote utilization of cervical cancer screening services at Vhembe District in Limpopo Province, SA.
- (d) Validate an intervention strategy to promote utilization of cervical cancer screening services at Vhembe District in Limpopo Province, SA.

I need to conduct interviews with PHCNs rendering cervical cancer screening services and give questionnaires to them at clinics in Vhembe District. The interviews or answering of a questionnaire will be conducted within 30-45 minutes. Interviews will be audio-taped for verification of the findings by my supervisors and an independent coder. You will be asked questions related to cervical cancer screening utilization, how much you know about cervical cancer screening and whether you have been done cervical cancer screening, if not done then why not. No payments will be paid by or to you. Participants will receive transport fee for coming to attend workshops and returning back home. You will receive free meals during the workshop. Participants will gain more knowledge about cervical cancer screening.

The following ethical standards will be observed throughout the research process to preserve your feelings, name and dignity as a participant:

- (a) Informed consent will be signed under no pressure.
- (b) Participation will be voluntary and participants have freedom to participate, withdraw the consent or discontinue participating at any time of the research process without a penalty of any kind.
- (c) All the interview information will only be a cervical cancer accessible to my supervisors and the independent coder.
- (d) Raw material will be kept under lock and key to ensure confidentiality.
- (e) Names of the participants and their community will not be mentioned or written anywhere during discussions, instead codes will be used.
- (f) Audio tapes and field notes will be used for research purpose only, then the audio tapes will be erased and field notes will be destroyed.
- (g) The research summary will be made available to you if you wish.
- (h) Your participation in this study will benefit all the mothers in Vhembe District of Limpopo Province

Thank you
Vhuromu E.N.

I,, hereby understand the content of this research after I read(or someone has read to me) this document. I have been given an opportunity to ask questions and all of my questions have been answered to my satisfaction.

By signing this form, I willingly agree to participate in the research.

Name of Participant:

Signature of Participant: **Date:**

Name of Interviewer:

Signature of Interviewer: **Date:**

Researcher

Cell phone no. : 084 652 8948

Address

Postnet Suite 29
Private Bag 5020
Thohoyandou
0950

ANNEXURE E2

INFORMED CONSENT TRANSLATION

NDILA INE YA NGA SHUMISWA U TUTUWEDZA VHAFUMAKADZI URI VHA SHUMISETSHUMELO YA U SEDZULUSA ARALI HU NA TSHILONDA KHA MULOMO WA MBUMBELO TSHITIRIKINI TSHA VHEMBE KHA PROVINSINI YA LIMPOPO

Mutodulusi: Vhuromu E.N.

Mufundedzi : Prof. Maputle M.S.

FOMO YA THEDELANO NGA NDIVHO YA THODULUSUSO

Ndi mutshudeni a no khou ita PhD University ya Venda. Zwa zwino ndi khou ita thodulusiso nga “Ndila ine ya nga shumiswa u tutuwedza vhafumakadzi uri vha shumise tshumelo ya u sedzulusa arali hu na tshilonda kha mulomo wa mbumbelo tshitirikini tsha Vhembe kha provinsini ya Limpopo”.

Ndi khou rangwa phanda nga Vho Profesa Maputla M. S. vhane vha vha kha Muhasho wa Advanced Nursing Science Univesithi ya Venda.

Ndavehelelo ya heino ngudo yanga ndi:

- (a) U todisisa na u talutshedza uri vhafumakadzi vha a ndivho naa nga u sedzuluswa arali vhe na tshilonda tsha mulomomni wa mbumbelo
- (b) U da na ndila ine ya nga tutuwedza vhafumakadzi uri vha shumise tshumelo ya u sedzuluswa arali vhe na tshilonda tsha kha mulomo wa mbumbelo kha Vhembe District ya Limpopo Province.

Ndi khou todou ita nyambedzano na vhaongi vhane vha nea vhafumakadzi tshumelo kha tshitiriki tsha Vhembe. Vhafumakadzi vhane vha wana tshumelo yavho henefho tshitirikini vhone vha do newa mabambiri ana dzimbudzi vha fhindula. Zwothe hezwo zwi do dzhia mithethe ya 30-45. Hu do vha hu na theippi rekhoda u itela uri murangaphanda wanga na musedzulusi vha kone udzi shumisa vha tshi khwathisedza zwo nwalwaho nga ha nyambedzano.

Zwitevhahalo zwi do dzhiewa ntha tshifhinga tshothe hu u itela u hulisa dzina na tshirunzi tshavho:

- (a) Vha do saina heino thendelano ya uri vha do vha tshipida nga murahu ha musi vho talutshedziwa zwothe nahone vha siho kha mutsiko.
- (b) Vha do tou funa uri uvha tshipida kana u litsha vho no diva tshipida hu sina u do dzhiewa vhukando vhu vhavhaho.
- (c) Mafhungo o ambiwaho kha nyambedzano a do swikelelwa fhedzi nga nne na vharangaphana vhangana.
- (d) Dzikhasete dza nyambedzano dzashu dzi do dzula dzo khinelwa uri mafhungo adzo a konou vha tshiphirini.
- (e) Madzina avho na vhubvo havho a zwi nga do shumisiwa musi hu tshi itiwa nyambedzano
- (f) Dzi khsete na zwibugwana zwi no do shumiswa hu tshi itwa nyambedzano zwi do tshinyekanyiwa kana zwa fhisiwa
- (g) Mafhungo ono khou wanala kha tzedzuluso vha do a wana arali vha tshi zwi takalela.

