

**PERCEPTIONS, KNOWLEDGE AND ATTITUDES OF WOMEN UNDERGOING
CERVICAL CANCER SCREENING IN OMAHEKE, NAMIBIA**

by

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DECLARATION

I declare that **PERCEPTIONS, KNOWLEDGE AND ATTITUDES OF WOMEN UNDERGOING CERVICAL CANCER SCREENING IN OMAHEKE, NAMIBIA** is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references and that this work has not been submitted before for any other degree at any other institution.



19 February 2016

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ABSTRACT

The purpose of the study was to explore perceptions, knowledge and attitudes of women undergoing cervical cancer screening in Omaheke, Namibia. A qualitative exploratory study was conducted. Data were collected from a purposive sample of eight participants using a self-developed interview guide. Data were analysed using Tesch's descriptive method of open coding. Three themes were identified namely; cervical cancer as a disease, perception of cervical cancer and service delivery at the facility. The findings also revealed some suggestions for the facility that could improve screening uptake. The study proposes a community education programme on cervical cancer and related topics to be covered during health education sessions. In addition the study recommends the Omaheke directorate to look into operational issues in order to facilitate access to cervical cancer screening.

KEY CONCEPTS

Cervical cancer; cervical cancer screening; perceptions of cancer; knowledge and attitudes towards cancer

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I would like to thank God almighty for grace that has brought me this far.

Dedication

I dedicate this to my family, Iven and our daughters Jo-May and Joy.

Thank you for your love support and understanding.

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LIST OF ABBREVIATIONS

AIDS	Acquired Immune-Deficiency Syndrome
CBHPs	Community Based Health Persons
CDC	Centers of Disease Control and Prevention
DRC	Democratic Republic of Congo
DNA	Deoxyribonucleic Acid
FIGO	International Federation of Gynecology and Obstetrics
HAART	Highly Active Anti-Retroviral
HIV	Human Immunodeficiency Virus
HPV	Human Papilloma Virus
IEC	Information, Education and Communication
LBC	Liquid-Based Cytology
MoHSS	Ministry of Health and Social Services
NDHS	National Health Demographic Survey
Pap	Papanicolau
PDR	People's Democratic Republic
VIA	Visual Inspection with Acetic
WHO	World Health Organization

CHAPTER 1

INTRODUCTION TO THE STUDY

1.1 INTRODUCTION

Cervical cancer is a disease where cells of the cervix grow abnormally and if left untreated they become malignant (Centers for Disease Control and Prevention (CDC) 2013). The early stage of cervical cancer is usually asymptomatic but signs and symptoms such as abnormal vaginal bleeding, abnormal vaginal discharge and urinary or rectal pressure may occur as the disease progresses (Dunleavey 2009:17).

Most cervical cancer cases can be prevented by early detection through regular screening and treatment of precancerous lesions as well as Human Papilloma Virus (HPV) screening and vaccination (Vera 2012:158). Acquisition and persistence of HPV increases in Human Immunodeficiency Virus (HIV) positive women and other forms of immune-suppression and therefore more regular screening is recommended in such populations (Williamson 2015:580).

HPV is the primary underlying cause of cervical cancer (Lockwood 2009:261; Maree, Lu & Wright 2012:79). HPV is a common virus that is transmitted sexually or through skin to skin contact (McCance & Huether 2013:934). There are more than 120 identified types of HPV of which 2 types (16 and 18) are considered high risk and responsible for more than 70% of all cervical cancer cases (Poljak 2012:64). However, some HPV types like 6 and 11 only cause genital warts also known as condylomata acuminata (Dunleavey 2009:11). The Guidelines for the Management of Sexually Transmitted Infections using the Syndromic Approach for Namibia guideline (Namibia 2009:3) states that most HPV infections resolve spontaneously but in some women the infection persists and may lead to the development of pre-cancer and cancer of the cervix.

According to Circular [55] of 2010, the Ministry of Health and Social Services (MoHSS) of Namibia recommends that Papanicolou (Pap) smear should be done to eligible patients/women who meet the criteria as follows:

- women who are sexually active
- infected with HIV should be screened at yearly interval irrespective of age
- aged 25-49 years should be screened at a 3 year interval
- aged 50 and above should be screened at a five year interval
- aged 65 and above who are HIV negative, if Pap smear is negative at 65 years or above it is not necessary to do another Pap smear
- aged 15 to 25 years should be done Pap smear 3 years after their first sexual contact (Namibia 2010:3)

In addition, the Guidelines for Management of Sexually Transmitted Infections using the Syndromic Approach states that all eligible women presenting in all health facilities, a Pap smear should be done as part of physical examination (Namibia 2009:6). Furthermore the postnatal care circular [1] of 2013 indicates that all postnatal women should be screened for cervical cancer 6 weeks after delivery (Namibia 2013:21). However, Maree et al (2012:79) states that it is of no use to have a national cancer screening programme if the women are not empowered with knowledge of the disease.

Markovic and Markovic (2008:41) state that, cervical cancer is a preventable disease if detected early. Cervical cancer can be prevented by early detection through use of one of the following methods, Pap smear or HPV DNA testing which has been identified as the most important cervical cancer preventing strategy (Ntekim 2012:60). However, these methods are not readily available in sub-Sahara due to challenges of infrastructure, laboratory technicians and financial support. Other methods include Visual Inspection with Acetic acid (VIA) or Visual Inspection using Lugol's Iodine (VILI) may become an alternative screening tool as it is simple, easy, rapid to administer, does not need many instructions, cost effective and results are available immediately (Saleh 2013:191).

Women's perceptions, knowledge and attitudes towards cervical cancer and screening have been found to influence their decision to be screened (Oshima & Maezawa 2013:4317). In a study conducted in rural Moshi district, Tanzania, to identify the most important factors related to the uptake of cervical cancer screening it was identified that knowledge of cervical cancer and its prevention and distance from the facility were strongly associated with screening uptake (Lyimo & Beran 2012:1). However, no studies

have been conducted on perceptions, knowledge and attitudes of women undergoing cervical cancer screening in Namibia. More so similar studies could not be found in Omaheke, Namibia.

1.2 BACKGROUND TO THE RESEARCH PROBLEM

Globally there are an estimated 528 000 cases of cervical cancer each year with 266 000 deaths in 2012. In sub-Saharan Africa, 34.8 new cases of cervical cancer are diagnosed per 100 000 women annually, and 22.5 per 100 000 women die from the disease compared to 6.6 and 2.5 women respectively in North America (World Health Organization (WHO) 2013a:2: Globocan 2012:2). Ntekim (2012:54) states that the true incidence of cervical cancer in most African countries is not known due to gross under reporting as a result of non-existence of cancer registers.

According to the WHO (2014a:1), cervical cancer screening uptake remains low in developing countries owing to lack of resources. In addition Denny and Anorlu (2012:1437) state that prevalence of cervical cancer in Sub-Saharan Africa is still high due to competing health needs as most of these countries still lack services for prevention, early diagnosis and treatment. In addition cytology is still a stigmatised procedure in certain parts of Africa (Katz & Wright 2006:1110). Furthermore there is still poor knowledge of cervical cancer among women in Southern Africa (Ntekim 2012:59).

Omaheke is a vast region in the eastern side of Namibia bordering Botswana with an estimated in 2015 a total population of 72668 and 15901 women aged 15 to 49 years according to 2011 population census with a projected annual growth rate of 0.5% (Namibia 2011b:1). There are 13 clinics, 1 health centre and 1 hospital in the region. Pap smears are currently the method used for cervical cancer screening.

Improvements have been made in the region to improve Pap smear uptake like ensuring that the staff establishment of health facilities are filled as well as ensuring equipment such as lamps, speculums, slides and Pap smear brushes are always available. However, screening uptake in Omaheke remains low even among women visiting health facilities regularly for other services such as family planning and anti-retroviral treatment and cancers screening with only 250 Pap smears conducted at

Epako clinic in the year 2014 out of an estimated 5000 expected Pap smears for the same year (Namibia 2014:156).

1.3 STATEMENT OF THE RESEARCH PROBLEM

The researcher worked in Omaheke region for more than eight years from 2008 to date in the clinical setting conducting Pap smears weekly. The observation was that most the women who seek Pap smear would mention issues such as the use of Pap smear to clean the womb and opening of the uterus to help in conception as their reason for coming to the health facility for a Pap smear. According to a report from Namibia (2014:56), malignant neoplasm of cervix uteri, uterus and ovaries were the second highest cause of cancer admission in Namibia after breast cancer from 2012 to 2013. This ranking of cervical cancer is worrisome considering the low screening coverage as these figures could be higher, with higher screening coverage.

From April 2013 to March 2014 Omaheke had 1445 deliveries and 948 Pap smears were done. This figure is very low considering that the post-natal coverage for the same year was 1387. According to 2013 facility Pap smear register at Epako, the biggest primary health care clinic in Omaheke, Namibia, with an estimated 6983 women of child bearing age (15 to 49) only 250 Pap smears were conducted from April 2012 to March 2013. Of the 250 Pap smears conducted results showed that 7 women had precancerous and 2 had cancer lesions. These statistics show Pap smear coverage of about 4% for Omaheke region among women of child bearing age, these statistics, however, do not include Pap smears done at private facilities.

In addition 1387 of women attended post-natal care of the estimated 19734 women of child bearing age in the region in 2013. Thus the percentage of women who had Pap smears done in Omaheke is about 5% (n=16 000) compared to the 25% (n=629 954) for the whole nation (Namibia 2013:56). Furthermore, 6195 of women of child bearing age who attended health facilities for family planning services could have benefited from cervical cancer screening services. Also more women visited the health facilities for other services such as treatment of other illnesses whose statistics are not available because the tool used to capture the data does not distinguish between male and female in such instances (Namibia 2014:39-56). Pap smear coverage for Omaheke

region is critically below WHO's target coverage for cytology screening which is set at 70-80% and above every 5 years (WHO 2013b:7).

In 2010 the Ministry of Health and Social Services (MoHSS) developed guidelines for Pap smear and in collaboration with Cancer Association of Namibia conducted a nationwide training of registered nurses to conduct Pap smears. Additionally the MoHSS conducted a nationwide needs assessment to identify the specific steps that need to be taken to reduce the burden of disease due to reproductive system cancers which are breast, cervical and prostate. The assessment revealed that awareness of cervical cancer among members of the community was low and that the full extent of reproductive cancers in Namibia is not known (Namibia 2011a:77). According to the National Health Demographic Survey (NDHS) 2013 report, 66% of women in Namibia had heard about Pap smear while only 25% had been screened for cervical cancer (Namibia MoHSS & ICF International 2014:156).

Omaheke region has one district hospital which does not have gynaecology or oncology departments and therefore all patients or women with cervical cancer or other cervical abnormalities are referred to Windhoek Central hospital or Intermediate Hospital Katutura which is 200km away. The two hospitals serve the rest of Namibia which makes the referral process slow. Perceptions, knowledge and attitudes of women undergoing cervical cancer screening are of public health concern because morbidity and mortality of cervical cancer can effectively be reduced through early screening (Urasa & Darj 2011:49). It is therefore of importance that perceptions, knowledge and attitudes of women undergoing cervical cancer screening in Omaheke, Namibia be studied in an effort to improve women's uptake of screening aimed at reducing morbidity and mortality from the disease.

