KNOWLEDGE, ATTITUDE AND PRACTICE OF NURSES REGARDING EARLY DETECTION, CARING AND SUPPORT OF MEN WITH PROSTATE CANCER AT HEALTH FACILITIES IN WINDHOEK, NAMIBIA: A MIXED METHOD STUDY

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BY

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ABSTRACT

The aim of the study was to determine, explore and assess the knowledge, attitude and practices of nurses regarding early detection, caring and support of men with prostate cancer at health facilities in Windhoek, Namibia. Prostate cancer is the second most frequent cancer diagnosis in men and the fifth leading cause of death worldwide. Nurses have been reported in the literature to offer minimum support for prostate cancer patients. The same trend seems to be evident in Windhoek and it's not clear what could be the reason for this discrepancy hence the researcher was interested in knowing the knowledge, practice and attitude of nurses towards prostate cancer care services.

The study adopted a mixed research, convergent parallel design to understand the research problem. For objective 1 and 2, a quantitative approach and descriptive design were used to determine knowledge and practice using self-administered structured questionnaires. A sample of 105 respondents was selected randomly and data was analysed using SPSS. For objective 3, a qualitative descriptive design was used to explore attitude from 10 purposively selected participants using semi-structured interviews.

The findings of the study revealed that respondents had a low level of knowledge 86 (81.9%), but they had good practices 54 (51.4%). Participants expressed positive attitudes towards early detection, negative attitudes towards caring and negative attitudes towards support. The findings further reported health facility (P-value=0.003) and health status (P-value= 0.039) to be a significant predictor of practice. Moreover, the study revealed that the level of knowledge was not significantly associated with practice P-value= 0.696.

The researcher recommended ongoing in-service training with well-stipulated outcomes on prostate cancer services to improve nurses' knowledge. Additionally, the researcher

recommended the development of a model to facilitate the effective provision of prostate cancer care services in Namibia.

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ABBREVIATIONS AND ACRONYMS

MoHSS:	Ministry of health and social services
UNAM:	University of Namibia
PCa :	Prostate cancer
DRE :	Digital rectal exam
KAP :	Knowledge attitude and practice
IHME :	Institute for health metrics and evaluation
SSA :	Sub-Saharan Africa
NGO :	Non-governmental organization
STI :	Sexually transmitted infection
HPV :	Human papilloma virus
HIV :	Human Immunodeficiency virus
AIDS :	Acquired Immune Deficiency Syndrome
WHO :	World Health Organisation
PHC:	Primary health care
MDT:	Multidisciplinary team
SPSS:	Statistical Package for the Social Sciences
GDP:	Gross domestic product
PSA:	Prostate specific antigen
CAN:	Cancer Association of Namibia

TURP:	Transurethral resection of the prostate
LMIC:	Low and middle income countries
BPH:	Benign prostatic hyperplasia
AJCC:	American Joint Committee on Cancer

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DEDICATION

I dedicate this thesis to all the hardworking health workers.

DECLARATION

I, Fransina Ndapewa Shikalepo hereby declare that this study is a true reflection of my own work and that to the best of my knowledge and belief, this work has not been published or researched on by any other person or submitted for a degree program at any institution of higher learning. No part of this thesis may be reproduced, stored in any retrieval system, or transmitted in any form, or by any means (e.g. electronic, mechanical, photocopying, and recording) without prior permission of the author, or the University of Namibia.

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Signature..... Date.01/04/2021

CHAPTER 1

INTRODUCTION AND BACKGROUND OF THE STUDY

1.1 INTRODUCTION

Prostate cancer (PCa) is the second most frequent cancer diagnosis made in men and the fifth leading cause of death worldwide. The Global Cancer Observatory ("Global Cancer Observatory," 2018) estimate 1,276, 106 new cases of prostate cancer were reported worldwide in 2018, causing 356, 489 (3.8%) of all deaths caused by cancer in men. The prevalence is much higher in developed countries (Rawla, 2019). Prostate cancer incidence and mortality rates are strongly associated with age and the highest incidence is seen in elderly men (>65 years of age) with only 1 in 350 men under the age of 50 years expected to be diagnosed with prostate cancer. The incidence rate increases up to 1 in every 52 men for ages 50 to 59 years and nearly 60 % in men over the age of 65 years. African-American men have the highest incidence of prostate cancer worldwide and are prone to a more aggressive type of prostate cancer compared to white men. They are also more likely to develop the disease early in life when compared to other racial and ethnic groups. Screening is highly recommended in men with a family history of prostate cancer and in African-American men (Taitt, 2018).

According to Weiner, Matulewicz, Eggener, & Schaeffer (2016), prostate cancer incidence is high in the Caribbean and black men in Europe, suggesting that they have a common genetic background which is more prone to the development of cancer. Variations in incidence may be due to under-diagnosis, differences in the screening methods and disparities in healthcare access. The worldwide variation in prostate cancer might also be due to PSA testing. In Europe the frequently diagnosed cancer among men is prostate cancer, accounting for 24% of all new cancers in 2018, with around 450,000 new prostate cancer cases estimated in 2018. Around 20-

40% of the prostate cancer cases in the USA and Europe could be due to overdiagnosis through extensive PSA testing (Sorokin & Mian, 2015).

There is a clear financial burden for the treatment of patients, which will even increase with more patients being diagnosed. There will also be a need for more treatment facilities and more trained specialists. From 2018 to 2040, it is estimated that mortality will increase with 379, 000 deaths worldwide. The highest mortality rate is estimated to be in Africa (+ 124.4%), followed by Asia (116.7%), while the lowest incidence will be registered in Europe (+ 58.3%) (Rawla, 2019). Prostate cancer mortality rates in most western countries including North America as well as in western and north Europe have been steadily declining which may reflect early detection and improved treatment. However, limited resources for screening and detection of prostate cancer which increase the odds of it being detected during the late stages, medical care and assistance are not widely accessible in developing countries, hence the high mortality despite lower incidence (Selli et al., 2014). Most prostate cancer cases are discovered when the cancer is confined within the prostate. In the USA, the 5-year survival rate for men diagnosed with prostate cancer is around 98%. Survival varies from 76% in Eastern countries to 88% in Southern and Central European countries. Moreover, survival has increased overtime all over Europe with the major improvement being observed in the Eastern European countries. The earlier the different types of cancers are diagnosed the earlier they can be successfully treated (Okobia, Zmuda, Ferrell, Patrick, & Bunker, 2011).

1.2 BACKGROUND OF THE STUDY

Over the last 20 years, there has been an increase in incidence and mortality from different cancers globally but more notably in low and middle income countries (LMICs). It was reported that most new cases of cancer are now found in Africa and LMICs increasing from 15% in 1970, to 56% in 2008, and projected to reach about 70% by 2030 (Adeloye et al., 2016). The institute for health metrics and evaluation (IHME) study reported a global increase in mortality from prostate cancer estimated at 61% and 83% between 1990 and 2013 respectively. Prostate cancer was reported to be generally higher in black African populations with incidence rates of 34.3 and 22.1 per 100 000 in SSA respectively. South Africa reported 19 cases per 100,000 as of 2010. However, lower PCa incidence rates were observed in northern Africa at 10.6 per 100 000 (Adeloye et al., 2016).