Uvha havho tshipida tsha heyi thodulusiso zwi do vhuvedza kha vho mme vha Vhembe District Limpopo Province. Nnendo pfesesa zwothe zwo nwalwaho afho ntha nga ha heyi thodulusiso nga murahu ha musi mutodulusisi o ntalutsedza

Ndi a livhuwa,

Nne.....ndi khou pfesesa maambiwa kha holu lunwalo nga murahu ha musi ndo lu vhala namusi havha mutodisise vho no ntalutshedza. Ndo tou vhala zwo nwalwaho afha (ndo tou vhaelwa zwo nwalwaho afha) Ndo newa na tshifhinga tsha u vhudzisa mbudzi. Ndo fhindulwa mbudzi dzanga dzothe nda fushea.

Ndo newa na holwu lunwalo.

U saina hanga hafha ndi khou tenda nga u funa hanga uvha tshipida tsha heyi tzedzuluso.

Dzina la mufhinduli:

Tsaino ya mufhinduli: **Datumu:**

Mutodisisi

Lutingo thendeleki

084 652 8948

Diresi

Postnet Suite 29

Private Bag 5020

Thohoyandou

0950

ANNEXURE F

INTERVIEW GUIDE

AN INTERVENTION STRATEGY TO PROMOTE THE UTILIZATION OF CERVICALCANCER SCREENING SERVICES IN VHEMBE DISTRICT OF LIMPOPO PROVINCE, SOUTH AFRICA

Researcher : Vhuromu E.N.

Promoter: Prof. Maputle M. S.

An interview guide

The following guide shall be used to collect data when conducting semi-structured interviews in qualitative research study:

- (a) How do you provide cervical cancer screening services in this clinic?

Vhanekedzisa hani tshumelo ya tshilondo tsha kha mulomo wa mbumbela?

- (b) Are women aware of cervical cancer screening services?

Vhafumakadzi vha a divha na nga ha tshilonda?

- (c) What are the strategies that you use to encourage woman to utilize the cervical cancer screening services in this clinic?

Ndi ndila dzifhio dzine dza nga shumiwa u tutuwedza vhafumakadzi uri vha ye u sedzulusaw uri vha na tshilonda tsha mbumbelo?

ANNEXURE G

CONDUCTED INTERVIEW

AN INTERVENTION STRATEGY TO PROMOTE THE UTILIZATION OF CERVICAL CANCER SCREENING SERVICES IN VHEMBE DISTRICT OF LIMPOPO PROVINCE, SOUTH AFRICA

Interview key

R: Researcher/Interviewer

P: Participant

Participant 1

R: Good morning.

P: Morning.

R: How is your morning?

P: Fine, thanks and how are you.

R: I am fine and happy to be with you as my participant. I am Elisa Vhuromu, I am a PhD student at University of Venda. I'm conducting a research and I'm collecting information on cervical cancer screening services in this clinic as I told you before. Can you explain to me how you provide cervical cancer screening services in this clinic?

P: Cervical cancer screening services here are provided on daily basis as the need arise. As the woman consult if there are problems that warrant cervical cancer screening we provide that. According to the guidelines every women coming for post natal clinic and family planning it is given that we propose the woman for cervical cancer screening, and that is where most women are screened. When we start a woman on contraceptive we have to screen her for cervical cancer first. In fact we are supposed to propose each woman consulting according to the guidelines as I have already said that. Proposing the woman is possible in most instances. Some women will even cut you short by saying "Yaa! Hey! a ni lati thaula: Yes, you don't give up" I knew you will end up telling me that, don't worry the day will come that you screen me.

R: Is that how they respond?

P: Not all of them. Some do accept the proposal voluntarily, some are forced to accept the proposal because it will be related to the health problems that brought them to the clinic. In most instances they will give an excuse why it won't be possible to screen them there and there. Some are afraid, some are rushing to the fields they have no more time to still be at the clinic, some will suggest that they will come another day for that, some are rushing for public transport and so on and so on. Most of the clients around here use public transport for reaching the clinic, so they are many in the morning. We need to attend to them so that when the transport home arrives it must find them ready, otherwise that shall mean footing home and its far. Transport give them the reason to refuse to be screen because they think that screening may take long and transport home may leave them and they will remain stranded because they stay far and the area is also mountainous. People that stay nearby they start by doing their households activities in the morning or going to the fields first in the morning because they know that in the morning the clinic will be full of those that use public transport and this will make them wait longer for consultation.

R: Mmm! Continue.

P: Shaking her head (Vhunzhi havho a vha i foleli heyo: Most of them never come back) especially if they are not experiencing any problem related to the reproductive system. So it is a routine to us, we keep on proposing women as they consult.