Despite efforts by MoHSS using guidelines for cervical cancer screening, provision of equipment and free Pap smears for women in Namibia, Omaheke region still has low cervical cancer screening uptake and hence the need to explore perceptions, knowledge and attitudes of women recruited for cervical cancer screening in order to understand and improve uptake in the region.

1.4 RESEARCH PURPOSE

A research purpose is a description of what the researcher hopes to attain through the research study (Profetto-McGrath, Polit & Beck 2010:93). The purpose of this study was to attain an understanding of the perceptions, knowledge and attitudes of women undergoing cervical cancer screening in Omaheke, Namibia.

1.5 RESEARCH OBJECTIVES

Research objectives are formulated to guide research and therefore reflect what the study sets to achieve (Burns & Grove 2010:150). The objectives of this study were to:

- explore perceptions of women in Omaheke regarding cervical cancer screening
- describe knowledge and attitudes of women undergoing cervical cancer screening in Omaheke, Namibia
- propose an education programme aimed at improvement of cervical cancer screening

1.6 DEFINITIONS OF KEY CONCEPTS

This section seeks to define, introduce and explain the key concepts. For the purpose of this study the following terms are used as defined below.

1.6.1 Knowledge of cervical cancer screening

Knowledge of cervical cancer screening refers to women's knowledge that Pap smear is used to screen for cervical cancer for prevention, early detection and treatment.

1.6.2 Perceptions about cancer screening

Perceptions about cancer screening refer to women's understanding of severity of cervical cancer and how the women view themselves to be at risk of developing the disease.

1.6.3 Attitudes pertaining to cancer screening

An attitude is a person's reaction towards an object and can be affective, cognitive or behavioural (Fennis & Stroebe 2010:113). For the current study attitudes pertaining cervical cancer refer to women's cognitive reaction towards cervical cancer screening which includes beliefs, opinions and ideas about cervical cancer screening and the preferred changes that the women feel would encourage them to be screened for cervical cancer.

1.6.4 Women undergoing cervical cancer screening

Women undergoing cervical cancer screening refer to women recruited for Pap smear or visiting the clinic to obtain Pap smear results.

1.7 SIGNIFICANCE OF THE STUDY

This study is intended to shed light on the reasons for low uptake of cervical cancer screening in Omaheke Region and therefore improve screening uptake.

This study hopes to contribute to the knowledge and practice of public health and public health research in particular promotion and prevention of cervical cancer.

1.8 RESEARCH METHODOLOGY

This section briefly describes the qualitative exploratory design used in the study. More details will be discussed in Chapter 3.

1.8.1 Research design

The study utilised a qualitative exploratory design to guide data collection aimed at exploring women's perception, knowledge and attitudes towards cervical cancer screening in Omaheke Region in Namibia. Exploratory design helped shed more light on the various ways in which the phenomena manifests (Polit & Beck 2012:21).

1.8.2 Population

Population is the entire set of objects or people which is the focus of a research study and about which the researcher wants to determine some information (Macnee & MacCabe 2008:116-117). The target population for the study was all women who met the criteria for cervical cancer screening in Omaheke.

1.8.3 Sample and sampling method

Purposive sampling was used to select the participants for the study. The sample of the study was not pre-determined but depended on data saturation.

1.8.4 Data collection

An interview guide developed by the researcher was used to collect data. Questions aimed at getting an in-depth understanding of women's perception, knowledge and attitudes of women undergoing cervical cancer screening on cervical cancer and screening in Omaheke region in Namibia. The interview questions were pre-tested and necessary changes to interview guide were made. Data were collected until no new information emerged, meaning that data saturation was reached.

1.8.5 Data analysis

Data were analysed using Tesch's descriptive framework of open coding (in Creswell 2009:186). Data obtained from in-depth face to face interviews were analysed into themes, sub-themes and meaning units and three themes were identified.

1.9 ETHICAL CONSIDERATIONS

The following ethical issues were considered in order to ensure that the rights of the participants were observed (Burns & Grove 2009:184):

- Ethical clearance was obtained from the Higher Degrees committee of the Department of Health studies, University of South Africa.

- Permission to collect data was obtained from the Permanent Secretary of Ministry of Health and Social Services in Namibia.
- Informed consent was obtained from participants 18 years and above who agreed to participate and signed a consent form. Explanation was given to the participants that they were free to refuse to participate or withdraw from the interview at any time without facing any penalties affecting services what so ever given to them at the facility. Due to sensitivity of the topic individual interviews were conducted in a private room at the clinic. A room marked private was used for the interviews. Privacy was maintained throughout the study. No names appeared on recorded interviews or data analysis sheets. Further ethical considerations are described in Chapter 3.

1.10 MEASURES TO ENSURE TRUSTWORTHINESS

Trustworthiness of the design is what persuades others that the findings reported are worth paying attention to (Tappen 2010:153-161). This study utilised credibility, dependability, transferability and conformability to ensure trustworthiness. Each measure is discussed in full in Chapter 3.

1.11 CONCLUSION

This chapter outlined the introduction to the study, the statement of the problem the purpose and objectives of the study as well as a brief description of the research method. Chapter 2 will discuss the review of literature pertaining to cervical cancer.

1.12 ORGANISATION OF CHAPTERS

Chapter 1: Introduction to the study

Chapter 2: Literature review

Chapter 3: Research methodology

Chapter 4: Findings and discussions of the study

Chapter 5: Conclusions, recommendations and limitations

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter reviews various aspects that relate to perceptions, knowledge and attitudes of women undergoing cervical cancer screening. It discusses literature on the epidemiology of cervical cancer, causes and risk factors for developing the disease, development, screening, prevention, diagnosis and staging as well as treatment of cervical cancer and knowledge, perceptions and attitudes on cervical cancer and screening. In this study literature was reviewed to focus the study (Streubert & Carpenter 2011:25).

2.2 CERVICAL CANCER

Cervical cancer is a disease that develops in the female reproductive system. Cervical cancer often starts in the cells lining the cervix which is the lower part of the uterus (Agarwal, Fatima, Alok, Singh & Verma 2013:2067). The cervix is the part that connects the uterus to the vagina. The cervix is covered by 2 main types of cells which are the squamous cells and the glandular cells. The zone where the 2 types of cells meet is called the transformation zone which is vulnerable to the oncogenic effects of HPV and most of the cervical cancer begins in this zone (Verma & Singh 2013:99-100).

There are two main types of cervical cancers which are squamous cell carcinoma and adenocarcinoma. Squamous cell carcinoma accounts for 70-80% of all cervical cancers (Colombo, Carinelli, Colombo, Marini, Rollo & Sessa 2012:27). Squamous cell carcinomas usually begin at the transformation zone of the cervix. Adenocarcinomas account for about 20% of cervical cancers (Patel, Saraiya, Copeland, Cote, Datta & Sawaya 2013:84). Cervical adenocarcinoma develops from the mucus-producing gland cells of the endocervix (Colombo et al 2012:28). This type of cervical cancer is becoming more common in the past 20–30 years. A combination of the two types are rarely seen where cervical cancer presents with features of both squamous cell carcinoma and adenocarcinoma is called adenosquamous carcinoma (Verma & Singh 2013:99). HPV 18 is more common in adenocarcinomas and adenosquamous

carcinomas than in squamous cell carcinomas (Colombo et al 2012:28). Although almost all types of cervical cancer are either squamous cell carcinoma or adenocarcinoma other types of cancer which are common in other parts of the body can occur such as melanoma, sarcoma and lymphoma (Verma & Singh 2013:99).

2.2.1 Epidemiology of cervical cancer

Cervical cancer is a disease that develops in the female reproductive system where the cells of the cervix become malignant (Jones & Lopez 2013:36). The primary cause of cervical cancer is infection with HPV. Cervical cancer is an important public health problem and it is the third most common cancer worldwide (WHO 2015:3). In 2012 there were 528 000 new cases of cervical cancer and about 266 000 women died of the disease worldwide. In addition more than 70% of the cases occur in women from medium and low resource settings (Globocan 2013:2; WHO 2013b:3).

According to Ali, Kuelker and Wassie (2012:1), cervical cancer is one of the leading causes of cancer-related morbidity and mortality among women in Sub-Saharan Africa and this can be attributed to inadequacy of screening programmes and a high prevalence of HIV. In 2012, 34.8 per 100 000 women were diagnosed with cervical cancer and 22.5 per 100 000 women died of cervical cancer compared to 6.6 and 2.5 per 100 000 Sub-Saharan and Africa North America respectively in (Globocan 2013:2; WHO 2013a:2).

According to the Human Papillomavirus and related cancers fact sheet of 2013, it is estimated that about 132 women are diagnosed with cervical cancer and 59 die of the disease each year in Namibia which has an estimated population of 2.1 million. In addition cervical cancer ranks as the second cause of female cancer and is the third most common female cancer in women aged 15 to 44 years in Namibia (HPV Information Centre 2015:6).

Several determinants of cervical cancer rates among countries have been identified. Geography, religion, culture and socio-economic factors such as level of literacy, marital status have been shown to influence cervical cancer rates (Mupepi, Sampsel & Johnson 2011:949). The differences in cervical cancer rates between developed and

developing countries are due to levels of human development, economic resources and the capacity to sustain a national cervical cancer programme (Ali et al 2012:2-3).

2.2.1.1 Causes and risk factors of developing cervical cancer

Cervical cancer is caused primarily by persistent infection with monogenic HPV. According Verma and Khanna (2013:97) HPV is a common sexually transmitted infection with an estimated 50% to 80% of all sexually active women infected by the virus. In addition there are more than 100 types of HPV and at least 15 types can cause cancer of the cervix and of these HPV types 16 and 18 are found in 70% of all invasive cervical cancers. A study conducted in Brazil to provide updated comprehensive data about the HPV types' distribution in patients with invasive cervical cancer found that 99% of the 172 valid samples were positive for HPV type 16 and 18 (De Oliveira, Fregnani, Carvalho, Longatto-Filho & Levi 2013:357). However, HPV on its own is insufficient to cause malignant disease but a variety of cofactors and molecular changes influence whether cancer will develop or not (Gomez & Santos 2007:685). HPV infections are transient and a woman infected with HPV can remain negative and most of the infections resolve within 2 years (Juckett & Hartman-Adams 2010:1209). Most people infected are asymptomatic but they can still transmit the virus to their partners and if they should develop symptoms depends on the type of HPV and the location of the transmission (Verma & Khanna 2013:97).

Other risk factors for developing cervical cancer include early age sexual debut, early pregnancy, multiple sex partners, smoking, use of oral contraceptives, high parity and viral infections such as herpes and HIV (Louvanto, Rintala, Syrjanen, Grenman & Syrjanen 2010:437). Cervical cancer was recognised as an Acquired Immune-Deficiency Syndrome (AIDS)-defining illness and a leading cause of mortality in HIV-positive women by the United States Centers for Disease Control and Prevention (CDC 2008:1). A study conducted in India to assess the prevalence of Pap smear abnormalities and to characterise the associated risk factors in HIV sero-positive women concluded that HIV/AIDS is associated with a two-fold increased risk of cervical cytology abnormalities and hence the need for periodic Pap smear for sero-positive women (Devi & Priya 2013:57; Franceschi & Jaffe 2007:510). However, results of a study conducted on 2 501 HIV positive women in Nigeria in 2013 showed a 6% prevalence of pre-cancer and cancer prevalence which is much lower than reports from

other parts of Africa. In addition results of the study show that in Nigerian HIV positive women are marginally at an increased risk of pre-cancer and cancer (Ononogbu, Almuftaba, Modibbo, Lawal, Offiong, Olaniyan, Dakum, Spiegelman, Blattner & Adebamowo 2013:582).