In Namibia, prostate cancer is among the five most frequent cancers reported among almost all ethnic groups and regions in Namibia (Cancer Association of Namibia, 2019). According to WHO (2017), prostate cancer deaths in Namibia reached 95 or 0.61% of total deaths. The age-adjusted death rate is 22.77 per 100, 000 of the population. Namibia is ranked at number 51 regarding prostate cancer deaths in the world. Furthermore, Cancer Association of Namibia (CAN) has listed prostate cancer among the six most common cancers in Namibia including skin, breast (both in men and women), cervical cancer, Kaposi Sarcoma and colorectal carcinomas (Cancer Association of Namibia, 2019).

The CAN presented the "2016 -2018 cancer awareness and prevention manual" whose aim is to scale up awareness of the fight against cancer and reduce the burden of cancer through early detection (Cancer Association of Namibia, 2019). In addition, CAN also provide information and support for prostate cancer patients in Namibia complemented by other support organisations. Most men do not understand the information provided to them regarding prostate

cancer, hence it is important that nursing interventions address this for each patient (Carter, Bryant-Lukosius, DiCenso, Blythe, & Neville, 2011). The key nursing tasks when caring for men with prostate cancer include the provision of support during initial diagnosis, provision of individualised information, advice on the handling of symptoms and side effects, advice regarding treatment decision making as well as emotional and psychological support (de Moraes Lopes & Higa, 2014).

Nursing care actions for men with PCa should start at the time of the diagnosis when patients must participate in deciding the best course of treatment. Family members and partners should also receive care during this period (Miguel de Sousa Carvalho & Sofia Morais CristÃ£o, 2012). Nurses are expected to encourage patients to describe their experiences with the diagnosis and the illness to promote their understanding of prostate cancer and allay fears and anxiety. Nurses should also provide complete and consistent information to assist patients to understand the full implications of the disease process (Krumwiede & Krumwiede, 2012). Moreover, some challenges encountered in the detection and management of PCa are partly responsible for the increase in cases. These challenges include the absence of resources (low-cost), the absence of community –based screening and health promotion programmes, late presentation of patients to health facilities (usually at advanced stages of the malignancy), fewer options of treatment, high cost and /or unavailability of appropriate medications, lack of adequate follow-up and inherent negative social norms and beliefs about the disease (Amukugo, 2009).

1.3 PROBLEM STATEMENT

Prostate cancer is rated the second most common cancer and the fifth leading cause of cancer deaths globally, with incidence and mortality expected to reach 27 million and 17 million

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globally by 2030 (Adeloye et al., 2016). Statistics from CAN have indicated that there has been an increase in prostate cancer cases with 126 and 311 cases reported in 2006 and 2012 respectively (Haidula, 2016). In 2014 & 2015, 52 and 68 Prostate cancer cases were recorded at Intermediate Hospital Oshakati (Cancer Association of Namibia, 2019).

An inquiry at the Cancer Association of Namibia as well as oncology department and wards dealing with prostate cancer revealed an absence of policies, guidelines or circulars to guide service delivery to prostate cancer patients. Nurses only offer individualised basic care that is not specific to prostate cancer. Psychological and emotional support was rarely provided to prostate cancer patients or their families at these facilities. This highlights a deficiency in terms of provision of prostate cancer care services. There appears to be lack of specialised training among the nurses to manage prostate cancer patients and most of the cases are referred to a specialist. This is a discrepancy as nurses are expected to take part in the provision of cancer care services. It is not clear what could be the reason for this discrepancy hence the researcher was interested in knowing whether nurses are knowledgeable of prostate cancer, the practices to care and support men with prostate cancer and what attitude they have towards early detection, caring and support of men with prostate cancer.

Lack of knowledge and inadequate training of nurses was reported previously to account for poor management of prostate cancer (Glenn, Chawla, Surani, & Bastani, 2009). The above background motivated the researcher to answer the following questions:

- What is the knowledge of nurses on early detection, caring and support of men with prostate cancer?
- What do nurses do during early detection, caring and support of men with prostate cancer?
- What is the attitude of nurses towards early detection, caring and support of men with prostate cancer?

1.4 AIM OF THE STUDY

The aim of the study was to determine, explore and assess the knowledge, attitude and practices of nurses regarding early detection, caring and support of men with prostate cancer at health facilities in Windhoek, Namibia.

1.5 THE OBJECTIVES OF THE STUDY

The objectives of the study were to:

- Determine the level of knowledge of nurses regarding early detection, caring and support of men with prostate cancer at health facilities in Windhoek, Namibia.
- Assess nurse's practices towards the provision of early detection, caring and support services on men with prostate cancer at health facilities in Windhoek, Namibia.
- Explore and describe nurse's attitude on early detection, caring and support of men with prostate cancer at health facilities in Windhoek, Namibia.
- Analyse the association between the variables with regards to early detection, caring and support.

1.6 THE SIGNIFICANCE OF THE STUDY

The results of this study could contribute both to an understanding of the current knowledge, attitude and practices of nurses regarding early detection, caring and support regarding prostate cancer. This new knowledge can be used by training institutions as a reference to craft training programs and continuous professional development workshops that will improve nurses'

knowledge, attitudes and practice. This will lead to an improvement in the care provided to prostate cancer patients.

The information generated from this study will be placed at the service of development, it will be shared to ensure widespread benefits. The Ministry of Health and Social Services can also use these findings to inform recruitment and allocation of nurses to improve early detection, caring and support of prostate cancer patients. Other organisation such as CAN may utilise the findings to develop effective ways to support nurses as they care for prostate care patients. Finally, the study findings will provide information on the knowledge, attitudes and practices of nurses towards early detection, caring and support of PCa which can be used as a reference for future academic research.

1.7 LIMITATION OF THE STUDY

The study relied on a self-reporting and self-rating instrument and could have been potentially affected by self-serving and social desirability bias. However, meticulous attention was given to instrument design to make the question short and clear and also participants and respondents were encouraged to be truthfully in their rating.

1.8 DELIMITATION

This study was limited to nurses who handled patients with prostate cancer at health facilities in Windhoek. The findings of the study, therefore, cannot be generalized to other regions within Namibia.

1.9 PARADIGMATIC PERSPECTIVES

According to Hesse-Biber and Leavy (2004), a paradigm is defined as "a theory or hypothesis", a framework within which theories are built that fundamentally influences how you see the world. Paradigms determine your perspective and shape your understanding of how things are connected. Trochim and Donnelly (2002), mentioned that research paradigm can also be seen as the collective set of attitudes, values, beliefs, procedures and techniques that create a framework of understanding through which theoretical explanations are formed. In addition, Burns and Grove (2004) describe a paradigmatic perspective as a way of looking at natural phenomena that encompasses a set of philosophical assumptions and that guides the researcher's approach to inquiry.

1.9.1 Meta- theoretical assumptions

The meta-theoretical assumptions for this study are described below as ontological, epistemological, axiological, methodological and rhetorical assumptions.