R: If I understood you well, you are saying you propose the women to be screened as they consult in the clinic.

P: Yes.

R: Now my question is, Is that the only place where you propose them?

R: Yes! *(Nodding her head: this is a sign to strengthen the words being said)* I said so that we propose women mostly as they consult at the clinic. That is where we get them.

R: It means that those that do not come to the clinic for consultation do not get this proposal

P: Yes, because we don't do home visits to healthy mothers for screening proposal, even for health education we don't follow them home to give them health education.

R: I agree with you, continue.

P: We give health education to all patients first thing every morning. Individual health education is given during consultation when addressing the patient's problem. We also give health education when we conduct screening campaigns.

R: Ok When conducting cervical cancer screening campaigns?

P: Yes, during cervical screening events as indicated in the year calendar we talk to the patients more about cervical cancer and screening. There is a team which do outreach services. They are the ones who will go out to the villages and provide cervical cancer screening.

R: How do you reach them

P: We tell them as they consult at the clinics. The radio staff do invite us to come give health education over the radio.

R: How else do you inform the community?

P: Through the home based carers because they work out there in the community. They are the ones who assist in making the community aware that there will be or there is a screening campaign. Though they don't go door-to-door as such but as they go around the village they tell people as they meet them. They also tell people who stay in the house they have planned to visit on that day. By doing that they are able to reach as many women as possible.

R: Do you have something in your mind that you think it can be done to reach those women

P: I think if they cannot reach us at the clinic for the services provided, then we need to take the service to them, but I don't know how exactly we can do that because we serve a large area with many households. I don't think it will be possible for us to do door-to-door cervical screenings proposals or health education. I don't know, maybe the present mobile health services can extend its services to door-to-door services. Oh! I don't know.

R: Good. Can you see now, though doubting yourself you are coming with something worth to be tried. Continue

P: Yes maybe it will work because it is not everybody that uses the clinic for health services and healthy women do not come to the clinic for health advice or checking. They need motivation enough to can make them part with money for transport and come to the clinic for screening while they are not ill. Visiting them at their home will give them no reason to refuse to be screened. They will also see that the government is caring for them. After all the repeats will be done after a long time. *(Kept quiet for sometime and said: a sign of digesting the idea)* No! this can work *(making a fist and moving her hand forward and backwards: a sign indicating an excitement that this idea is powerful and it will work).*

R: Ok Lets go back a little, what happens if you propose a woman and the woman is agreeable that screening be done?

P: I have to do the screening there and there. The next patient will be attended to after I am done with screening. I record on the patients small note book that I did a Pap smear. I record the patient in the register and home based care communication book, label the specimen and put it safely. I then ask the women information that I must use to contact her for follow-ups, that include her cell number, physical address description, neighbour, child's name and the local school that she or he attend, the home based carer who serves them and what ever can be of help. The laboratory officer will come and collect the specimen to the laboratory for testing. Then after a period of not less than two weeks the result are back. I tell the women to come for the results after two weeks. If she does not come I make follow-ups using the information that she gave me.

R: I see there are male PHCNs. Are women around comfortable when they are done Pap smear by those male nurses.

P: It differs with patient, some do verbalize that they don't want to be screened by a male PHCN, some do not feel the difference, whether they are done by a male or female. Most of those who don't want to be screened by males verbalize that they feel embarrassed when screened by males"

R: I interrupted you when you were talking about the small note book. Can you talk about it?

P: We encourage patients to bring the note book where in the PHCN write down the patient's health information. At times patients come with the new note books because they did not come from home when they visited the clinic or they don't want their previous ill health to be known.

R: So they hold their health information.

P: Yes. At the clinic we don't have an individual record because in the register we write all patients who consulted, their health problems and our interventions. The individual record is only in the small note book.

R: I understand. Now concerning the Pap smears done, are women able to get their results?

P: *Nodding the head* Yees ... *pulling the word*. Sometimes women do come for their results on their own. This is because we don't use one way to contact them because we have a government cell phone to contact them, failure of which we send the home based carers to contact them, if it happens that the woman's results are positive, we go all out to find her. If it happens that the results are not back when the woman visits the clinic for the results it discourages follow-ups. We also feel disappointed and discouraged that we did not keep the promise. Though this is not common that the results are delayed.

R: Mmmm! Tell me more about how you provide cervical cancer screening services?

P: We provide cervical screening services to every newly diagnosed HIV/AIDS or TB woman, as indicated in the guidelines for provision of cervical cancer screening. The guideline indicates that cervical cancer screening repeats of HIV/AIDS women should be done more frequently, that is every two years, unlike with normal women where it should be repeated every 10 years. This has increased the number of women to be screened because of the large number of patients with HIV/AIDS and TB.

R: You said the guidelines indicated what?

P: The guidelines indicate that for every newly diagnosed HIV/AIDS woman cervical cancer screening should be done. The repeats of HIV/AIDS women should be done more frequently, that is every two years, unlike with normal women where it should be repeated every 10 years unless if the patient experiences some problems.