2.2.2 Development of cervical cancer

Cervical cancer arises due to cellular changes known as dysplasia at the transformation zone of the cervix. The transformation zone is the area between the original and the new squamo-columnar junction epithelium is being or has been replaced by squamous epithelium and its location on the cervix is variable (Buy & Ghossain 2013:652). The squamo-columnar junction is the result of a continuous re-modeling process resulting from uterine growth, cervical enlargement and hormonal status (Buy & Ghossain 2013:652). The transformation zone is especially susceptible to carcinogenesis (Schiffman & Wentzensen 2013:553).

Cervical cancer develops slowly and has upto 15 to 20 years of natural history of mild dysplasia to progress to invasive cancer in women with normal immune systems and 5 to 10 years in women with weakened immune systems (WHO 2013a:7). The pre-cancerous stages of cervical dysplasia are often asymptomatic and therefore the need for screening and early detection (Adams, Wise-Draper & Wells 2014:1799). If left untreated cervical cancer can spread through direct extension, lymphatic metastasis, blood borne metastasis and intraperitoneal implantation (Rajaram, Chitrathara & Mehashwari 2012:115). It is therefore important to screen women for cervical cancer for prevention and early detection and treatment of the disease.

2.2.3 Prevention of cervical cancer

Primary prevention of cervical cancer is possible through vaccination against HPV and healthy lifestyles such as use of condoms and reduction of sexual partners (Waller, Marlow & Wardle 2006:1257). Prevention of cervical cancer is important and this can be achieved by avoiding transmission of HPV, HPV vaccination. A case-control study conducted in Australia to measure the effectiveness of quadrivalent HPV vaccine against cervical abnormalities 4 years after implementation of the national vaccination programme shows that the vaccine confers a statistically significant protection against

cervical abnormalities (Crowe, Pandeya, Brotherton, Dobson, Kisely, Lambert & Whiteman 2014:348). HPV vaccine is available in the private sector, however, national HPV vaccination programmes are not yet available in most developing countries including Namibia (Southern Africa Litigation Centre 2012:30). Additionally health education and awareness-raising programme to reduce high-risk sexual behaviours and discourage tobacco use which is known to cause cervical cancer and other cancers are important in reducing prevalence of cervical cancer.

Secondary prevention of cervical cancer is screening and early treatment of abnormalities detected aimed at early diagnosis of precancerous lesions followed by adequate treatment while tertiary prevention involves diagnosis and treatment of identified cases which will be discussed in the following sections.

2.2.4 Cervical cancer screening

Early cervical cancer is often asymptomatic while locally advanced disease could cause symptoms including abnormal vaginal bleeding, abnormal vaginal discharge, pelvic pain, and dyspareunia (Colombo et al 2012:28). Aschengrau and Seage (2013:13) state that cancer screening test must be valid, reliable, sensitive and specific, it should have good predictive value and it should be able to detect the condition at an early stage whilst it is treatable. In addition the WHO (2013:2) describes cervical cancer death as an avoidable death. Low-tech inexpensive tools can be used to effectively reduce the burden of cervical cancer in low resource setting (Sankaranarayanan in WHO 2013a:2).

In developing countries programmes to prevent cervical cancer have been difficult to implement owing to lack of resources resulting in low cervical cancer screening coverage (Denny, Quinn & Sankaranarayanan 2006:71). According to WHO (2015:13) to effectively prevent cervical cancer 70-80% of the targeted women should be screened every 5 years. However, screening uptake remains low even in developed countries with screening programmes (WHO 2015:2). Results of a study conducted in Mahalapye, Botswana to describe women's perceived benefits regarding cervical cancer and their association with socio-demographic characteristics, showed a 39% cervical cancer screening rate (Ibekwe, Hoque & Ntuli-Ngcobo 2010:1026). According the NDHS only 25% of Namibian women aged 15-49 years were screened for cervical

cancer in 2013 despite the availability of a national cancer screening programme (Namibia MoHSS & ICF International 2014:256).

There are three types of cervical cancer screening methods available which include cytology based screening using Pap smear or Liquid-Based Cytology (LBC), VIA or VILI and molecular screening method using HPV Deoxyribonuclei Acid (DNA) testing for high-risk HPV types (WHO 2014b:248; Ghosh, Gandhi, Kochhar, Zutshi & Batra 2012:265). Different screening methods may be used to screen for cervical cancer, however, feasibility relies with on availability of resources such as infrastructure and affordability.

2.2.4.1 Pap smear

Pap smear is the procedure where cells from the cervix are collected and examined under a microscope to detect pre-cancer and cancer cells with the aim of prevention and early detection of cervical cancer (Nandini, Nandish, Pallavi, Akshatha, Chandrashekar, Anjali & Dhar 2012:3646). About 80% of cervical cancer cases can be reduced by early detection through Pap smear (Mehta, Kotadiya, Edwin, Patel & Patel 2013:68). Pap smear (cytology) test has been used in large populations and has been shown to reduce cervical cancer incidence and mortality (Sherris, Wittet, Kleine, Sellors, Luciani, Sankaranarayanan & Barone 2009:147-148). However, sustaining high-quality cytology-based programmes is difficult in low-resource settings and therefore the most efficient and effective strategy for detecting and treating cervical cancer precursors in low-resource settings is to screen using either VIA or HPV DNA testing and then to treat using cryotherapy (freezing) (Sherris et al 2009:148). In addition there is uncertainty of women returning for Pap smear results (Maree, Lu, Mosalo & Wright 2009:78). Furthermore, Denny and Arnolou (2012:1435) state that Pap smear has lost its dominance in cervical cancer screening due to variability in test performance characteristics. Studies show that specificity and sensitivity of VIA and Pap smear are comparable (Albert, Oguntayo & Samalia 2012:262; Consul, Agrawal, Sharma, Bansal, Gutch & Jain 2012:165).

Namibia has a national cervical cancer screening programme using Pap smear (Namibia 2010:1-4). A Pap smear tests for pre-cancers and cell changes that can become cancer. During a Pap smear procedure a speculum is inserted into the vagina

to widen the vagina and allow visualisation and examination of the cervix. Cells and mucus from the cervix are then collected and sent to the laboratory to check if cells are normal (Nandini, Nandish, Pallavi, Akshatha, Chandrashekhar, Anjali & Dhar 2012:3646). According to Rajaram et al (2012:19), for effective Pap smear the following minimum requirements are needed:

- Well-trained health care providers, including nurses, midwives, and physicians' assistants.
- Examination rooms and laboratories stocked with the necessary supplies and equipment such as speculums, examination lights, slides, examination gloves and microscopes.
- Linkages, including transportation, to reliable laboratories with appropriately trained technicians.
- Strategies for ensuring the quality of Pap smear samples and the accuracy of interpreting them.
- Proven systems for timely communication of Pap smear results to screened women and patient/client follow-up systems that are established.
- Effective referral and follow-up systems for diagnosis and treatment of abnormalities.

2.2.4.2 VIA/Direct Visual Inspection

Cervical cancer can be screened using VIA. VIA also known as Direct Visual Inspection (DVI), involves examination of the cervix with the naked eye using a bright light source after 1 minute of 3-5% acetic acid application using a cotton swab or spray (Denny et al 2006:S73). Maree et al (2009:78) describe VIA as a low-cost intervention which can be performed with modest equipment, does not require laboratory infrastructure and can be performed by trained doctors, nurses and midwives. According to Saleh (2013:189), VIA is an affordable procedure which provides immediate results and can be used as a preliminary test for mass screening in low-resource settings with further tests being done on women who tests positive. In addition results of VIA tests are immediately available after screening. However, various sensitivity and specificity have been observed due to various reasons that can include man power training, light source used

for visualisation, preparation and storage of the acetic acid (Parashari & Singh 2013:7762).

2.2.4.3 HPV DNA testing

HPV testing can be used to improve cervical cancer screening. HPV testing is used to detect what causes cervical cancer and so can be used to screen for cervical cancer with Pap smear or can be used where Pap smear results are not clear (WHO 2014b:129). HPV DNA testing is used to detect viral DNA (Hesselink, Berkhof, Van der Salm, Van Splunter, Geelen, Van Kemenade, Bleeker & Heideman 2014:890). The WHO (2014b:9) states that the HPV DNA testing and VIA are cost-effective measures to reduce cervical cancer and that it can be implemented in low resource settings.

2.2.4.4 HPV vaccination

HPV vaccination is a primary prevention method targeted at girls aged 9 to 13 years. There are two vaccines available and they both prevent 95% of HPV infections caused by HPV types 16 and 18 (WHO 2013b:4). Although the human papillomavirus vaccination programmes are successful, some girls are still not being vaccinated. In addition, the programme may have a negative impact on the uptake of screening, as some women may not realise they are still vulnerable to cervical cancer after vaccination and therefore the need for nurses to encourage women to take up both HPV vaccination and cervical screening in areas where vaccination is available (Katz & Wright 2006:1110). However, HPV testing and vaccination is not available to all women especially in the developing countries like Namibia.

2.2.5 Diagnosis and Staging of cervical cancer

Invasive cervical cancer is generally diagnosed based upon a cone biopsy done following an abnormal Pap smear and colposcopy. Colposcopy is a way of examining a cervix using a special magnifying device to look at the vulva, vagina, and cervix (Sahoo, Satyarayana, Nayak, Sahoo & Champati 2014:332). If a problem is seen during colposcopy, a small sample of tissue (biopsy) may be taken from the cervix or from inside the opening of the cervix (endocervical canal) for further examination in the laboratory (Saboo, Rana, Tapadiya & Khadabadi 2013:331). Invasive cancer can be

staged (Hodler, Kubik-Huch, Von Schulthess & Zollikofe 2014:164). Staging and stage-appropriate treatment are important in management of cervical cancer (Rajaram et al 2012:114). The International Federation of Gynaecology and Obstetrics (FIGO) is the most widely used way of staging. According to (Rajaram et al 2012:115), cervical cancer FIGO staging is as follows:

Table 2.1: FIGO staging

Stage I
<p>Stage I is carcinoma strictly confined to the cervix; extension to the uterine corpus should be disregarded. The diagnosis of both Stages IA1 and IA2 should be based on microscopic examination of removed tissue, preferably a cone, which must include the entire lesion.</p> <p>Stage IA: Invasive cancer identified only microscopically. Invasion is limited to measured stromal invasion with a maximum depth of 5 mm and no wider than 7 mm.</p> <p>Stage IA1: Measured invasion of the stroma no greater than 3 mm in depth and no wider than 7 mm diameter.</p> <p>Stage IA2: Measured invasion of stroma greater than 3 mm but no greater than 5 mm in depth and no wider than 7 mm in diameter.</p> <p>Stage IB: Stage IB: Clinical lesions confined to the cervix or preclinical lesions greater than Stage IA. All gross lesions even with superficial invasion are Stage IB cancers.</p> <p>Stage IB1: Clinical lesions no greater than 4 cm in size.</p> <p>Stage IB2: Clinical lesions greater than 4 cm in size</p>
Stage II
<p>Stage II is carcinoma that extends beyond the cervix, but does not extend into the pelvic wall. The carcinoma involves the vagina, but not as far as the lower third.</p> <p>Stage IIA: No obvious parametrial involvement. Involvement of up to the upper two-thirds of the vagina.</p> <p>Stage IAB: Obvious parametrial involvement, but not into the pelvic sidewall</p>
Stage III
<p>Stage III is carcinoma that has extended into the pelvic sidewall. On rectal examination, there is no cancer-free space between the tumour and the pelvic sidewall. The tumour involves the lower third of the vagina. All cases with hydronephrosis or a non-functioning kidney are Stage III cancers.</p> <p>Stage IIIA: No extension into the pelvic sidewall but involvement of the lower third of the vagina.</p> <p>Stage IIIB: Extension into the pelvic sidewall or hydronephrosis or non-functioning kidney.</p>

Stage IV

Stage IV is carcinoma that has extended beyond the true pelvis or has clinically involved the mucosa of the bladder and/or rectum.