1.9.2 Ontological assumptions

Ontology refers to the "study of being", it deals with the nature of reality and it is a system of belief that reflects an interpretation by an individual about what constitutes a fact (Blaikie, 2009). In addition, Burns and Grove (2004) identified two types of ontological assumptions: objectivism also known as "positivism" and "subjectivism". In this study, the researcher used closed-ended questionnaires to obtain quantitative data and semi-structured interviews to obtain qualitative data. Ontology attempts to explain how the phenomenon is subjectively perceived and analysed by a researcher and participants to extrapolate the universal truth about a particular phenomenon. Hence, there is no single reality; there are multiple realities constructed by an individual from her / his own perception and interpretation of a given phenomenon (Edmonds & Kennedy, 2020).

In this study, multiple realities comprised multiple experiences; i.e. the realities of the researcher, the participants, and the readers who are interpreting the study. The researcher used direct quotations from interviews as supporting information. Data that had been gained from observations and interactions during the interviews were divided into sets of themes and summarised to provide clear meanings to the knowledge, attitude and practice of nurses regarding early detection, caring and support of men with prostate cancer (Mertens, 2010).

1.9.3 Epistemological assumptions

Epistemology is concerned with the nature, forms and theory of knowledge as it pertains to how human beings know the world (Lewis, 2018). According to Converse (2012), epistemology is the study of knowledge that addresses the questions of what can be known and who can know it. In this study, the researcher interacted with nurses on a health topic and findings were obtained through semi-structured interviews. The researcher gained an in-depth understanding of the phenomenon as well as specific views, perceptions, cultural background and experiences of nurses regarding their knowledge attitude and practices on early detection caring and support of men with prostate cancer at health facilities in Windhoek.

1.9.4 Axiological assumptions

Axiology refers to a branch of philosophy that studies judgments about the value (Burns & Grove, 2001). On the other hand, axiology is engaged with the assessment of the role of a researcher's value on all stages of the research process. Axiology also includes how people view themselves in relation to others with more emphasis on the role of values and ethics in research. Values shape the interpretations made by the researcher as well as those of the participants. In this study, nurses, as well as the researcher brought their values.

1.9.5 Methodological assumption

Methodological assumption focuses on the analysis of the methods used for gaining the data (Cohen, Manion, & Morrison, 2017). In Normative paradigms, a quantitative scientific method is used to observe objects. It uses a mathematical calculation to generalize findings and to test a theory. In contrast, an interpretive paradigm uses observations and fieldwork notes to investigate an object. An interpretive paradigm tends to use qualitative methods for observation. As a result, the findings can be open to many interpretations, and methodology in critical theory tends to use both quantitative and qualitative approaches. It uses a quantitative approach to control the social setting when doing actions, and a qualitative approach to observe the changes that happened after the actions are given. In this study, a mixed-method approach was used to incorporate both qualitative and quantitative data as described in methodological assumptions (Tshilonggamulenzhe, 2012).

1.9.6 Rhetorical assumption

Rhetoric assumptions underlie the fundamental choices that are made in answering research questions, the overall rhetorical assumption in qualitative research is that you are not "truth-seeking" but instead reporting what reality is through the eyes of research participants (Creswell & Plano Clark, 2011). In this study the researcher reported what she heard in the most objective way possible, respondents were allowed to express their opinions on the attitude of nurses regarding early detection caring and support of men with prostate cancer. In this study, the researcher applied rhetorical approaches to explore and describe the qualitative research results.

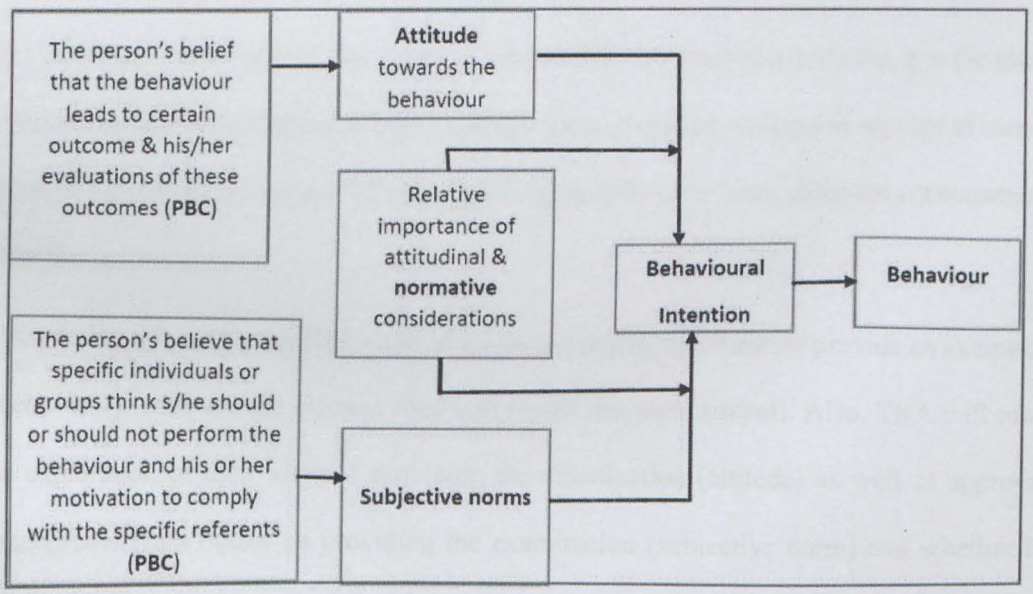
1.10 THEORETICAL FRAMEWORK

This study will adopt the Theory of Reasoned Action (TRA) as the basis to align the discussions in this study. The emphasis of the model is on the function of individual intent in influencing whether a particular behaviour happens (Evans, Coon, & Ume, 2011).

1.10.1 Theory of Reasoned Action (TRA)

The theory was developed in the 1960s by Ajzen and Fishbein (1980) and is founded on the premise that human being reasoning employs logical use of knowledge at their disposal. They postulate that people think through the consequences of their deeds in any given context before deciding to engage or not engage. TRA has been used to describe and forecast a variety of human behaviours. Based on assumptions that humans reason and that the actions in the study are under individual own control, the theory attempts to explain the linkages between individual personal convictions, the outlook of things, intent and conduct (Ajzen & Fishbein, 1980). This can be summarised on the figure below:

Figure 1.1: Theory of reasoned action



Source: Ajzen and Fishbein, (1980)

The tenets of the model are as explained and their definitions as described by Ajzen and Fishbein (1980) are;

Intention: These are specific behaviours that encompass four specific elements that include; time, target, action, and context. Also explained as the perceived likelihood of performing a behaviour. The intent to undertake certain conduct is the best predictor that needed behaviour will be achieved. For accuracy in measurement, intent ought to be described using equal elements which are; action, target, context and time.

Attitude: Behaviour evaluation at a personal level.

Subjective norm: Beliefs about significant others if they allow or not allow the conduct; drive to act in ways that attract acceptance from significant others.

Perceived behavioural control (PBC): Perception that one can take control and mastery over behaviour.

Normative belief: a person's own belief regarding the opinion of others on behaviour and the person's readiness to adopt those opinions.