R: OK!

P: We provide cervical cancer screening services as prescribed by the guidelines. We do have the document and we have been orientated on how to implement it. We attended workshops related to the implementation of those guidelines. When changes are made, we attend workshops where we are informed about those changes and encouraged to implement the changes. Like for example, when it was changed that every woman who is HIV-positive should be screened for cervical cancer screening, the information was communicated to us and presently we are practicing that.

R: Continue.

P: We use the interval of Pap smear as indicated in the guideline, that is ten years in between so that a woman is screened at least three times in her lifetime.

R: Yes, continue with the ten years interval.

P: Yes, on the other hand women who are screened and told that another screening is due after ten years, some of them feel like they are immuned, discharged from having cancer or guaranteed that they will not have cancer for that ten years period. You will find that even if they experience cervical cancer related problems they don't report earlier. They end up coming late when the cancer has already advanced. This makes me to suggest reduction of this period.

R: OK! So you are suggesting that the women who had normal cervical cancer screening results should be done a repeat screening within a period less than ten years.

P: Yes under normal circumstances the repeats are supposed to be done every ten years, and that is according to the cervical cancer screening guidelines, which gives a woman a chance to be screened at least three times in her life time. I am not happy about this long interval. Maybe it worked then when many women were not exposed to many situations that predisposes them to cervical cancer. Nowadays there are many situations that predisposes women to cervical cancer.

R: Like?

R: Many of the girls engage themselves in sexual activities which also influence them to change one partner from another or they have more than one partner. The Mandela monies on the other hand encourage them to make babies in order to get that money, so it is obvious that they are engaging themselves to unprotected sex. There are people who are selling traditional medication said to be good in making a sexual partner to enjoy sex or to no longer love any other partner. Men and women are buying those medicines in order to achieve the goal.

R: In other words you are saying these are some of the causes of cervical cancer.

R: Yes they are. I remember when I was training, our tutor used to say, women stay natural because many things that you can use to change yourselves exposes you to cancer, for example cancer of the cervix or skin.

R: Is there any document that guides you on the provision of cervical cancer?

P: We do have the document and we have been orientated on how to implement it. We provide cervical cancer screening services as prescribed by the guidelines. We attended workshops related to the implementation of

those guidelines.

R: Yes! I'm listening.

P: The guideline instruct that there be an interval of ten years in between the cervical screenings provided that the results thereof are normal and that is what is being practiced.

R: So in other words that is a pot fall on the side of the guideline.

P: This ten years period in between the cervical cancer screenings is rather too long and it is like it is contributing to women coming for consultation late. The lesion develops and the woman does not come for consultation because in her mind it is like she will never have cancer within that ten years. I have witnessed about 3 patients who were done cervical cancer screening and had cervical cancer within the 10 years. When they were asked why they didn't consult earlier, all of them said.

R: Ok! Tell me more about the guidelines.

P: The guideline indicate that the PHCN to take a Pap smear should be competent to do so.

R: Meaning?

P: There is a course that we attend where we are trained on how to do Pap smear, we sort of specialize in doing Pap smear.

R: Continue to tell me more about how you provide cervical cancer screening services?

P: Oh! What else can I tell. At times we become short staffed because someone will be on leave, be it annual, maternity or sick leaves, attending meetings or courses. This has a negative impact on the provision of services as a whole.

R: Mmm! I'm listening.

P: Equipment for conducting a pap smear are at times not available at the clinic. When women are told to come back to check if equipment are available or to go to another clinic so that Pap smear can be done, they usually don't return neither do they go to the referred clinic, even if they are experiencing the symptoms. Now, what more about those that are not experiencing any symptom. This is the reason that some of these women come presenting with symptoms.

R: Meaning that they come being ill?

P: In most instances I mostly do pap smears to women who are presenting with symptoms related to cervical cancer. Those who come for health reasons in order to know their status are very few. The number of those who come for cervical cancer screening in order to know their status increases when there is a campaign.

R: And then?

P: The situation becomes worse if we don't even have the equipment for screening, like when we don't have the disposable speculum or sterilizing equipment. I for one feel that I cannot insert an unsterile vaginal speculum into the women knowing that I am inserting micro-organisms. I cannot do that. *Said this waving the hands: this is emphasizing that never.*

R: OK Is the community aware that you are rendering cervical cancer screening services in this clinic?

P: Yes they are aware, in fact they know that at the clinics all the conditions are checked and treated by PHCNs, doctor and other health care workers. They are aware that nowadays there is a clinic doctor and other health care workers to whom they can be referred to at the clinic. They are aware that we render cervical cancer screening services because we give health education about cervical cancer and the services provided. We do tell them that when they want to be screened we will do that within a blink of an eye. We propose them to be done screened, some accept or deny the proposal. They also share the information amongst themselves. So I think most of the community members are aware that we do provide cervical cancer screening services.

R: Now do they come for utilization of the services

P: Yes! Some do attend but some do not because they are afraid of their husbands.

R: And?