Stage IVA: Spread of the tumour into adjacent pelvic organs.

Stage IVB: Spread to distant organs.

Cervical cancer is a disease that has an in situ stage that can be treated but progresses to invasive disease that is always fatal in countries where appropriate surgery and radiotherapy are not available (Camileri & Blundell 2009:9). Cervical cancer diagnosis has a lot of psychological implications including emotional trauma, strain of intimacy and relationships (Baze, Monk & Herzog 2008:13).

2.2.6 Treatment of cervical cancer

Tertiary prevention or treatment of cervical cancer focuses on minimising disability and spread of the cancer (Ricci & Kyle 2009:234). Treatment of cervical cancer is effective if the disease has not progressed (Colombo et al 2012:30). Cervical cancer or cervical cell abnormalities that have been identified early can be treated successfully. Treatment options available include surgical removal of the lesion, radiotherapy, chemotherapy or a combination depending on the stage of the disease (Shrivastava, Mahantshetty & Narayan 2012:155). The goal of treatment is to remove the cancer as much as possible where cure is not possible in order to make the patient live longer and feel better but sometimes treatment aims at relieving symptoms which is referred to as palliative care (Odunsi & Pejovic 2013:39). In the earlier stages treatment usually is a combination of surgery and radiation or chemotherapy and in later stages radiation and chemotherapy is the main treatment (Lockwood 2009:147).

2.2.6.1 Surgical treatment of cervical cancer

Surgical procedures to treat cervical cancer include cone biopsy and cold knife conisation in places where invasive disease is suspected done as part of initial evaluation and staging (Roque, Wysham & Soper 2014:428). Simple hysterectomy used to treat patients with microinvasive disease who no longer desire fertility and radical hysterectomy for patients with cervical cancer above FIGO stage 1A (Roque et al 2014:428).

2.2.6.2 Radiation therapy for cervical cancer

Patients with cervical cancer stage 1B-11A can be treated with radical hysterectomy or radiotherapy and both treatments have similar results (Rajaram et al 2012:145). Radiation therapy can be given as main treatment and in combination with surgery either before or after surgery or with chemotherapy.

2.2.6.3 Chemotherapy

Chemotherapy can either be given by itself or can be used to reduce the size of the tumour before surgery (Rajaram et al 2012:219). Chemotherapy can also be used before radiotherapy to make cells more sensitive to radiation known as chemo sensitisation.

Excisional therapy of cervical cancer is highly effective when the disease is still localised therefore the need to detect precancerous lesions early as lesions evolve slowly (Borruto & Ridder 2012:275).

2.2.6.4 Palliative care

Palliative surgical and surgical interventions are used when cervical cancer is in incurable advanced disease or in management of patients who develop problems due to treatment (Mishra 2011:S45). Palliative care aims at improving the quality of life of the patient/client (WHO 2014a:7).

2.3 PERCEPTIONS, KNOWLEDGE AND ATTITUDES TOWARDS CERVICAL CANCER AND SCREENING

Women who are at risk of cervical cancer need complete and accurate information on Pap smear so that they can be motivated to use the services. There is need to address women's needs such as knowledge, cultural, emotional, perceptions and barriers to encourage women to use Pap smear services (Ackerson & Pretson 2009:1130). In addition reaching out to communities is vital for encouraging eligible women to use cervical cancer prevention services. Some of the strategies to involve communities include learning about women's perceptions of cervical cancer, barriers to seeking

screening, and responding to community needs through communication materials and outreach services. Reaching out to the community in Omaheke could be through utilisation of existing health facility to community linkages such as the primary health care outreach, health extension workers and Community Based Health Persons (CBHPs).

Several studies have been conducted on women's perceptions, knowledge and attitudes towards cervical cancer and cervical cancer screening and the results of the studies show that these factors influence uptake of cervical cancer screening which has overall impact on morbidity and mortality.

2.3.1 Perceptions of cervical cancer and screening

Studies show that women's perceptions of cervical cancer and screening influence screening uptake (Ndikom & Ofi 2012:7; Ncube, Bey, Bessler, Knight & Jolly 2015:104). In addition perceived benefits and barriers are linked to screening uptake. Negative perceptions like embarrassment, stigma, fear and pain may decrease uptake of cervical cancer screening (Marlow, Waller & Wardle 2015:251; Julinawati, Cawley, Domegan, Brenner & Rowan 2013:680). Results of a qualitative study conducted in Malawi on barriers to cervical cancer screening show that low perception of threat of the disease and perceived benefits of cervical cancer screening as barriers to screening (Fort, Makin, Siegler, Ault & Rochat 2011:129). The study further states that cultural beliefs influenced perceptions of women on cervical cancer screening.

Several studies show that fear of being diagnosed has been diagnosed with cervical has been identified as a factor that influences utilisation of screening services, some women may think a positive cervical cancer screening test is a death warrant (Fort et al 2011:128; Ndikom & Ofi 2012:7). According to Molefe and Duma (2009:30), in a study conducted in Botswana on experiences of Botswana women diagnosed with both HIV/AIDS and cervical cancer is more distressing than with other cancers. In addition half of women in a study to determine women's knowledge, attitudes and practice towards cervical cancer state that it is embarrassing to undergo a Pap smear and thought it was not necessary to have a Pap smear unless one has symptoms (Rezaie-Chamani, Mohammad-Alizadeh-Charandabi & Kamalifard 2012:177).

Fort et al (2011:126-128) conducted a qualitative study conducted in Malawi on barriers to cervical cancer screening. The study revealed that women's perceived threat of cervical cancer can be influenced by culture. In addition the results of the study show that the women's view of cervical cancer as a fatal disease is a barrier to screening and that women view cervical cancer screening as a test that can only detect a deadly disease and therefore fail to see the benefit of the screening. The study also identified waiting times at the clinic as barrier to cervical cancer screening with women being frustrated with the waiting times for some women after travelling long distances and that certain cultural beliefs have been found to influence women's decision to be screened.

However, a cross sectional study conducted in Mahalapye, Botswana shows a low screening uptake of 39% but most women did not have any perceived barriers to screening such as embarrassment, pain, lack of convenient clinic time and lack of information (Ibekwe et al 2011:1025-1026).

2.3.2 Knowledge of cervical cancer and cervical cancer screening

Women and health worker's knowledge of cervical cancer as a disease and cervical cancer screening have been found to influence the decision to be screened. In a study conducted in a low resource setting in South Africa to survey women's knowledge, lifestyle, risks and screening practices Maree et al (2012:112) identified that the greatest risk for cervical cancer was the women's lack of knowledge of this cancer as a disease, self-protection against the cancer and ability to recognise the signs. Results of a quantitative survey conducted by Maree et al (2009:86) in South Africa on women's knowledge of cervical cancer and acceptance of visual inspection with acetic acid and practical lessons learnt show a low level of knowledge of cervical cancer and cervical screening. Furthermore, Maree et al (2012:104) state that no women can prevent any disease and use available screening opportunities if she does not know about the disease.

Several studies found that knowledge on cervical cancer and cervical cancer screening is low among women and health workers (Kress, Sharling, Owen-Smith, Dasalegn, Blumberg & Goedken 2015:765). A study conducted in Namibia and Zambia on improving access to cervical cancer services for women in Southern Africa shows that HIV negative women in Namibia had low knowledge levels on cervical cancer and the

women associated cervical cancer with HIV and thus only women who are HIV positive were at risk of cervical cancer (Southern African Litigation Centre 2012:28).

In study of conducted by Ali-Risasi, Mulumba, Verdonck, VandenBroeck and Praet (2014:6) on knowledge, attitude and practice on cancer of the uterine cervix among women in the Democratic Republic of Congo, it was found that awareness of cervical cancer especially the prevention and treatment is very low among the women. In addition socio-economic factors such as place of residence, level of education, occupation, marital status and religion affect practice regarding cervical cancer screening. Hami (2013:235) conducted a study in Malawi and found that women had inadequate information of risk factors associated with cervical cancer and prospects of screening and treatment.

In a study conducted in Tanzania on demographic, knowledge, attitudinal, and accessibility factors associated with uptake of cervical cancer screening among women Lyimo and Beran (2012:5) state that knowledge and other factors will determine whether women utilise screening services.

Rezaie-Chamani et al (2012:179-180) conducted a study in Iran to determine women's knowledge, attitudes and practice towards Pap smear and barriers for screening in a public hospital. Data was collected from 350 married women on knowledge, attitudes and practice towards Pap smear. Results of the study show less than 50% of the participants were aware of Pap smear and only 27% had at least one Pap smear in their lives.

In addition studies suggest the low uptake of a Pap smear test can be attributed to lack of awareness. Hyacinth, Adekeye, Ibeh and Osoba (2012:1-3) in a study to determine the level of awareness of cervical cancer and Pap smear tests and factors associated with the utilisation of Pap test among female civil servants in Jos, Nigeria found that 50.9% were aware of cervical cancer and 38.6% were aware of a Pap smear test. Results of the study show a 10.2 % utilisation of Pap smear. Hyacinth et al (2012:1) concluded that lack of awareness and the belief that cancer is not preventable are barriers to cervical cancer screening.

Jia, Li, Yang, Zhou, Xiang, Hu, Zhang, Chen, Ma and Feng (2013:1) in a cross sectional survey to investigate issues that affect women's willingness to undergo cervical cancer screening in Wufeng area in China found that knowledge levels on cervical cancer affected willingness to participate in screening. In addition anxiety, fear of being diagnosed with the disease, lack of symptoms, discomfort and lack of knowledge of benefits of screening were identified as the major reasons for refusing cervical cancer screening (Jia et al 2013:5).

Women should therefore be informed about cervical cancer and the difference between HIV and HPV and the education given to women should be according to literacy levels of the women (Maree et al 2009:88; Maree et al 2012:113).

2.3.3 Attitudes on cervical cancer screening

Women's attitudes towards cervical cancer and screening have been shown to influence their decision to be screened for the disease. Results from a study conducted to investigate the attitudes of Japanese University students' towards cervical cancer among students who had never been screened for cervical cancer through group discussions reveal a low sense of reality about cervical cancer and a lack of knowledge of the disease and Pap smear tests (Oshima & Maezawa 2013:4314). In addition a study conducted in Thailand revealed that sex workers with a negative attitude to Pap smear tests were likely to never have had a Pap smear taken than those with a positive attitude (Lyimo & Beran 2012:2).

Fort et al (2011:128) in a study conducted in Malawi on barriers to cervical cancer screening found that attitudes towards health facilities, were related to the quality of health facility; with women perceiving free health services as being poor services as well as difficulty in moving from one department to another within the health facility.