For purpose of this research, the model of reasoned action tends to clarify the specific intent in determining the knowledge of nurses regarding early detection, caring and support of men with prostate cancer-behaviour and this is carefully guided by ones' idea about the consequences or benefits.

Concerning this study, the TRA seeks to assess the notion that if nurses provide an examination (behaviour), what are the chances they will repeat the same (intent). Also, TRA will provide an exploration of their view of providing the examination (attitude) as well as approval or disapproval from others on providing the examination (subjective norm) and whether early detection, caring and support of men with prostate cancer is within the control of the individual

nurse (perceived behavioural control). This will be determined from empirical evidence generated from the research to identify knowledge, practices and attitudes of nurses concerning early detection, caring and support of men with prostate cancer.

1.11 DEFINITION OF CONCEPTS

The following concepts are derived from the title; knowledge, attitude and practice of nurses regarding early detection, caring and support of men with prostate cancer at health facilities in Windhoek, Namibia.

1.11.1 Knowledge

Knowledge is a familiarity, awareness, or understanding of someone or something, such as facts, information, descriptions, or skills, which is obtained through experience or education by perceiving, discovering, or learning (Mohajan, 2016).

1.11.2 Attitude

An attitude is a way that someone thinks and feel about something or the way that somebody behaves towards something that shows how you think and feels (Lea & Bradbery, 2020). In this study, an attitude refers to the way nurses think and feel about early detection, caring and support of men with prostate cancer at health facilities in Windhoek.

1.11.3 Practices

According to Lea & Bradbery (2020), practice is the actual application rather than just ideas. It is the way of doing something usual or expected way in a particular organization or situation. In this study practices referred to the provision of services regarding early detection, caring and support of men with prostate cancer at health facilities in Windhoek by nurses.

1.11.5 Early detection

Early detection is the recognition of early symptoms that could potentially develop into cancer (Dillner, 2019). In this study, early detection refers to the ability of nurses to discover prostate cancer at its initial stage.

1.11.6 Caring

Caring is feeling or showing concern for or kindness to others (McIntosh, 2013). In this study, caring means the act of kindness by nurses onto others.

1.11.7 Support

Support is the act of agreeing and giving encouragement to someone or something because you want him, her or it to succeed (2013). In this study, support refers to the act of agreeing and giving encouragement by nurses to patients with prostate cancer.

1.11.8 **Man**

A man is an adult male person, as differentiated from a boy or a woman, a male is physiologically equipped to initiate conception but not to bear children (Lea & Bradbery, 2020).

1.12 OUTLINE OF CHAPTERS

The research is divided into the following chapters:

Chapter 1: Introduction and Background of the Study

Chapter 2: Literature Review

Chapter 3: Research Design and Methodology

Chapter 4: Presentation and Discussion of Results

Chapter 5: Conclusion, Recommendation, Discussion and Limitation.

1.13 SUMMARY OF CHAPTER 1

This chapter covered the introduction and background of the study, the problem statement, and purpose of study, objectives and definition of concepts as well as the significance and limitation and delimitation of the study. The next chapter will deal with the literature review.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter will focus on the general aspect of prostate cancer, onset; early symptoms and advanced symptoms of prostate cancer. Types and staging of prostate cancer, prostate cancer treatment, effects of prostate cancer on the quality of life, psychological and relationship implications; fatigue, screening and diagnostic test, nurses role on diagnosis and treatment of prostate cancer. Risk factors associated with prostate cancer; age, family history, dietary risk factors and ethnicity. The review will also focus on the knowledge of nurses regarding early detection caring and support of men with PCa, the attitude of nurses regarding early detection caring and support of men with PCa and the practices of nurses regarding early detection caring and support of men with PCa.

2.2 GENERAL ASPECT ON PROSTATE CANCER

The prostate is the male sexual accessory gland. It is located on the floor of the pelvis and surrounds the neck of the bladder and the urethra. The urethra runs from the bladder through the prostate and to the hip of the penis. The average weight of a healthy prostate is approximately 11 grams ranging between 7 and 6 grams. The key function of the prostate gland is to store part of seminal fluid and assist ejaculation during sexual activities (Singh & Bolla, 2019). A study carried out by Aaron, Franco and Hayward (2016), described the prostate as a gland that is enclosed by a fibrin elastic tissue layer, leading to septa extending inwards and dividing the prostate into different lobes and zones; the peripheral zone is the outermost area of the prostate. It is located close to the wall of the rectum and it makes up an estimated 70% of a healthy prostate gland. Nearly 80% of the prostatic cancers develop in the peripheral zone.

The central zone forms 25% of the prostate tissue and it surrounds the ejaculatory ducts. The central zone is active in the mobilisation of semen throughout the urethra and out of the body. The transitional zone of the prostate makes up around 5% of the prostate at puberty and it is located next to the urethra. The same study also emphasized that the anatomy of the prostate is made up of three lobes; central lobes and lobes on either side called the anterior lobes. The central lobe of the prostate is pyramid-shaped and rests between the ejaculatory ducts and the urethra. The anterior lobes of the prostate rest near the urethra, they are made up of muscle and fibrous tissue. However, this tissue does not secrete fluids. The prostate gland has a lot of tubular structures passing within it, including the proximal urethra and two ejaculatory ducts. The ejaculatory ducts enter the prostate immediately as it emerges from the seminal vesicles. These ducts travel from the back and lateral to medial and inferior. They converge at the urethra within the prostate gland on an area known as the seminal colliculus (Arista-Nasr, Trolle-Silva, Aguilar-Ayala, & Martínez-Benítez, 2016).

2.3 ONSET OF PROSTATE CANCER

The onset of prostate cancer is described under; the early symptoms and advanced symptoms of prostate cancer.

2.3.1 Early symptoms of prostate cancer

Prostate cancer tumours are usually slow-growing and symptoms may not occur for many years. In the early stages of prostate cancer, there are often no symptoms, but screening can pick up changes that present prostate cancer. However, because of its location surrounding the urethra symptoms for the disease most commonly affect urination (Sciences, 2011). Moreover, the early symptoms of prostate cancer are; difficulty in starting and maintaining urination, frequent urge to urinate, blood in the urine or semen and pain on ejaculation and experience of

difficulty in maintaining an erection. The bladder and the prostate are very close together that is why one of the common areas for prostate cancer to spread is to the bladder. The prostate cancer tumour presses on your urethra, causing men to experience difficulty in starting and maintaining urination (De Jong, Pinckaers, Ten Brinck, Lycklama À Nijeholt, & Dekkers, 2014). The enlargement of the prostate also known as benign prostatic hyperplasia (BPH) obstructs the bladder which leads to a frequent urge to urinate especially at night. The bladder may also compensate by working harder to release urine which causes bleeding and blood in the urine (Mathers, Degener, Sperling, & Roth, 2017). Hematospermia, is the presence of blood in ejaculation, in men aged 40 or older, Hematospermia is an indication of prostate cancer whilst in men younger than that it is often benign and a self-limiting condition which could be caused by infections. Prostate tumour and obstruction caused by cysts of the seminal vesicles can lead to blood in ejaculation (Akhter, Khan, & Chinegwundoh, 2013).