P: Women are afraid of using the services because they think that their husbands will suspect something if they want to be tested meanwhile they are not sick, it will be thought that they are having extra marital sexual relationship. Meanwhile the unmarried women will opt to go for cervical cancer screening as they would see the advantage of early diagnoses and treatment,

R: Mmmmm!

P: Most men do not support their wives because most married women don't come with their husband when they come for cervical cancer screening services at the clinic. At times women even say that they will come back for follow-up only when they have a chance to do so because they don't want their husbands to know that. Some

will say they will come back if their husbands allow them to do so.

R: I understand.

P: Some fail to come to the clinic because of staying far from the clinic and the type of roads that are not good and they are at the mountains making it difficult for them to walk to the the clinic. This area does not have trans port except for the busses that pass in the mornings and evenings.

R: I also observed that when I was coming this side. Some people have even built their houses on top of the mountains. The roads aret also not user freandly.

P: This is a mountanous area, some people stay behind these mountains. Most of the clients around here use public transport for reaching the clinic though some do. These patients are come being many at the same time in the mornings as the transport pass. We need to attend to them so that when the transport back home arrives it must find them ready, otherwise that shall mean that they will foot home as it's far and there are no other means of going home. Transport give them the reason to refuse to be screened because they think that screening may take long and transport home may leave them and they will remain stranded because they stay far and ...

R: What else are they aware of pertaining to cervical cancer screening services that they know?

P: They are aware about the vaccine given for prevention of cervical cancer. They are aware that... *Just stopped talking further*

R: Yes!

P: School girls are being vaccinated against HPV virus as a way to reduce cervical cancer. This is said to be effective in preventing cervical cancer.

R: I don't see any chart or poster related to Vaccination against HPV, cervical cancer or screening. What I have seen here is TB, hand washing and other hand written chart.

P: Yes but we tell them about it. (*"Waaai"* A sound of surprise) Looking at me with a surprised face. It won't be possible to have them all. At least those charts that are here will bet alerting the patients about those aspects. Remember that the health problems is not cervical cancer only,so itdoes not necessarily mean that if there is no chart we are quiet about that topic or condition. There are many conditions that we teach but not having charts thereof like for example diabetic mellitus, hypertension, renal failure, etc.

R: Ok I see. Anything to add?

P: For now no, but I will contact you since I took your number from the consent form.

R: How was the interview?

P: Very interesting and informative. Thank you.

R: You are welcome. Thank you for everything. Contact me if you have something to share with me.

ANNEXURE H

QUESTIONNAIRE

AN INTERVENTION STRATEGY TO PROMOTE THE UTILIZATION OF CERVICAL CANCER SCREENING SERVICES IN VHEMBE DISTRICT OF LIMPOPO PROVINCE, SOUTH AFRICA

Researcher: Vhuromu E.N.

Promoter: Prof. Maputle M.S.

This questionnaire aims at exploring and describing your awareness on the utilization of cervical cancer screening services at Vhembe District in Limpopo Province, SA. You are requested to give a truthful answer without the influence of others. Answer by making a cross (X) inside the appropriate block or blocks. Thank you in advance for your generous co-operation.

Section 1: Demographic data of the participant

1. Municipality involved : Masipala une vha dzula khawo

A=Thulamela	B=Makhado	C=Mutale	D=Musina
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2. Age : Minwawa

A = 20-29	B = 30-39	C = 40-49	D = 50-59
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3. Occupational : Mushumo

A = Employed <i>Shuma</i>	B = Self employed <i>di shuma</i>	C = Unemployed <i>shumi</i>
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4. Marital status : Maimela a mbingano

A = Married <i>Maliwa</i>	B = Divorcee <i>Taliwa</i>	C = Widow <i>Tshilikadzi</i>	D = Unmarried <i>maliwa</i>
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5. What is your school destination or level of education?

A= never attended a formal school	B=Grade 1-7 or Primary	C=Grade 8-12 or secondary	D= passed matric	E= tertiary qualification
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6. What is the family source of income? Muta u wana masheleni ngafhi?

A=Monthly salary <i>Muholo wa nwedzi</i>	B=Pension <i>Ndende</i>	C=Business <i>Bindu</i>	D=None <i>A huma</i>
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7. Is income able to cater for all the family needs? Iyo tshlelede i a swikela thodea?

A = Yes : <i>Eee</i>	B = No : <i>Hai</i>
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8. If you said you are employed, is it mandatory for all the staff members at your working place to have cervical cancer screening? Vha tshi ri vha a shuma afha mushumoni wavho vha a muthu a tshi thoma tholiwa u a itiwa tzedzuluso ya pfuko ya mulomoni wa mbumbelo naa?

A = Yes : <i>Eee</i>	B = No : <i>Hai</i>
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9. Do you have any of the community groups in your community? Ndi zwifhio zwigwada zwine za vha hone afha kha vhathu vha fhano?

A=Cancer group <i>Tshigwada tsha vha vhwadze ha pfuko</i>	B = village or block group <i>Tshigwada tshabuloko</i>	C= Stockvel <i>Tshitokofela</i>	D= Football <i>Bola ya milenzhe</i>
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Section 2: The Perception regarding the provision and utilization of cervical cancer screening services

10. Is there cervical cancer screening services in this clinic? Hu na tshumela yab vhwadze ha pfuko afha kha iyi kiliniki?