A study conducted in Lao to determine the knowledge, awareness and attitudes about cervical cancer among Lao women attending or not attending HIV treatment centre show that absence of symptoms was given as a reason of not undergoing a Pap smear test (Sichanh, Quet, Chanthavilay, Diendere, Latthaphasavang, Longuet & Buisson 2014:161).

2.4 CONCLUSION

This chapter discussed literature pertaining to cervical cancer and cervical cancer screening. Chapter 3 presents the research methodology utilised for the study.

CHAPTER 3

RESEARCH DESIGN AND METHOD

3.1 INTRODUCTION

Chapter 3 outlines the research methods that were used to explore the perceptions, knowledge and attitudes of women undergoing cervical cancer screening in Omaheke, Namibia. The objectives of this study were to

- explore perceptions of women in Omaheke regarding cervical cancer screening
- describe knowledge and attitudes of women undergoing cervical cancer screening in Omaheke, Namibia
- propose an education programme aimed at improvement of cervical cancer screening

3.2 RESEARCH DESIGN

Research design refers to the structured plan followed by researchers to obtain answers to the research question (Joubert & Ehrlich 2007:77). A qualitative exploratory design was utilised in the study. Qualitative exploratory design allows the researcher to explore complex researchable problems and to identify specific lack of knowledge through the viewpoints of people affected (Grove, Burns & Gray 2012:66; Polit & Beck 2012:613). In this study the researcher sought to explore perceptions, knowledge and attitudes of women undergoing cervical cancer screening in Omaheke, Namibia. A generic qualitative research was chosen for the study because it tends to be holistic, striving for an understanding of the whole (Polit & Beck 2012:487). Qualitative design is chosen for this study to help give a clear description of perceptions, knowledge and attitudes of women undergoing cervical cancer screening in Omaheke, Namibia.

The researcher used inductive logic and collected subjective evidence from the participants within the participants' context. Qualitative research involves collection of data that cannot be handled easily with statistical procedures and it allows the researcher to understand how humans perceive their situation as well as finding out

why certain people hold certain views and why they behave the way they do (Joubert & Ehrlich 2007:318).

An exploratory design aims to develop, refine, extend and improve as well as probe thoroughly the nature and dimensions of an issue or phenomena by exploring views of participants (Punch 2014:311). Exploratory design is used where little is understood about the phenomenon or issue and it was considered the appropriate design as there is insufficient knowledge on perceptions, knowledge and attitudes of women undergoing cervical cancer screening in Omaheke, Namibia. Exploratory design was chosen to gain in-depth knowledge pertaining to perceptions, knowledge and attitudes of women undergoing cervical cancer screening in Omaheke, Namibia.

3.3 RESEARCH METHODS

Research method refers to specific techniques to select participants of the study, data collection, analysis, and interpretation that researchers propose for the study (Creswell 2009:15).

3.3.1 The setting and population

The setting of the study refers the place where participants of the study are recruited (LoBiondo-Wood & Haber 2013:101). The study was conducted at Epako Clinic in Omaheke region Namibia. Epako Clinic was chosen because it serves both urban and rural population and its catchment population which is almost half of the population of Omaheke. In addition Pap Smears are conducted daily at the facility and other facilities refer clients for Pap smears to Epako Clinic.

Population refers to the entire set of objects or people who are the focus of a research study and about which the researcher wants to determine some information (Babbie 2007:190). According to the 2011 population census, with a projected annual population growth rate of 0.5%, Epako clinic has an estimated total population of 20 790 and the population of women of child bearing age (15 to 49 years) is estimated at 15 907 for 2015 (Namibia 2014:1).

3.3.1.1 Target population

Burns and Grove (2013:342) define target population as the entire set of individuals of elements who meet the sampling criteria. Accessible population is the portion of the target population to which the researcher has reasonable access (Burns & Grove 2013:342). The accessible population for this study was all women undergoing cervical cancer screening at Epako Clinic in Omaheke Region.

3.3.1.2 Sample and sampling method

Sampling refers to the process of selecting cases to represent the entire population in a study (Polit & Beck 2012:275). The sample comprised women undergoing cervical cancer screening at the clinic. This study utilised a non-probability sampling approach. Purposive sampling was used to select participants for the study. Purposive sampling involves the selection of information rich subjects that enhance credibility of the study (Joubert & Ehrlich 2007:101). Purposive sampling is mainly used in qualitative studies where the main aim is not to generalise results. Purposive sampling was used in order to select participants who can relate to cervical cancer screening. Tongco (2007:147) states that the inherent bias of purposive sampling contributes to its efficiency but reliability and competence of the informant should be ensured for the data to be of quality. Purposive sampling was chosen because it is best for gaining in-depth understanding of complex concepts and was used to select participants that would most benefit the study. The sample size for this study was not predetermined. The researcher conducted interviews until no new information was collected thus data saturation is attained. Data saturation was achieved after eight (8) participants were interviewed.

Verification with nursing staff conducting Pap smear was done to select women who are being recruited for Pap smear, information rich participants who satisfied the inclusion criteria which are/were:

- participants should be willing to participate
- 18 years and older
- able to consent to the study
- able to speak English

3.3.2 Data collection

Data collection refers to systematic collection, analysis, and interpretation of health data necessary for designing, implementing, and evaluating public health prevention programmes (WHO 2015:1). Data were collected using a self-developed semi-structured interview guide (see Annexure F). The interview guide was developed by the researcher informed by literature in line with the purpose and objectives of the study. The interview guide was validated by the supervisors who are conversant with research and content of the study. An interview-guide is a strategy of questioning during interviews with topics to discuss or a questioning route with a sequence of questions in complete, conversational sentences Edwards and Holland (2013:1). An interview guide contains a set of open-ended questions that allows the participant to respond freely and the interviewer can probe to obtain more information (Holzemer 2010:147). The interview guide consisted of 2 sections. Section A consisted of participants' demographic details and section B consisted of questions pertaining to perceptions, knowledge and attitude regarding cervical cancer screening.

The interview guide was pre-tested on 2 participants who were not considered to be part of the participants of the study. The question 'What are the risk factors for developing cervical cancer?' was added to the interview guide to explore knowledge on risk factors.

3.3.3 Data collection process

Data collection took place during the period May-July 2015. Following approval from the University of South Africa and the Permanent Secretary of MoHSS and (see Annexures A and D) participants who satisfy the inclusion criteria were requested to participate in the interviews. On the first day the researcher informed the nursing staff at Epako Clinic on the study and requested the nursing staff to help identify women who had come to the clinic for Pap smear and who satisfied the inclusion criteria.

Face to face interviews were conducted by the researcher. Permission to use an audio tape to record the conversation as the researcher would not be able to remember all the details that were discussed. A private room at Epako Clinic requested beforehand for the study was used for the interviews. The room was marked 'do not disturb'. After

obtaining consent from the participant the researcher introduced herself and then used the interview guide to collect data. The researcher encouraged the participant to discuss freely during the interview. The interviews lasted 30 to 40 minutes. The interviewer thanked the participant. Data collection was continued until there were no new information that emerged and thus data saturation was reached (Polit & Beck 2012:521).

3.3.4 Data analysis

Data analysis is an active and iterative process that involves organising, structuring and eliciting meaning from narrative materials (Polit & Beck 2012:557; Jooste 2010:297). Qualitative data analysis is an on-going process which continues throughout data collection.

Each audio recorded interview was transcribed verbatim for the purpose of analysis by the researcher. The researcher through reading the transcribed data carefully identified initial codes which were used to collect additional data until data saturation occurred. The researcher analysed data using a framework proposed by Tesch (in Creswell 2009:185-187). The framework is described in the following 7 steps:

1. Each transcript was read through to give the researcher an overall picture.
2. The researcher then read the first transcript once more to explore the underlying meaning and wrote the meaning on the margins of the transcript.
3. The same process was followed with the rest of the transcripts and topics were written in the margins. Similar topics were then grouped into columns with main topics and sub-topics.
4. Codes were then given to topics and sub-topics and were added along the appropriate segments in the text.
5. Final decision was made regarding which categories to be included
6. The most descriptive wording were selected for topics and converted into categories. Similar topics were sub-themed under the relevant category.
7. Corresponding data was grouped under each category to highlight themes and sub-themes.

The researcher then interpreted and reported the results and findings using text format and paragraphs. The supervisors of this study were consulted to assist with the coding and presentation of the data. Tables were used to present analysis of demographic data.

3.4 ETHICAL CONSIDERATIONS

Ethical considerations are ways of ensuring that rights and welfare of participants are protected (Joubert & Ehrlich 2007:52). The researcher sought permission to conduct the study at Epako Clinic in Omaheke Namibia from the Permanent Secretary of MoHSS and obtained ethical clearance from the Higher Degrees Committee of the Department of Health Studies (see Annexures D, B and A respectively). Principles considered in this study were autonomy or respect of persons, right to protection from discomfort and harm, right to fair treatment and right to confidentiality and privacy.

3.4.1.1 Autonomy or respect for persons

Autonomy or respect for persons is a fundamental ethical principle which entails the right to self-determination and the right of each person to have clear and knowledgeable informed consent (Macnee & MacCabe 2008:147). Participants were given information on the study and requested to voluntarily participate or refuse to participate or withdraw from the study at any time without any negative consequences. Participants who were willing to participate voluntarily were requested to sign informed consent after being taken through the research information sheet. Participants were given information on the study information leaflet (see Annexure E). Participants were requested to complete the informed consent (see Annexure C).

3.4.1.2 Right to protection from discomfort and harm

The principle of beneficence imposes a duty to the researcher to minimise harm, discomfort and exploitation and maximise benefits (Joubert & Ehrlich 2007:33-34). The researcher advised the participants that there may be potential risks involved in participating in the study. The researcher advised participants of possible emotional discomfort that may be experienced. Any participants displaying signs of discomfort were to be referred to a social worker at the clinic for counselling. The researcher

advised participants that there are no direct benefits from participating in the study but it is anticipated that the study will improve uptake of cervical cancer screening thereby reduce morbidity and mortality due to cancer of the cervix. The researcher advised participants should they wish to withdraw from the study they could do so anytime during the study without compromising their benefits from the clinic.

3.4.1.3 Right to fair treatment

Justice entails the participant's right to fair treatment (Joubert & Ehrlich 2007:33). Participants were recruited in a fair manner free from coercion. Participants were given contact details for the research supervisor for any further questions or comments.

The researcher explained to the participants that they may not receive direct personal benefit from the study but it anticipated that the study will improve uptake of cervical cancer screening thereby reduce morbidity and mortality due to the disease as stated in the research information sheet for potential participants (see Annexure E). In addition it was anticipated that participants will not incur any financial costs from participating in the study.

3.4.1.4 Right to confidentiality and privacy

Confidentiality refers to the researchers' management of information shared by the participant that must not be shared without the authorisation of the participant. Confidentiality was ensured throughout the research process. With regards to privacy, a private room was previously requested and marked with a "do not disturb" board at the door used for the interviews. Participants were assured that no names would be linked to the data collected. Consent forms were kept separate from the data collected. No responses were linked to specific individuals. All completed consent forms, audio tapes and all transcribed materials were kept in a locked cabinet at the researcher's house and will be shredded after 3 years of completing the study. However, the supervisors could access the data in order to verify information.

3.5 MEASURES TO ENSURE TRUSTWORTHINESS

Trustworthiness is defined as the qualitative researcher's degree of confidence in the research findings which persuades others that the findings of the research are worth paying attention to (Tappen 2010:157). In this study the findings were assessed using the following criteria credibility, dependability, transferability and conformability.