2.3.2 Advanced symptoms of prostate cancer

Advanced prostate cancer symptoms include; back pain, change in bowel habits, tiredness, weight loss, bone fracture and swelling in the legs, ankles and feet. Maintaining a healthy weight during the treatment of prostate cancer becomes difficult most of the patients experience loss of appetite, the taste of food becomes unnatural (Drudge-Coates et al., 2018). Marcellin also mentioned that when you are not eating and feeling anxious about your prostate cancer prognosis and treatment, it becomes easy to burn off calories and lose weight. In prostate cancer, a significant amount of weight loss and anorexia are very common. Some patients may experience nausea and vomiting as side effects of treatment, some have sores in the mouth which make it difficult for them to chew and swallow food.

About 80% of prostate cancer cells spread to the bones; hip, spine and pelvis bones, by direct invasion or by travelling throughout the blood or lymphatic system. Once they relocate the

cells begin to grow and form new tumours which cause severe pain and fracture, hormonal therapy for prostate cancer can also cause bone loss, fracture and joint pain (Melton et al., 2011).

The advancement of prostate cancer crowd out other healthy cells in the body when it grows. Tumours can on areas like your spinal cord end cause pain, tingling or swelling in your legs and feet. A change in bowel habits is not so common, but prostate cancer can also spread to the bowel. Cancer first spread to the rectum, a part of your bowel which is very close to the prostate gland (Jayasekera et al., 2019).

2.4 TYPES AND STAGING OF PROSTATE CANCER

Nearly all cases of prostate cancer are considered adenocarcinomas, with other types of prostate cancer only making up 1-5%. Adenocarcinomas make up the vast majority of prostate cancer cases. It has been estimated that roughly 95-99% of all prostate cancer fall under adenocarcinomas within this classification, 9 out of 10 are acinar meaning they develop in acinar cells and increase the prostate-specific antigen (PSA) levels. PSA is a protein made only by the prostate gland and the level of PSA in the blood is used as an indicator to diagnose prostate cancer. However, raised levels can also be a sign of an enlarged prostate, prostatitis and urinary tract infections (Bond-Smith, Banga, Hammond, & Imber, 2012). Ductal adenocarcinomas start in the cells that line tubes and ducts of the prostate gland, and they have a less impaction on PSA levels. Additional but rare cancers include; prostate sarcoma, neuroendocrine tumours, small cell carcinomas, transitional cell carcinomas and squamous cell carcinomas (Baig, Hamid, Mirza, & Syed, 2015).

2.4.1 Staging of prostate cancer

When a patient has been diagnosed with a prostate tumour, cancer must be staged to decide if it has spread beyond the prostate. Staging also provides a better insight into the risk of the disease spreading further so the correct treatment option is selected. The American Joint Committee on Cancer/International Union Against Cancer (AJCC/UICC) developed the TNM stage, which was used to assess the extent of the primary tumour (T) category, the affected regional lymph nodes (N) category and if it has spread or metastasized (M) category (Fine, 2018). However, the TMN stage was as well used to assess the PSA levels and Gleason group, based on the Gleason score. The Gleason score is the strongest clinical predictor of prostate cancer progression, cancers are scored based on their appearance under a microscope. A sample of the prostate tissue is obtained and prepared on microscope slides during a biopsy. Two grade scores are assigned for the two most common tumour patterns, and these scores are added together for a final Gleason sum. Gleason scores range from 1 to 5, where 5 has the poorest prognosis and Gleason sums range from 2 to 10. For the primary grade, pathologists identify which pattern corresponds with at least 50% of the tumour and the secondary grade represents the minority of the tumour. The prognosis for prostate cancer can be variable. More aggressive tumours, with Gleason sum 8, 9 or 10, can lead to death in a short space of time, however, lower grades, with Gleason sum of 6 or lower, may not see any clinical consequences (Martin, Mucci, Loda, & DePinho, 2011).

Prostate cancer has four stages; stage 1 is called the early stage, in this stage the cancer is small and only in one area most of the cells are normal and the prostate gland feels normal. In stage 2 and 3, the cancer is larger and has grown into nearby tissues or lymph nodes, a lump can be felt in the prostate by the examining finger. When prostate cancer gets to stage 4, it has advanced and metalized to other parts of your body (Sun et al., 2014).

2.5 TREATMENT OF PROSTATE CANCER

Once the prostate cancer is of low grade and confined to the prostate some form of surgery or radiation is used. Chemotherapeutic and hormonal options are ordinarily used when the disease had advanced and the malignancy has spread from the prostate to other areas of the body. Treatment for cancer that is confined to the prostate gland can result in a cure, unlike for those that have spread to other areas of the body where treatment is mainly used to delay disease progression or palliative symptoms (Recine & Sternberg, 2015).

Therapeutic options for localized disease include surgical and non-surgical approaches. Surgical approaches include; radical prostatectomy, Transurethral resection of the prostate (TURP), and cryosurgery. Radical prostatectomy is very effective in the treatment of early-stage cancer, the entire prostate is removed if cancer has not spread out of the prostate, and PSA levels can drop to zero (Nader, El Amm, & Aragon-Ching, 2018). Nader et al outlined that radical prostatectomy was connected to a reduction in the rate of death from prostate cancer, as well as a reduced risk of prostate cancer. Elder men who have other health complications undergo a TURP procedure, the tissue surrounding the urethra is surgically removed and hence the prostate gland is not entirely removed. Other age groups who are interested in a less aggressive form of surgery, their malignant part of the prostate are cooled with a metal probe, this procedure is done by a small portion of men and it is known as cryosurgery (Caso, Tsivian, Mouraviev, & Polascik, 2012).

Non-surgical options for the localized disease include –external and internal irradiation, watchful waiting and external beam radiotherapy (EBR) which uses high- energy X-rays for some men immediate treatment is administered, rather than cancer being observed for signs of progression. Hormone therapies are beneficial in lowering the levels of circulating androgens, which can promote the growth of malignant prostate cancer cells. When hormonal therapy fails

and cancer has spread, a few men choose chemotherapy as a treatment option. Chemotherapy stops the spread of the disease and reduces physical complications (Eton, Lepore, & Helgeson, 2001).

2.6 EFFECTS OF PROSTATE CANCER ON THE QUALITY OF LIFE

Men with localized prostate cancer have more sexual problems than normal ageing men. Problems of sexual function develop early in men with localized prostate cancer both treated and not treated, these men have a great difficulty regaining the level of sexual function before treatment. Reduced erectile capacity is a major source of psychosocial distress in men with prostate cancer, most men with prostate cancer have reported severe distress because of decreased orgasm pleasure (Grondhuis Palacios et al., 2019).

Surgical hormones therapy to block testosterone increases the frequency of erectile dysfunction. Radical prostatectomy also contributes to nerve injuries caused by intraoperative nerve traction, thermal injury, and ischemic injury which in result also increases erectile dysfunction. A sudden reduction in sexual function in patients with prostate cancer occurs because of psychological instability caused by the occurrence of cancer and also depression. Prostate cancer mostly has a negative effect on the mental status of the female partner, married couples face fear and anxiety regarding the effects of prostate cancer on their lives. It also creates an unstable mental status in their sex life, results in reduced sexual activity (Kirby, Watson, & Newling, 1998).