A = Yes : Ee	B = No : Hai
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11. How far is the place from your home? Kiliniki i vhukule vhungafhanani u bva hayani havho?

A=Within 5 km	B=5 km and more
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12. How do you reach the clinic from your home? Vha swiki nga mini kiliniki vha tshi bva hayani?

A=Public transport <i>Tshindedzi tsha nnyi na nnyi</i>	B= Own transport <i>Tshindedzi tshanga</i>	C=Walk <i>U tou tshimbila</i>
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13. Have you ever been done a Pap smear? Vho no vhuya vha itwa tzedzuliso ya pfuko ya mulomo wa mbumbelo naa?

A = Yes : Ee	B = No : Hai
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14. If you were once done a Pap smear was your husband involved when you went for Pap smear or follow-up? Arali phindulo I ya uri vho no vhuya vha itwa tzedzuliso ya pfuko ya mulomo wa mbumbelo munna wavho vho vha vho dzhenelela khazwo naa?

A = Yes : Ee	B = No : Hai
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15. If Yes, What was the reason for doing a Pap smear? Arali phindulo I Ee Yo vha I tshi khou itelwa ni?

A	Illness : <i>Vhwadze</i>	
B	Cervical cancer screening : <i>Tzedzuliso ya pfuko ya mulomo wa mbumbelo</i>	
C	Voluntary : <i>infection/sores : ndo ya nga nne mune</i>	
D	Family planning : <i>kiliniki ya nzudzanyo ya zwa muta</i>	
E	Post natal care : <i>Kiliniki ya vhadzadze</i>	

16. If you have never been done Pap smear is it because of one of the reasons listed below : Arali huuri iyo tzedzuliso a i athu u itiwa na luthihi zwi nga vha zwo bva kha tshinwe tsha zwiitisi zwo nwaliwaho afho fhasi

A	Embarrassment : <i>Zwi a shonisa</i>	
B	Painful or causes a discomfort : <i>Zwi a vhavha</i>	
C	Queing too long for being done Pap smear : <i>laini ya hone yo lapfesa</i>	
D	Duration of the procedure too long : <i>Maitete ahone o lapfesa</i>	
E	Hatred : <i>u vhenga</i>	
F	No equipment : <i>A huna zwishumiswa</i>	

17. If you were once done Pap smear did you go again for the results? Arali vho vhuya vha itwa tzedzuliso ya pfuko ya mulomo wa mbumbelo vho dovha hafhu uya vha tshi tevelela mvelelo naa?

A = Yes : Ee	B = No : Hai
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18. Do you have a problem when Pap smear is done by a male person : Vha na thaidzo musi tzedzuliso ya pfuko ya molomo wa mbumbelo i tshi khou itwa nga muthu wa tshinnani naa?

A = Yes : Ee	B = No : Hai
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Section 3: The awareness of women on the utilization of cervical cancer screening services

19. What is Pap smear test? Vha a divha uri pap smear ndi mini?

A	Scraping to look for abnormal : <i>U hwaya u itela u sedza sele dzi si dzone cells</i>	
B	Speculum in the vagina : <i>Speculum tsha vhudzimuni</i>	
C	Treatment of cancer : <i>Mushonga wa pfuko ya mulomo wa mbumbelo</i>	
D	Test for a sexual transmitted infection : <i>U lingiwa kha malwadze a vhudzekani</i>	
E	Don't know : <i>A thi divhi</i>	

20. How frequently should a Pap smear test be done? Vha fanela u itwa pap smear murahu ha tshifhinga tshingafhanani?

A	Every year : <i>Nwaha munwe na munwe</i>	
B	Every 2 years : <i>Murahu ha nwaha munwe na munwe</i>	
C	Every 5 years : <i>Murahu ha minwaha mitanu minwe na minwe</i>	
D	Every 10 years : <i>Murahu ha minwaha ya fumi minwe na minwe</i>	

21. Do you perceive that Pap smear can detect cervical cancer earlier? Vha vhona u sedzuluswa ha mulomo wa mbumbelo zwi tshi konisa uri pfuko mulomo wa mbumbela l vhone naa?

A = Yes : Ee	B = No : Hai
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22. Have you ever heard about cancer? Vho no vhuya vha pfa nga ha pfuko?

A = Yes : Ee	B = No : Hai
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23. Where have you heard about cancer? Mafhungo nga ha pfuko vho no a pfa fhii?

A	Radio	
B	Television	
C	Clinic	
D	Church	

24. Do you regard yourself as vulnerable to can also have cervical cancer? Vha vhona na vhone vha tshi nga thaseliwa nga pfuko ya mulomo wa mbumbelo naa?

A = Yes : Ee	B = No : Hai
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25. Do you consider cervical cancer as a problem sufficiently serious to be worthy of consideration? Vha vhona vhwadze ha pfuko ya mulomo wa mbumbelo i tshi tea u dzhielwa ntha naa?