3.5.1 Credibility

Credibility refers to the criterion that can be used to maximise the accuracy of identifying and describing whatever is being studied and therefore assess quality of data in qualitative studies (Macnee & MacCabe 2008:172). Credibility of this study was enhanced by:

Prolonged engagement refers to activities that invest sufficient time for data collection so that in-depth understanding of the phenomenon of interest and the researcher can also build trust and establish good rapport through prolonged engagement with participants where data collection took place. Prolonged engagement was attained by the researcher who established rapport from the moment the researcher was recruiting participants of the study and seeking permission from the women to participate in the study. Data collection lasted 30 to 40 minutes which allowed the researcher time to establish rapport with the participants to therefore encourage the participants to respond freely.

Member checking was done by constantly checking data with the participants immediately after the interview by summarising the responses ascertain if it's a true reflection of their responses to determine accuracy of findings. The final report of the study was taken back to the participants.

With regards to thick description the researcher provided detailed account of field experiences and paid attention to contextual detail in observing and interpreting social meaning of the participants' behaviours in the field. This may transport readers to the setting and give the discussion an element of shared experiences.

3.5.2 Dependability

Dependability is criterion which shows that the findings are consistent and could be repeated. In this study dependability was enhanced by:

Pre-testing the interview guide with 2 participants and necessary adjustments were made to the instrument. The question 'What are the risks factors developing cervical cancer?' was added to the interview guide to explore knowledge on risk factors.

The research methodology was clearly described and comprehensively transcribed interviews were presented in this study.

3.5.3 Transferability

Transferability of qualitative study results refers to applicability of the study results in one context to another context (Streubert-Speziale et al 2011:49). To ensure transferability of the study results the researcher provided a comprehensive description of the characteristics of the participants and study setting which should enable individuals to evaluate applicability of the results in other settings.

3.5.4 Conformability

Conformability refers to recording activities over time that another individual can follow in order to illustrate as clearly as possible the evidence that led to the conclusions. An audit was done by an independent expert researcher. Transcriptions were verbatim. In addition conformability also refers to recognition of shortcomings of the study design.

3.6 SUMMARY

In this chapter the research design and methods were discussed. The setting, population, sampling, data collection and analysis, ethical consideration and measures to ensure trustworthiness were discussed. Chapter 4 will present the findings of this study.

CHAPTER 4

FINDINGS AND DISCUSSION

4.1 INTRODUCTION

In this chapter the focus is on analysis, presentation and discussion of the findings of the study. The purpose of the study was to attain an understanding of the perceptions, knowledge and attitudes of women undergoing cervical cancer screening in Omaheke, Namibia in order to propose an education programme aimed at improvement of cervical cancer screening uptake.

To attain the objectives of this study stated in Chapter 1 (1.5), the researcher included participants who satisfied the inclusion criteria set by the researcher discussed in Chapter 3 (3.3.2). Data were collected using an interview guide and each interview was audio recorded with the participants' permission.

4.2 DATA MANAGEMENT AND ANALYSIS

Audio recorded data were stored in the researcher's personal computer. After each data collection day, each audio recorded interview was transcribed verbatim. To analyse the data the researcher followed the 7 steps proposed by Tesch (in Creswell 2009) as outlined in Chapter 3 (3.3.4) and summarised as follows:-

Each transcript was read through to give the researcher an overall picture and ideas were jotted down. The researcher read each transcript once more and wrote the meaning and topics in the margins. Similar topics were grouped together, codes were given to the topics and descriptive wording were selected for the topics and converted into sub-themes. Corresponding data were presented as sub-themes and grouped to form themes.

4.3 REASERCH FINDINGS

The findings of the study provided demographic characteristics of the participants and qualitative information on perceptions, knowledge and attitudes of women on cervical cancer and screening in Omaheke, Namibia.

4.3.1 Description of the demographic characteristics of the participants

Demographic data were collected in order to obtain background information on the participants in relation to the context of the findings. There were eight women who participated in the study. The eight participants were aged between 18 and 50 years. Of the eight participants six had formal education and four of the participants were married. The participants had between one and four children and only two of them had previously had a Pap smear done.

These variables were included in the study because socio-economic and demographic factors such as place of residence, level of education, occupation, marital status and religion affect knowledge, attitude and practice regarding cervical cancer screening (Thulaseedharan, Malila, Hakama, Esmay, Chariyan, Swaminathan, Muwonge & Sankaranarayanan 2012:2993). Ncube et al (2015:17) indicate that women who are married are more likely to be screened than their counterparts. This might be explained by high number of visits to health facilities which increases the chances of the women to be aware of cervical cancer and screening. However, in this study the observation was that very few women in Omaheke attended screening despite the measures to increase the uptake. High parity has also been seen to be a cofactor to developing high grade cervical cancer disease and therefore it is important to know the parity of the participants (Karthigeyan 2012:8). In addition women who are educated are more likely to be screened for cervical cancer (Singh & Badaya 2012:2165). However, these were not really evident with participants in this study.

4.3.2 Themes and sub-themes

During data analysis three themes and five sub-themes were identified. The themes identified included cervical cancer as a disease, perception of cervical cancer and

service delivery at the health facilities. The themes, sub-themes together with meaning units are presented in table 4.1.

Table 4.1 Themes, sub-themes and meaning units

Theme	Sub-theme	Meaning unit
Theme 1: Cervical cancer as a disease	Sub-theme 1.1: Limited or lack of knowledge of Pap smear	Pap smear used to clean the womb, remove infections and increase the chance of getting pregnant
		Pap smear must be something they put inside to clean private parts
		Never heard about Pap smear
		Not sure what Pap smear is
	Sub-theme 1.2: Lack of knowledge of risk factors for developing cervical cancer	I just know that if you are someone who is having sex then you are at risk
		No need to screen for cervical cancer if one feels fine
	Sub-theme 1.3: Misconceptions regarding Pap smear	Pap smear removes infections in the womb
		Pap smear is the same as biopsy
	Sub-theme 1.4: Lack of understanding of procedure	Pap smear same as dilation and curettage A piece of flesh will be cut during Pap smear
	Theme 2: Perception of cervical cancer	Sub-theme 2.1: Cervical cancer a serious condition
Women die embarrassing death due to complications of cervical cancer		
The problem is that you get cancer you will die and is you will die smelling because of things coming from the private parts (genitals)		
Sub-theme 2.2: Low perception of risk		If there are no symptoms then one is not at risk
Theme 3: Service delivery at the facility	Sub-theme 3.1: Poor service delivery	Long waiting times pertaining to service and follow up for Pap smear result

4.3.2.1 Theme 1: Cervical cancer as a disease

The findings from this study show that the participants had limited or lacked knowledge on Pap smear, cervical cancer and risk factors for developing the disease. In addition the participants had some misconceptions regarding the use of Pap smear or its purpose.

Sub-theme 1.1: Limited or lack of knowledge of Pap smear

The participants' limited or lack of knowledge is evident from the following narratives:

"I am not sure what Pap smear is but it must be something they put inside or to clean the private parts." (Participant 1).

"Ah! Is it not to clean the womb? I have something in my tummy and my mother said if I come for Pap smear then the nurse will clean my tummy and take the dirtiness out of my tummy." (Participant 4).

"You see my tummy is getting big so I need the nurse to put in that thing (meaning speculum) they put so that the things making my tummy big can come out." (Participant 4).

The findings of the study are consistent with a study conducted by Ali-Rasasi et al (2014:11) in Kinshasa, Democratic Republic of Congo (DRC) who found that there was lack of or limited knowledge on prevention of cervical cancer among women in areas with high incidence of cervical cancer. This study confirms what was found by Ali et al (2014:11) as it is clear in the women's narratives that their knowledge was indeed limited as to use or purpose of Pap smear.

Despite the findings above some participants had some form of knowledge of Pap smear as supported by the following narratives:

"Pap smear is umh...the nurse or doctor turns the womb to check if you have cancer of the womb ya. They check for infection also ya and for cancer since most people are getting cancer nowadays." (Participant 2).

“Pap smear is checking for cervical cancer of the womb.” (Participant 7).

The findings of the study show that some of the participants had heard about Pap smear, however, were not sure what Pap smear was for; including those participants who had Pap smear before. These findings are consistent with a study conducted in Malawi to identify factors, with emphasis on knowledge, that were associated with the intention to be screened for cervical cancer screening among Malawian women, aged 42 years and older (Hami 2013:180).

Further Oon, Shuib, Ali, Hussain, Shaaban and Yusoof (2011:3) in a study conducted in Malaysia to investigate knowledge, attitudes and beliefs on cervical cancer screening found that some women had never heard about Pap smear and even those who knew what Pap smear was had limited knowledge on its aim and importance. Lack of or limited knowledge on prevention of cervical cancer has been shown among women even in areas with high incidence of cervical cancer (Ali-Rasasi et al 2014:11).

Sub-theme 1.2: Knowledge of risk factors for developing cervical cancer

The findings of the study show that the participants did not know nor perceive the seriousness of the risks for developing cervical cancer. In addition some participants felt that there is no need to screen if one is not sick. Some of the participants' narratives are as follows:

“Honestly I don't know. I think it can just come on its own” (Participant 3).

“There was no need because I felt just fine. Me I just came because I have a problem.” (Participant 4).

“It (cancer) just comes on its own.” (Participant 8).

Another participant, however, managed to mention one risk factor for cervical cancer. The participant's narrative is as follows:

“Honestly I just know that if you are someone who is having sex then you are at risk. It's all I know really yaya.” (Participant 2).

The findings suggest that women lacked or had limited knowledge of risk factors for developing cervical cancer. Of concern is that only one out of the eight could identify some risk for developing cervical cancer. Tripathi, Kadam, Dhodale and Gore (2014:122) indicate that people who are not aware of risks for developing an illness are less likely to seek medical attention or screening for the disease. The findings support the study of Ndikom and Ofi (2012:7) conducted in Nigeria among women on awareness, perceptions and factors affecting utilisation of cervical cancer screening services; where it was found that women were not really aware of cervical cancer nor understood their susceptibility to the disease thus they were not motivated to utilise cervical screening services. Furthermore, Sudenga, Rositch, Otieno and Smith (2013:896-898) indicated that if women are aware of risk factors for developing cervical cancer they are more likely to seek screening.

In another study Wong, Wong, Low, Khoo and Shuib (2009:49) found that women believe the purpose of the Pap smear test is to detect existing cervical cancer, leading to the belief that Pap smear screening is not required when one does not have symptoms. Knowledge of risk factors and purpose of Pap smear is vital so that women can seek screening even without signs and symptoms of cervical cancer.

Sub-theme 1.3: Misconceptions regarding Pap smear

The findings of the study revealed participants lacked understanding of the purpose of a Pap smear. Misconceptions regarding cervical cancer were evident from the participants' narratives as follows:

“Ah! Is it not to clean the womb? I have something in my tummy a and my mother said if I come for Pap smear then the nurse will clean my tummy and take the dirtiness out of my tummy.” (Participant 5).

“My boss said Pap smear is good but if you are old like me you can end up getting more children.” (Participant 1).

Of interest is that the findings of the study concurs with the findings of a study conducted on needs assessment on screening for reproductive system cancer; where it

was found that there are misconceptions in the communities regarding causative agents of cervical cancer. In addition the assessment found that people are unwilling or unable to go for screening for early detection of cancer due to false beliefs, ignorance about the availability of screening and treatment services (Namibia 2011a:77). Furthermore the current study supports findings of the study of Mupepi et al (2011:949) conducted in Zimbabwe on knowledge, beliefs, attitudes and demographics that influence cervical screening where women reported that cervical screening cures cervical and womb infections, cleans the womb and treats infertility.