2.6.1 Psychological and relationship implications

Depression is associated with prostate cancer, especially in men who are suffering from erectile dysfunction. A study by Fervaha et al. (2019) discovered that the rate of depression was extremely high in men with erectile dysfunction (56%). It is a common assumption that men initiate sexual contact and sexual intimacy. Men state that engaging in a sexual experience reminds them of their "lack of manliness," oftentimes increasing their distress or depression over the loss of erections. Most men after prostatectomy may worry about the presence and leakage of urinary catheters. Men begin to stay away from social places and when this happens it is an indication of major depression and significant anxiety. Men endure a lot of pain due to metastases, however, older men do not adhere to the intake of medication or enough dosages to alleviate their pain, because they fear the side effects of medication (Muralidharan & Smith, 2013). Men with PCa and their family members need to be heard, supported, and given opportunities to participate in care planning and decision making through individualized focused services (Harju et al., 2018). Nurses need to be able to encourage patient and their families positively and provide hope to family members with prostate cancer (Reb, 2007). Nurses must assess and continually monitor levels of depressive symptoms, sexual function distress, marital interaction distress, and any other indication for psychosocial interventions in men who have undergone RP and their partners (Bloch et al., 2007). Patients reported significantly more distress about sexual function than did their partners, and partners reported significantly more marital interaction distress than did patients (Schafer & Keith, 1983). Partners tend to reassure patients who experience impotence and do not address their own sexual needs (Bloch et al., 2007).

2.6.2 Men experience fatigue

Men who have lived active and independent lives are most fatigued. They normally end up depending on nurses, family members and friends, which further reminds them of their lives before they had prostate cancer. Treatment styles such as; hormonal therapy, pain medications and chemotherapy can cause a patient to have fatigue and lack of motivation (Feng, Wolff, Lukkahatai, Espina, & Saligan, 2017). Men experience hot flashes, sweats and discomfort especially at night they have symptoms similar to menopause because of hormonal therapies. Many men become hyper-vigilant and anxious about their PSA test equating any change in the PSA test with "being a dead man" especially after treatment for prostate cancer or after recurrence. Patients with PSA anxiety can result in panic and symptoms of insomnia (Nelson et al., 2009).

2.7 SCREENING AND DIAGNOSTIC TESTS OF PROSTATE CANCER

Two tests are commonly used to screen for prostate cancer. A digital rectal examination (DRE) is a test in which the doctor inserts a lubricated gloved finger into a man's rectum and feel the surface of the prostate through the bowel wall for any irregularities. A DRE can be performed by either a primary care doctor, oncologist or a gynaecologist, no special preparation is needed to perform a DRE but normally an examination of the anal area is done to examine the presence of haemorrhoids and fissures. Prostate cancer tests are costly, regardless of who might pay for them. The resource categories include direct and indirect costs. Direct costs include the resources used in the early detection of prostate cancer such as; physicians consultation time, other medical staff such as nurses, medical supplies and equipment. Indirect costs include; patients loss of income from time off from work, loss of leisure time, transport, and travel time

to do follow up visits especially patients coming from a different region to consult an oncologist (Ekwueme, Stroud, & Chen, 2008).

2.7.1 Digital rectal examination (DRE)

A DRE can cause severe harm and damage to anal haemorrhoids and fissures. The doctor or examiner feels for bumps to see whether they are soft or hard and any other abnormalities an examination of the lower colon is also done. This examination is done within a few minutes and therefore does not require adverse time (Walsh, Considine, Thomas, Lynch, & Manecksha, 2014). Walsh et al (2014) concluded that a DRE is a key part of the primary assessment of prostate cancer. A digital rectal examination should be performed on all the patterns presenting with any lower urinary tract symptoms including; nocturia, urinary frequency, hesitancy, urgency or retention.

The national institute for health and care excellence (NICE) has recently updated the guidance on recognition and referral of suspected cancer in the United Kingdom, it further suggested that a DRE should be performed on all patients presenting with urinary tract symptoms. However, a study conducted by Jones, Friend, Dreher, Allgar, and Macleod (2018) discovered that DRE is only 42.3% effective in detecting prostate cancer in symptomatic patients. The test is simple and safe. It is called digital because it is performed by using a finger, the accuracy of this test depends on the physician doing the test. Moreover, early cancerous tumours are often too small to be detected during a DRE, some are located in areas a doctor's finger cannot reach. Sometimes clinicians who only use DRE alone to screen for prostate cancer miss the smallest and most treatable tumours (Gan, Harris, & Green, 2015).

In Namibia, many men fear to take the DRE test, men are uncomfortable with the rectal exam they often do not get screened for prostate cancer. Most men also fear being positive and the

possibility of the prostate to be removed. In society, the removal of the prostate is perceived to lessen a man's masculinity and prostate removal has become stigmatized (Moses, 2015).

2.7.2 Prostate-specific antigen (PSA)

Prostate-specific antigen (PSA) is a unique glycoprotein produced by normal as well as malignant cells of the prostate gland. The purpose of the PSA test is to measure the level of PSA in a man's blood and to monitor patients who have a history of prostate cancer to see if their cancer has come back. The results of a PSA test are usually reported as Nanograms of PSA per millilitre (ng/mL) of blood and if a man had a PSA level above 4.0 ng/mL doctors would often do a prostate biopsy to determine whether prostate cancer is present (Smith & Birtwhistle, 2012). Men who present prostate symptoms often undergo PSA testing along with the DRE to assist doctors to establish the nature of the problem. The blood level of PSA is often elevated in men with prostate cancer. Several non-cancerous conditions can as well cause a man's PSA level to rise such as; inflammation of the prostate. The PSA test is normally done by a general practitioner and a registered nurse, where a needle will be used to draw blood from a vein, most likely on your arm. The blood sample is then analysed in the lab to measure your PSA level. The test does not always provide an accurate result because an elevated PSA level does not mean you have prostate cancer and many men diagnosed with prostate cancer have a normal PSA level. False-positive test results can result in distress and anxiety. Sometimes, prostate cancer appears as a slow-growing tumour that does not result in illness, but you may experience significant anxiety just knowing it's there (Simpkin et al., 2015).

2.8 NURSES ROLE ON DIAGNOSIS AND TREATMENT OF PROSTATE CANCER

Nurses are critical to the delivery of high-quality, efficient care. Nurses are responsible for ensuring men have the support they need throughout their cancer journey, they are responsible

for maintaining continuity care. The primary responsibility of a nurse is to provide information and support to men in making a treatment decision. Patient's views and quality of life may change over the years due to prostate cancer treatment and nurses should regularly ask patients whether their side effects are troubling them. After treatment, nurses should assess patients for side-effects and render formal assessment and treatment for troubling symptoms (Bagnall, 2014). Treatment for prostate cancer affect masculinity, some men develop breast, testicular shrinkage and loss of strength. Some men joke about their feminisation, this may hide their psychological distress. Nurses need to be alert to cues and offer patients referral to professionals for help with psychosexual issues, ensure patients make the right choices to maintain the quality of life (Paterson, Kata, Nandwani, Chauhury, & Nabi, 2017). A study conducted by King et al., (2015), indicated that men who received care from a cancer nurse reported a positive experience of allowing them to discuss non-medical aspects of the illness. After some treatment options for men have failed they valued nurses input, nurses sometimes organized or referred patients to support groups and helped men reframe their illness experience positively, allowing better adaptation and coping skills. King et al., (2015) discovered that patients who consulted a nurse were more likely to have gained written information and clear explanations about their test, treatment options and sources of support.