A = Yes : Ee	B = No : Hai
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26. Which of the following increases your chance for having cervical cancer? Ndi zwifhio kha zwi tevhelaho zwine zwa vha vhea kha nyimele ya u vha na pfuko ya mulomo wa mbumbelo?

A	If you have sexual relationship with more than one sexual partner : <i>musi vhe na vhanna vhanzhi vhane vha ita navho zwa vhudzekani</i>	
B	If your partner has sexual relationship with many women : <i>musi munna ane vha ita nae zwa vhudzekani a na vhatu vha tshifumakadzini vhanzhi vhane a ita navho zwa vhudzekani</i>	
C	If started to be sexual active at a young age : <i>u thoma zwa vhudzekani musidzana a tshe mutuku</i>	
D	Using the same bath with somebody who has cervical cancer : <i>U tambala kha bavu lo shumisiwaho nga muthu a na pfuko ya mulomo wa mbumbelo</i>	
E	Failure to use condoms : <i>U sa shumisa condomo kana ovarolo ya vhudzekani</i>	
F	Don't know : <i>A thi divhi</i>	

27. Have you ever come across information related to cervical cancer written on: Vho no vhuya vha tangana na mafhungo a pfuko ya mulomo wa mbumbelo kha

A	Refrigerator magnets : <i>Zwithu zwi no nambatedzwa kha zwiwaxwatudzi</i>	
B	Grocery plastic bags : <i>Bege dza maplastiki</i>	
C	Public areas : <i>Fhethu ha nnyi na nnyi</i>	
D	Boards along the road : <i>Mabodo a re badani</i>	
E	Schools : <i>Zwikoloni</i>	
F	Sanitary pads : <i>Madzudzu a no shumisiwa musi muthu e maduvhani</i>	

28. Are you aware that there is a vaccine against cervical cancer that is given to the girls at school? : Vha a divha nga ha u haeliwa ha vhasidzana zwikoloni zwi tshi khoulwa u thivhela pfuko ya mulomo wa mbumbelo

A = Yes : Ee	B = No : Hai
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29. Are you aware of other health professionals, like a doctor, social worker or dietician who are working in this clinic. Vha a dzwi divha naa uri hu na dokotela, mushumela vhapo na mudivhi wa nga ha zwiliwa ano shuma kha ino kiliniki

A = Yes : Ee	B = No : Hai
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Section 4: Interventions utilized to promote utilization of cervical cancer screening services

30. Indicate the strategies you have seen being used by the government to encourage women to attend cervical cancer screening services : kha vha sumbedze ndila dze vha dzi vhona dzi no shumisiwa u tutuwedza vhafumakadzi uri vha shumise tshumelo ya sedzulusa pfuko ya mulomo wa mbumbelo

A	Health education : <i>pfunzo ddls, like assionaza mutakalo</i>	
B	Cervical screening campaign : <i>Fulo la u sedzulusa pfuko ya mulomo wa mbumbelo</i>	
C	Cello phone reminders : <i>Lutingo thendeleki</i>	
D	Nurses visiting them at their homes : <i>vhaongi vha tou da mahayani</i>	

31. What else can be done to encourage women to attend cervical cancer screening? Hu nga itiwa mini uri vhafumakadzi vha ye u itwa tzedzuluso ya tshilonda tsha mulomo wa mbumbelo.

ANNEXURE I

VALIDATION QUESTIONNAIRE AND INTERVIEW GUIDE

AN INTERVENTION STRATEGY TO PROMOTE THE UTILIZATION OF CERVICAL CANCER SCREENING SERVICES IN VHEMBE DISTRICT OF LIMPOPO PROVINCE, SOUTH AFRICA

Researcher: Vhuromu EN

Promoter: Prof. Maputle M.S.

KEY NOTE:

Questionnaire the response is Yes/No

Interview guide: the response is through an explained

BUILDING ON THE STRENGTH

Questions from Intervention Strategy 1: Building on Strength

- 1. Will the following strategies promote vaccination of girls?**
 - ☞ Training of other categories of nurses for providing HPV vaccination.
- 2. Will these strategies of providing cervical cancer screening services promote utilization of services?**
 - ☞ Providing of cervical cancer screening services for 24 hours around the clock.
 - ☞ Training of other categories of nurses to take Pap smear.
- 3. Will these strategies promote utilization of cervical cancer screening services during campaigns?**
 - ☞ Making cervical cancer screening campaign to be led by community based health worker, community member or lay health worker who will be arranging with the community the date, venue and number of the women who to be screened on that day.
- 4. Will the proposed changes of the screening intervals in the guidelines guide the providers on cervical cancer screening services to the benefit women?**
 - ☞ Proposing for changing the screening interval period of three years in between the screenings and stopping at the age of 65 years provided that the screening results are negative through the correct channel of communication so that it can be implemented this input.