The results of a qualitative study conducted to investigate knowledge, attitudes and beliefs on cervical cancer screening among Malaysian women revealed that women did not have a clear understanding of Pap smear and its use as a screening method rather than a diagnostic procedure (Wong et al 2009:53). The current study concurs with the findings of Wong et al (2009:49) which concluded that it is important to emphasise accurate information about cervical cancer and the purpose of Pap smear screening when designing interventions aimed at improving cervical cancer screening. Women who lack a clear understanding of Pap smear could be discouraged from screening (Ebu, Mupepi, Siakwa & Sampelle 2015:37). In addition, one would suggest that women might not perceive themselves to be susceptible to developing cervical cancer due to misconceptions (Orlowski 2015:105).

Extensive public education is needed in order to address misconceptions regarding screening for cervical cancer as well as emphasis on giving women clear understanding of the purpose of Pap smear and that screening primarily targets to detecting precursor lesions that occur early in the course of the disease for early treatment. Misconceptions related to causes of cervical cancer could have a negative impact on the women's intention to screen for cervical cancer. Demystifying women on knowledge and perceptions on issues related with cervical cancer and screening may in turn improve uptake of screening.

Some misconceptions and myths could, however, encourage women to be screened assuming for example that they could be treated for infections and that Pap smear could aid in conception. These misconceptions have been described by Mupepi et al (2011:949) as positive as they could encourage women to undergo screening for cervical cancer.

Sub-theme 1.4: Lack of understanding of the procedure

The participants had limited knowledge of the Pap smear procedure. Some participants who had never had Pap smear before said:

“What I knew is that it is a test they put a spoon inside and cut a small piece of flesh and test it but today the nurse who was teaching us said there is no cutting, they just take white things. And she said it is not at all painful.” (Participant 3).

Lack of understanding of the procedure can be a barrier to cervical cancer screening as women may have fear that the procedure may be painful (Al-Nagger, Low & Isa 2010:870). One participant when asked why she had delayed having Pap smear said:

“I was afraid because I thought there is cutting that goes on when they are doing Pap smear.” (Participant 3).

Ncube et al (2015:108) indicated that limited or lack of understanding of the procedure may deter women from screening. Women who associate a Pap smear with pain may be less willing to be screened for cervical cancer. The findings of a study conducted in India to determine knowledge, attitude and practice of Pap smear as a screening procedure among nurses in a tertiary hospital show that fear of vaginal examination is a reason for non-participation in screening among others (Thippeveeranna, Mohana, Singh & Singh 2013:851).

4.3.2.2 Theme 2: Perception of cervical cancer

This theme had two sub-themes namely cervical cancer a serious condition and low perception of risk. The participants perceived cancer as a serious disease, however, their perception of risk was low. The perception of cervical cancer as a serious disease increases barriers to screening with some women feeling there is no cure for cervical cancer.

Sub-theme 2.1: Cervical cancer a serious condition

The participants perceived seriousness of cervical cancer as disease in general. Cancer was perceived as a fatal disease with no cure. The participants mentioned that:

“I don’t know but I think it is a serious disease you said moss cancer. All cancer diseases must be serious. They kill also and I don’t think there is treatment for the disease. Usually people say if you get cancer you will go to Windhoek and it will be burnt but the problem is they say if it is burnt you will just die, its why I said there is no treatment.” (Participant 1).

“Cancer is deadly because there is no treatment for it.” (Participant 8).

Some of the participants perceived cervical cancer as a serious disease comparable to HIV as they mentioned that:

“Cancer is a very serious disease like HIV but they say cancer is worse because there is no medicine.” (Participant 8).

“Cancer is very serious because it is not having treatment like HIV. If you get cancer you will die.” (Participant 3).

Some of the participants perceived cervical cancer as a serious disease. The perception of cervical cancer as a serious disease increases perceived barriers to screening with some women feeling there is no cure for cervical cancer and therefore no benefit for being diagnosed with a deadly disease (Fort et al 2011:128). According to Ndikom and Ofi (2012:7) the perception that cervical cancer is a death warrant if one tests positive may deter women from undergoing screening due to lack of awareness of benefits of being screened.

One of the participants mentioned that death due to cervical cancer was embarrassing due to the complications of the disease. The participant reported that:

“If you get cancer you will die and the problem is you die smelling because of things coming from the privates.” (Participant 3).

However, one participant of the study who showed an understanding of Pap smear mentioned that:

“Cervical cancer is a serious disease and it can kill. If you do Pap smear when the cancer is just starting then the doctors can cut off the cancer before it spreads.” (Participant 7).

The findings confirm that women who perceive the seriousness of the disease as well as benefit of being screened are likely to approach health facility in order to be screened to get treatment earlier. This supports the finding of Oon et al (2011:3) who suggested that women who perceive themselves to be at risk of developing cervical cancer are likely to know they are eligible for Pap smear and are likely to seek cancer screening. Furthermore, Urasa and Darj (2011:55), indicate that knowledge of a disease influences one’s perception of susceptibility, public health importance a disease and benefits of screening.

Sub-theme 2.2: Low perception of risk

The findings suggest that the participants had a low perception of risk and that they felt that absence of symptoms meant that there was no need to be screened for cervical cancer. A participant indicated that:

“There was no need because I felt just fine. Me I just came because I have a problem and the people at home told me that if I am done Pap smear it will help me.” (Participant 4).

The findings of the study are consistent with a study conducted in Lao People’s Democratic Republic (PDR) on women attending or not attending HIV treatment centre on awareness, perceptions and attitudes. The study found that absence of symptoms was given as a reason for not undergoing Pap smear (Sichanh et al 2014:161).

In addition the participants in this study were found to have a low perception of risk with regards to cervical cancer. Low perception of risk for developing cervical cancer might contribute to lower cervical screening coverage for some communities (Waller, Jackowska, Marlow & Wardle 2011:30).

4.3.2.3 Theme 3: Service delivery at the health facility

This theme revealed that participants were concerned with service delivery at the facility. A sub-theme of poor service delivery at the facility emerged and is discussed as follows:

Sub-theme 3.1: Poor service delivery at the facility

The participants reported long queues resulting in long waiting times at the health facility as a barrier to cervical cancer screening. Some of the participants attributed the long waiting periods at the facility to the nurses who are slow. Some participants who had undergone a Pap smear before were concerned about the long waiting period for the results of the Pap smear to be available.

“It’s not my first time to come but every time the sister is late the car to the farm is here already...Nurses are also very slow.” (Participant 1).

“Waiting period for the result is very long.” (Participant 7).

Another participant said:

“The problem is when you come for Pap smear you wait long so sometimes you go back home without being helped” (Participant 4).

This finding from the study is consistent with the study by Fort et al (2011) conducted in Malawi where it was found that attitudes towards health facilities, around quality of health facility with women perceiving free health services as being poor services as well as difficulty in health facility navigation. Women’s attitudes towards health facility and service provision have been shown in other studies to influence screening uptake.

Another participant raised concerns on the waiting period for results and the patient flow at the clinic as indicated in the following narrative:

“I like to do my secret things at private because the results are not taking long and I just don’t trust nurses, doctors are better. Nurses will sometimes send you to the doctor after Pap smear so it is better to go straight to the doctor.” (Participant 7)

“Nurses will sometimes send you to the doctor after Pap smear so it is better to go straight to the doctor- (private).” (Participant 7).

Waiting periods at the health facility and attitudes of health workers towards patients were of great concern as it influences cervical cancer screening uptake (Singh & Badaya 2012:2164). Long waiting times at the facility may result in women not being screened even if they intended to be screened. In addition women’s attitudes towards health facility and service provision have been shown in other studies to influence screening uptake.

4.3.3 Participants’ suggestions to improve cervical cancer screening uptake

Participants of this study proposed mainly operational changes that could encourage women to be screened for cervical cancer. Some of the participants when asked if there are any changes that could be done at the clinic that could encourage women to come for screening mentioned that:

“I think most people don’t know about Pap smear. Umh I wish the message of Pap smear could be spread in churches, at sporting events ya. Where women are gathering, I think also when women come to the clinics and they are waiting for other services as well.” (Participant 2).

Another participant who had a Pap smear previously felt the internal referrals at the facility were a cause of concern said that:

“For me really it’s just the way we are sent from one room to the other. You come to the nurse then the nurse sends you to the doctor and if the doctor is not here you have to go to the hospital. It’s too much. At the private doctor you go in once after a week your results are out but here even the results you really have to wait for months until you forget. I feel it’s unfair.” (Participant 7).

Participants of this study proposed mainly operational changes that could encourage women to be screened for cervical cancer.

The findings show that the participants felt that there is a need to increase awareness on cervical cancer and screening. In addition the participants felt that there is a need to address operational issues which include of patient flow at the clinic, internal referrals and issues of patient flow in order to reduce waiting time at the clinic and offering services in a manner that increases accessibility of cervical cancer screening. The findings also show that the waiting period for the Pap smear results at the state institution is too long and could be discouraging women from screening or collecting their results of Pap smear.

Despite the availability of a national cervical cancer screening programme and guidelines for cervical cancer screening stipulated in Circular [55] of 2010, cervical cancer screening uptake remains low in Omaheke (Namibia 2010:5). The study identified several challenges that could be addressed in future.

4.4 THE EDUCATION PROGRAMME

The last objective was to propose an education programme aimed at improvement of cervical cancer screening which will be discussed in the section that follows. The education programme presented in the next section is based on the main findings of the study, the needs identified by participants as well as relevant literature.

4.4.1 Objectives of the education programme

The objective of the education is to increase awareness on cervical cancer as a disease, risk factors, necessity of screening, and availability of treatment options; as well as to highlight that cervical cancer screening is a free service. The study recommends an education programme be targeted at the community with the objectives of

- improving women's awareness of cervical cancer
- clearing misconceptions regarding cervical cancer and screening

- encouraging women to be screened for cervical cancer

4.4.2 Planning the education programme

It is recommended that the cervical cancer education programme be provided by amongst other health professional, health assistants and health extension workers. It is recommended that comprehensive health education sessions be conducted at the health facilities as well as in the community. In addition the study recommends use of mass media both radio and/or television programmes.

4.5 CONCLUSION

This chapter outlined the research findings of the study. The discussion was also presented. From the findings of the study one would suggest there is need to develop interventions, which will be outlined in the next chapter on recommendations, based on understanding the target population could increase access to services and thereby uptake of cervical cancer screening. Chapter 5 will present the recommendations and conclusion of the study.

CHAPTER 5

CONCLUSIONS, RECOMMENDATIONS AND CONCLUSIONS

5.1 INTRODUCTION

This chapter presents conclusions, recommendations and limitations of the study. The purpose of the study was to attain an understanding of the perceptions, knowledge and attitudes of women undergoing cervical cancer screening in Omaheke, Namibia in order to propose an education programme with an overall aim of improving cervical cancer screening uptake.