2.9 RISK FACTORS ASSOCIATED WITH PROSTATE CANCER

Prostate cancer is the second most incident cancer and the fifth cause of death by cancer in men worldwide. There are multitudes of risk factors which are associated with the high prevalence of prostate cancer. Some of the factors are age, family history, ethnicity and diet.

2.9.1 Age

Age is one of the strongest risk factors for prostate cancer, it is more common in men over the age of 65, representing approximately 85% of all cases diagnosed. It has a much lower incidence in men younger than 50 (less than 0.1% of cases). The introduction of PSA testing in the early nineties caused the incidence of prostate cancer in men aged 50-59 years to rise to 50%. Most men would have prostate cancer if they lived to be more than 100 years old. Small, localized prostate cancers can remain unrecognized for many years before progressing to clinically significant disease. The risk of developing microscopic prostate cancer for a man of 50 years is 42% (Leitzmann & Rohrmann, 2012).

2.9.2 Family history

Prostate cancer seems to run in some families' genes and men who have a relative with prostate cancer are twice as likely to develop the disease, while those with two or more relatives are nearly four times as likely to be diagnosed. The risk is high if the affected family members were diagnosed before age 65 and even higher if the family has a strong history of other cancers, such as breast cancer, ovarian cancer, colon cancer, or pancreatic cancer. Positive family history is a risk factor for prostate cancer diagnosis, having a first-degree relative diagnosed with prostate cancer will have a major risk factor for future prostate cancer development to the index patient. Positive family history is a key factor to identify those individuals who have inherited predisposition to prostate cancer (Randazzo et al., 2016). Another study by Selkirk, Wang, Lapin, and Helfand (2015) does however not support family history to be a risk factor of prostate cancer as in this study man who did not have a family history were re-categorized with higher-grade disease at the same frequency (30.9% vs. 32.8%). There was no available evidence to indicate that men with a family history with higher-grade disease had more aggressive pathology than men without a family history. The same

study thus concluded that men with a family history of prostate cancer are not having an increased risk of prostate cancer if they are monitored actively.

2.9.3 Dietary risk factors

Diet risk factors have a role in the creation of prostate cancer and diet risk factors are related to 35% of cancer mortality and 10-12% of prostate cancer mortality. The main diet risk factor for the development of prostate cancer is dietary fat. The relationship between dietary fat intake and prostate cancer has been proposed through the high correlation between per capita fat intake and the large international difference in prostate cancer rates. The early epidemiological evidence on fat and prostate cancer consisted and suggested a possible causal relationship. Fat intake is regarded as a high-risk factor for prostate cancer than any other dietary component. Fat is the most energy-dense dietary component. Chemically fat is composed of a glycerine backbone containing three fatty acids namely Monosaturated fatty acids (MUFA), Polysaturated fatty acids (PUFA) and Saturated fatty acids (SFA). Their biological properties differ by the degree of saturation and the length of the carbon chain (Hori, Butler, & McLoughlin, 2011). A study done by Gathirua-Mwangi and Zhang (2014), indicated that increased total fat intake, SFA, MUFA and PUFA increase the risk of prostate cancer diagnosed at a young age of 60 years or less. High fat intake may increase the levels of endogenous androgens, the rise in oestrogen androgen in men are critical factors in prostate carcinogenesis. The same study also had the idea that, in the early stages of development, malignant prostate cancer cells require androgen stimulation for growth. However, increased androgen receptor growth is related to progression or switch of hormone-sensitive cancers to hormone-resistant cancers. They formulate the more aggressive form of prostate cancer. Polyunsaturated fat is susceptible to oxidation, formulating lipid radicals and hydro-peroxides that cause DNA damage leading to the formation of prostate cancer. Cholesterol is a major underlying substance for androgen synthesis, meaning dietary fat influence prostate cancer risk though being a major

determinant of plasma cholesterol levels. Fish oil, Eicosapentaecnoic acid (EPA) and Docosahexaecnoic acid (DHA) are forms of fatty acids that play a part in protecting against carcinogenesis.

Dietary fat is a fundamental contributor to obesity, obesity is also regarded is a major risk factor for prostate cancer, but also changes in body composition may affect the quality of life of prostate cancer survivors by increasing the risk of co-morbidities like; cardiovascular disease and by decreasing normal body function systems. Obesity is related to increased incidence of prostate cancer recurrence, which may be attributed to increased adiposity and reduced muscularity in prostate cancer patients who undergo androgen deprivation (ADT). There are several nutritional factors related with obesity and prostate cancer risk, including positive energy balance, red meat and dairy intake, saturated fat, Tran's fatty acid intake and total dietary fat intake (di Sebastiano & Mourtzakis, 2014).

2.9.4 Ethnicity

There is growing evidence that prostate cancer risk, aggressiveness, and prognosis differ substantially by race, ethnicity and geography. Racial difference in tumour biology possibly attributes to differences in hormonal and molecular factors which may lead to more aggressive tumours. Prostate cancer mortality is highest in men of African descent. Based on 2012 the Global Cancer Observatory data, Afro- Caribbean (AC) and Sub-Saharan African (SSA) men suffer from the highest prostate cancer mortality in the world. With rates ranging from (18.7-29.3) deaths per100, 000 populations (Brown et al., 2018). On the contrary, East, Southeast and Southcentral Asian men have the lowest rates of prostate cancer death (2.9, 31 and 6.7) per 100, 000. North African men have rates close to Asians and lower than the global average (7 per 100, 000). Prostate cancer is also known to be very high in Ghanaian men (Rebbeck, 2017). According to Kheirandish and Chinegwundoh (2011), high rates of undiscovered prostate

cancer are found in African descent men with the lowest rates in Asian men. African -American men have a twofold increase risk of presenting with advanced-stage prostate cancer, compared with American descent whites. African-American men have the most comorbidities and the highest PSA levels. It has been previously hypothesized that the higher levels of PSA in African-American men is the inability for them to have a previous PSA test due to less education and poverty. They have the highest Gleason scores, unemployed, have public or no insurance at all, neither do they have any previous PSA test and they have symptoms of urinary frequency. The same study also discovered that African- American men, especially in lower socio-economic groups are often poorly informed about prostate cancer and are less willing than non-hispanic whites to participate in screening programs. Lower socioeconomic levels have less access to health care and preventative services, this delays diagnosis and leads to men presenting with clinically advanced prostate cancer.