OVERCOMING OF WEAKNESSES

- 1. Will these strategies increase the continuity of care in the provision of cervical cancer screening services?**
 - ☞ Using scientific and technological innovations to make information about cervical cancer screening campaigns, information, due dates for screening or information regarding the woman cancer screening status.
 - ☞ They can vary in format notation, cell phones, videos, telemedicine flow chart, electronic message, or checklist, content, reminder and recall.
- 2. Will these strategies increase the opportunities for individualized health education to healthy woman?**
 - ☞ Establishing an individualised health education programme for healthy women by making use of home based carers, teachers and other community workers.
 - ☞ Will the following strategies relieve the negative impact of Supermarket Model for provision of PHC services.

- ☞ Clinics should do away with Supermarket Model and start delegating one PHCN to deal with client with related complaints.
3. **Will these strategies assist in making screening campaign accessible to many women?**
 - ☞ Combining the cervical cancer screening campaigns with other campaigns or community events.
 - ☞ Use popular women to be the guest speaker and be the first ones to be screened on the first day of cervical cancer screening campaign in order to motivate other women to be screened.
 4. **Health record kept by individual patient only?**
 - ☞ Improving the present clinic patients record keeping to electronic record keeping system and making the records accessible to both public and private health workers.

EXPLORING OPPORTUNITIES

Questions from Intervention Strategy 3: Exploring Opportunities

1. **Will the strategy of using the available day-to-day items assist in transmission of information?**
 - ☞ Making a deal with companies that produce these items so that they write cervical cancer information on those items, for example, refrigerator magnets, grocery plastic bags, sanitary pads, family planning pills containers, chappies and sweets wrappers, cosmetics, condom packets, baby products, boards along the road and public areas, you name them.
2. **Will this strategy address the problem of available scheduled transport?**
 - ☞ Identifying areas that are affected by scheduled transport so that they treat them first in order to accommodate the schedules.
3. **Will partnership with others and community engagement promote utilization of cervical cancer screening services?**
 - ☞ Working in partnership all the cell phone Networks companies, for example, Vodacom, MTN, Cell C and 8ta so that they can assist with transmission of information. They can write cancer related information on the airtime slips,
 - ☞ Make an automatic voice message heard when you have dialed their information center or add cancer-related information when receiving a Please Call Me messages etc.
 - ☞ Learning to use the methods used by civic organization and the chief to pass information to the whole community or village at once.
4. **Will the strategy of giving incentives motivate women to come for cervical cancer screening?**
 - ☞ - Identifying incentives that are of value to women and PHCNs and manager

MITIGATION OF THREATS

Questions from Intervention Strategy 4: Mitigation of Threats

1. **Will these strategies help to address women who has misconceptions about what Pap smear is?**
 - ☞ The PHCN should always document the misconceptions and the clarifications thereof and make the document accessible to women who came to the clinic for consultation.
 - ☞ Each time when the PHCN gives a health education about cervical cancer he/she must invite and address those misconceptions.
2. **Will these strategies help women who are not educated?**
 - ☞ The home based carers and community health workers going around communities teaching about cervical cancer.
3. **Will these strategies help women who are not employed?**
 - ☞ Working hand in hand with the community developer empowering women by new skill development.
4. **Insufficient material for provision of cervical cancer screening services?**
 - ☞ Identifying the problems that are there in the procurement process method as outlined in accordance with the Public Finance Management Act (PFMA) 1 of 1999 and follow the correct channels of communicating this to the correct forum
5. **Staff shortage?**

- ☞ The government creating more posts for both PHCNs who are trained or not trained to do Pap smear at the clinics.
 - ☞ The government improving the Pap smear training courses programme in such a way that it addresses the present shortage
- 6. Distance to the clinic is too long?**
- ☞ Building more clinic in areas where there is a need.
- 7. Poor family support to women who are supposed to go for cervical cancer screening?**
- ☞ Teaching families on how to support their female members in cervical cancer screening matters and encourage.
- 8. Lack of support of women by their husbands?**
- ☞ Teaching boys and girls about cervical cancer while they are still at school.
 - ☞ Using “Munna ndi nnyi” (Who is the real man?) groups and churches to encouraging men to support their wives physically, mentally and financially and that they visit the clinic with their wives and see what is being done.
- 9. Will these strategy address the barrier for some women who do not go for screening by a male PHCN?**
- ☞ Allocating a female PHCN substitute when a male PHCN is allocated for screening.
- 10. Will these strategies help to alleviate the women’s fear of being screened?**
- ☞ Showing these women videos on how Pap smear is done, referring these women to other women who have been done Pap smear so that they can share their experience with them.

ANNEXURE J

CONFIRMATION BY LANGUAGE EDITOR



FACULTY OF NATURAL SCIENCES

DEPARTMENT OF MEDICAL BIOSCIENCES

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15 February 2017

To Whom it May Concern

This serves to confirm that I have edited the language, spelling, grammar and style of the PhD thesis by **Elisa Naledzani Vhuromu**, titled: “**Intervention Strategy to Promote Utilization of Cervical Cancer Screening Services at Vhembe District in Limpopo Province**” The manuscript was also professionally typeset by me.

Sincerely Yours



Cert. Freelance Journalism, Dip. Creative Writing, MSc (Medicine), PhD