5.2 SUMMARY OF RESEARCH DESIGN AND METHODS

A qualitative exploratory study was conducted. Purposive sampling was used to select participants who met the inclusion criteria in Chapter 3 (3.3.1.2). Following approval from the Permanent Secretary of the MoHSS and the Higher Degrees Committee of the Department of Health Studies; data were collected from willing participants using a self-developed interview guide. The sample size was not pre-determined but data collection continued until no new information was being shared, meaning that data saturation was attained. The sample size was eight (8) participants. Data analysis was done concurrently with data collection. Tesch's seven (7) steps were used to analyse data; which revealed three themes namely; cervical cancer as a disease, perception of cervical cancer and service delivery at the health facility. In addition, the participants mentioned a number of changes at the facility that could encourage women to be screened for cervical cancer and thereby increase uptake.

5.3 SUMMARY OF THE RESEARCH FINDINGS

The first objective of the study was reached, namely to explore perceptions of women in Omaheke regarding cervical cancer screening. The study found that the participants of the study perceived cervical cancer as a serious disease and the participants had a low perception of risk. In addition cervical cancer was perceived as a serious illness.

The second objective was to describe knowledge and attitudes of women undergoing cervical cancer screening in Omaheke, Namibia. This objective was reached. The study found out that the participants had limited or lack of knowledge on Pap smear. The responses on knowledge of Pap smear varied from some participants who never heard about Pap smear to some who mentioned that Pap smear is to test for cancer of the womb. The participants had limited or lacked knowledge on risk factors for developing cervical cancer with most the participants mentioning that they did not know what risk factors for developing cervical cancer are or mention that there are no risk factors for developing cervical cancer. The findings also indicate that the women had misconceptions regarding Pap smear. In addition participants felt service delivery at the facility was inadequate due to long waiting hours at the facility as well as follow up for Pap smear results. The last objective was to recommend an education programme as described in Chapter 4.

5.4 RECOMMENDATIONS

Recommendations presented are related to the research findings and further research regarding the present research topic.

5.4.1 Recommendations for service delivery

The study found that the participants had poor attitudes towards service delivery. The researcher recommends that management should look into issues of accessibility of cervical cancer screening and operational issues such as patient/client flow at the facility. In addition strengthening of laboratory infrastructure is recommended to ensure the waiting periods of results are reduced. In addition, management to consider using other screening methods such as VIA or VILI which are less expensive to conduct and results are available immediately. VIA will alleviate pressure on laboratory services as well.

5.4.2 Recommendations on further research

Further research regarding this research topic is recommended as follows:

To:

- examine the association between socio-demographic characteristics and screening attitude, distinguishing among different healthcare settings (screening at state vs. private facilities), various demographic characteristics such as (urban vs. rural, educated vs. uneducated, previously screened vs. never screened).
- undertake a qualitative assessment of the experiences of women who have been screened would provide feedback to healthcare providers and policy makers, which could be used to improve the delivery and quality of healthcare services.
- undertake a cross-sectional survey can be used to assess knowledge in order to evaluate the impact of the education programme.

5.4.3 Recommendations on nurses' training

It has been made known in the statement of the problem (1.3) that the MoHSS in collaboration with the cancer association trained nurses on Pap smear. The study therefore further recommends that

- institutions develop a training programme for nurses who are usually involved in cervical cancer screening and health education. The training programme should focus on giving appropriate health education on cervical cancer and screening, well demystifying screening as well conducting Pap smears and follow up.

5.5 LIMITATIONS

A small sample size of women was used, thereby limiting the study's generalisability. However, data saturation was reached. The interviews were conducted in English which is not the first language of the participants. This could have made it difficult for some participants to express themselves clearly and could also possibly explain the short length of the interviews.

5.6 CONCLUSION

Cervical cancer is a global public health concern. Cervical cancer screening using Pap smear as a screening test is effective to detect precancerous lesions. However, in Omaheke screening coverage remains a challenge even though it is integrated with

other services like family planning, Highly Active Anti-Retroviral (HAART) programme, post-natal care to mention a few, more could be done to motivate women to be screened.

The study showed that women undergoing cervical cancer screening had limited or lacked accurate knowledge about cervical cancer and the Pap smear test. This could be worse among women who are not coming to the health facilities. The participants lacked knowledge about cervical cancer risk factors and the Pap smear. There is therefore urgent need to improve cervical cancer awareness among the women.

Interventions to improve knowledge and understanding of cervical cancer and the purpose of screening could increase screening uptake and benefit women. In addition there is a urgent need to look at operational issues at the facility to make screening more accessible to eligible women.

Based on the findings of the study the researcher recommended an education programme for the community on cervical cancer and screening. The study suggests that misunderstanding and misconceptions on cervical cancer and screening could be addressed by use of appropriate terminology during health education sessions and on Information, Education and Communication (IEC) materials. Extensive health education should be given to communities on cervical cancer and screening.

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ANNEXURES

**ANNEXURE A: LETTER OF APPROVAL FROM THE PERMANENT SECRETARY
MINISTRY OF HEALTH AND SOCIAL SERVICES**



9 - 0/0001

REPUBLIC OF NAMIBIA

Ministry of Health and Social Services

Private Bag 13198
Windhoek
Namibia

Ministerial Building
Harvey Street
Windhoek

Tel: 061 - 203 2510
Fax: 061 - 222558
E-mail: eshaama@mhss.na

OFFICE OF THE PERMANENT SECRETARY

Ref: 17/3/3
Enquiries: Ms. E. Shaama

Date: 10 June 2014

Ms. Sithembiso Zengwe
Private Bag 2099
Gobabis State Hospital
Gobabis

Dear Ms. Zengwe

Re: Perceptions, knowledge and attitudes of women undergoing cervical cancer screening in Omaheke, Namibia

1. Reference is made to your application to conduct the above-mentioned study.
2. The proposal has been evaluated and found to have merit.
3. **Kindly be informed that permission to conduct the study has been granted under the following conditions:**
 - 3.1 The data to be collected must only be used for completion of your Masters in Public Health (MPH) degree;
 - 3.2 No other data should be collected other than the data stated in the proposal;
 - 3.3 A quarterly report to be submitted to the Ministry's Research Unit;
 - 3.4 Preliminary findings to be submitted upon completion of the study;
 - 3.5 Final report to be submitted upon completion of the study;
 - 3.6 Separate permission should be sought from the Ministry for the publication of the findings.

Yours sincerely,


Andrew Ndishishi (Mr)
Permanent Secretary

"Health for All"

**ANNEXURE B: ETHICAL CLEARANCE CERTIFICATE HIGHER DEGREES
COMMITTEE OF THE DEPARTMENT OF HEALTH STUDIES UNISA**



**UNIVERSITY OF SOUTH AFRICA
Health Studies Higher Degrees Committee
College of Human Sciences
ETHICAL CLEARANCE CERTIFICATE**

HS HDC/319/2014

Date: 26 February 2014 Student No: 4878-217-3
Project Title: Perceptions, knowledge and attitudes of women undergoing cervical cancer screening in Omaheke, Namibia.
Researcher: Sithembiso Zengwe
Degree: Masters In Public Health Code: DLMPH95
Supervisor: Ms A Masala
Qualification: M Tech
Joint Supervisor: -

DECISION OF COMMITTEE

Approved Conditionally Approved

**Prof L Roets
CHAIRPERSON: HEALTH STUDIES HIGHER DEGREES COMMITTEE**

For

**Prof MM Moleki
ACADEMIC CHAIRPERSON: DEPARTMENT OF HEALTH STUDIES**

PLEASE QUOTE THE PROJECT NUMBER IN ALL ENQUIRES

ANNEXURE C: INFORMED CONSENT

I willingly give consent to participate in an interview to be conducted to explore perceptions, knowledge and attitudes of women undergoing cervical cancer screening in Omaheke, Namibia. Sithembiso Zengwe is a postgraduate pursuing Master in Public Health with the University of South Africa.

I understand I will be asked questions and my responses will be audio taped. I understand that data collection will last 40 minutes to an hour. I understand that information collected will not be linked to my name, however, pseudo names will be used if data needs to be presented. I understand that my name will not appear on any forms or be used for data presentation.

I willingly participate in this interview and I am free to withdraw anytime without any negative consequences on my healthcare.

Date of interview.....
Participant’s signature.....
Interviewer’s signature.....

Further information regarding this study contact
Sithembiso Zengwe
Gobabis State Hospital
P Bag 2099
Gobabis, Namibia

Telephone number +264 5662000
Cell phone number +264 81 353 7505
Email: szengwe@yahoo.com

**ANNEXURE D: REQUEST OF APPROVAL FROM THE PERMANENT SECRETARY
OF MoHSS TO CONDUCT THE STUDY AT EPAKO CLINIC**

Gobabis State Hospital

P. Bag 2099

Gobabis

20 May 2014

The Permanent Secretary
Ministry of Health and Social Services
Windhoek

Dear Sir

**RE: PERMISSION TO CONDUCT A STUDY ON CERVICAL CANCER SCREENING
AT EPAKO CLINIC, OMAHEKE**

I write to seek permission to use Epako Clinic in Omaheke as a study site. My name is Sithembiso Zengwe and I am a registered nurse at the facility. I am pursuing a Master of Public Health Degree with the University of South Africa. As a requirement for the programme I am expected to conduct research.

The purpose of the study is to explore perceptions, knowledge and attitudes of women undergoing cervical cancer screening in Omaheke, Namibia. Data will be collected from consenting participants 18 and above. The researcher will conduct interviews until no new data is forthcoming. I have attached my research proposal.

I am looking forward to a favourable response.

Yours faithfully

Sithembiso Zengwe

ANNEXURE E: RESEARCH INFORMATION SHEET FOR POTENTIAL PARTICIPANTS

You are being asked to participate in a study to explore perceptions, knowledge and attitudes of women undergoing cervical cancer screening in Omaheke. This study is conducted by Sithembiso Zengwe. Sithembiso Zengwe is a registered nurse at Epako Clinic pursuing a Master in Public Health with the University of South Africa. As a requirement of the programme she is supposed to conduct research. The information obtained from this study will be used to improve cervical cancer uptake in Omaheke.

Participants will be asked questions on my demographic information and on perceptions, knowledge and attitudes in relation of various aspects of cervical cancer screening. The responses will be recorded on tape. The interview is expected to last 40 minutes to an hour. Participating in the study is voluntary and the participant will be free to withdraw anytime with no effect on their healthcare. Information obtained from the study is confidential. No names or any other forms of identification will appear on the research report.

There may be potential risks involved in participating in the study due to the sensitive and stigmatized nature of the disease. The researcher will advise the participants of the possibility of emotional discomfort that may be experienced. However, participants displaying signs of emotional discomfort will be referred for counselling by the social worker in the facility. Participants may not receive a direct benefit from the study but it is anticipated that the study will improve uptake of cervical cancer screening thereby reduce morbidity and mortality due to the disease.

Thank you for considering the request to participate in the study.

Yours faithfully

Sithembiso Zengwe

For further information contact

Sithembiso Zengwe

Gobabis State Hospital

P Bag 2099

Gobabis, Namibia

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OR

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ANNEXURE F: INTERVIEW GUIDE

Section A: Demographic Data

How old are you?

Are you employed?

Unemployed Self-employed Employed

What is your highest level of qualification?

Primary Secondary Tertiary No education

Where do you stay?

Urban Rural

What is your marital status marital status?

Single Divorced/Widow Married

How many children do you have?

Section B: Questions on women's knowledge, perceptions and attitudes on cervical cancer

What is Pap smear?

What is Pap smear used for?

How serious is cervical cancer?

What is the risk for developing cervical cancer?

How many times have you been screened for Pap smear?

What changes would you like to see that could make women come to the clinic for Pap smear?