2.10 KNOWLEDGE, OF NURSES REGARDING EARLY DETECTION, CARING AND SUPPORT OF MEN WITH PROSTATE CANCER

Medical knowledge is shared with patients by medical personnel including nurses. According to Gigerenzer, Mata and Frank (2013), making informed decisions about prostate cancer screening requires adequate and accurate knowledge. A study carried out in the United Kingdom stated that there is a lack of support for men from lower-income group and these men receive less information regarding prostate cancer (Ferguson, 2018). A study exploring the level of knowledge about prostate cancer screening among medical students in Mexico City concluded that further efforts should focus on increasing educational and training programs (Villarreal-Garza et al., 2010). A nurse is an educator and a coach, nurses provide patients with specific information, and see if men understand the information by using teach-back

methods. Nurses challenge misconceptions and assist patients to create questions for their doctors who will assist them regarding their individualized uncertainties. Nurses should educate patients on the treatment approach, this will ensure that individualised, patient-centred treatment becomes the norm in healthcare (Kapucu & Bulut, 2018). Education plays an important role in prostate cancer knowledge and awareness programs should be organized that would encourage men to go for screening (Asuzu & Elumelu, 2013). Nurses have a vital role in informing the public about prostate cancer through patient education, promotion of changes in lifestyle and diet. Nurses have the responsibility to educate men regarding the benefits and risks of cancer screening as their key role is to provide information and support men (Chapman, 1998).

Nurses also play a very important role in educating clients about health screening with specific emphasis on annual prostate examination to facilitate the early detection of malignancy (Mogotlane, Chauke, Matlakala, Mokoena, & Young, 2018). Nurses should provide patients with adequate knowledge regarding diseases commonly occurring in their communities (Meyer, Van Niekerk, Shangase, & Naudé, 2009). Nurses should also ensure optimum patient privacy as privacy is valuable because it encourages various fundamental values including ideals of personhood. Ensuring patient privacy can encourage more effective communication between patient and nurse which is necessary for quality care, increased autonomy, and prevention of economic harm, embarrassment and discrimination (Nass, Levit, & Gostin, 2009). MoHSS Namibia asserted that hospitals must ensure that patient's privacy is respected, especially when the patient is providing personal information or undergoing clinical examination. Nurses are responsible for assessing symptoms of prostate cancer and general wellbeing of patients to treat and refer as appropriate. Some of the symptoms of prostate cancer assessed by nurses include lower urinary tract symptoms and community nurses also take blood

for tests (Turner, 2007). Nurses have to ensure that patients make the right choices to maintain their quality of life (Bagnall, 2014).

2.11 NURSE'S ATTITUDE ON EARLY DETECTION, CARING AND SUPPORT OF MEN WITH PROSTATE CANCER

Nurses often care for men with prostate cancer due to its prolonged clinical course and an increasing number of survivors (Lynch, 2012). A study by Shimizu et al. (2016), found that nurses have a positive attitude towards patients with prostate cancer. In disagreement to that, a study by Kearney et al. (2003), stated that oncology nurses' hold a negative attitude towards cancer and changing these attitudes present a significant challenge. Nurses hold negative views about prostate cancer patients and this is reflected in the attitudes. Many nurses in the oncology ward have had little, if any, specialist education in the care of prostate cancer patients and therefore do not understand the extent of their needs. Nurses have reported inadequate resources often prevented them from being able to provide the time, support and level of care required to effectively nurse PCa patients. Patients exhibited low levels of satisfaction with nursing care and their attitudes were negative (Coban & Yurdagul, 2014). In a study by De Paiva, Da Motta, and Griep, (2010) in Brazil whose aim was to describe the knowledge, attitudes, and practice regarding the detection of prostate cancer of nurses, the study concluded that participants with positive attitudes reported almost twice adequate practice for the early detection of prostate cancer and the use of constant, persistent, and dynamic educational activities is a fundamental requisite for the prevention and early detection of prostate cancer (De Paiva et al., 2010).

A 2015 survey by the Michigan Public Health Institute (MPHI) investigated the attitudes and practice patterns of nurses in Michigan. The same survey found out that, only two-thirds

(67.6%) of nurses cared for men during and after prostate cancer treatment, whilst some of them felt very uncomfortable managing the side effects of prostate cancer treatment MPHI recommended that, to improve quality of care, implementing prostate cancer survivorship care plans across specialities, or transferring primary responsibility to primary care providers through survivorship guidelines, should be considered.

Prostate cancer is for many men a chronic disease with a long life expectancy after treatment. Cockle-Hearne et al. (2013), argued that the impact of prostate cancer therapy on men has been well defined, but the authors indicated that the explanation of the consequences of cancer treatment has not been modelled against the wider variables of long-term health-care provision such as the attitude of nurses on early detection, caring and support of men with prostate cancer. The same authors found that all nurses in their case study had a positive attitude towards early detection, caring and support of men with prostate cancer through their study logistic regression indicated that lack of post-treatment nursing care significantly predicted unmet need. Cockle-Hearne et al. (2013) explained that several different aspects of nursing care significantly had an impact on men's outcomes. The same study reported that men were found with poor contact with the nurses while the nurses were found with a positive attitude towards early detection, caring and support of men with prostate cancer which lead to 81% of the men left with some unmet supportive care needs including psychological, sexual and health system and information needs. Cockle-Hearne et al. (2013), recommended that imperative to improving men's treatment outcomes is to also consider the access to nursing and the components of supportive care to be provided, especially the attitude of the nurses before, during and after therapy.

2.12 NURSES' PRACTICE ON EARLY DETECTION, CARING AND SUPPORT OF MEN WITH PROSTATE CANCER.

Around the time of diagnosis men with PCa normally describe physical and emotional difficulties (Carter et al., 2011). It is always hard for men to make treatment options for early prostate cancer. Prostate cancer leaves many men to struggle with quality of life issues, and the thought of having the disease in their bodies for a long time. It is difficult for men, especially young men to live with urinary and sexual dysfunction for long periods. Men with prostate cancer all require support and information when making treatment decisions (Irvine & Chung, 2014). Nurses are responsible for educating patients about how the treatment works and their side effects. They should come up with ongoing physical and psychological care for patients' for them to go through the cancer experience. Nurses should provide expert coordinated support to patient's physical, emotional, psychological and social needs. Access to a good nurse is associated with good quality care (Sidana et al., 2012). To assist patients in understanding the full implication of their disease, nurses should provide accurate, complete, and consistent information (Calabrese, 2004; Krumwiede & Krumwiede, 2012). Many prostate cancer patients' experience anger when they do not understand the information regarding their treatment and diagnosis (Carter et al., 2011).

A study conducted in Uganda stated that inadequate health facilities hinder quality nursing care, when patients do not have enough health facilities they do not get a chance to adequate treatment and thus prolongs treatment as well (Mosadeghrad, 2014). Factors that are hindering quality nursing care are; nursing shortages, higher morbidity and mortality rates (Hartman, 1965). Shortage of nurses leads to many negative aspects within the hospital facility, patients do not get their medication on time, nurses are overwhelmed by work and sometimes they do not even administer medication at all (McKibbin, 1990). Nurses experience difficulty to meet patients' needs because of the high workload and insufficient staff (Botti et al., 2006). Zhu et

al. (2019), stated that overworking of nurses indicates problematic conditions in the process of delivering nursing care, such as the insufficient provision of effective health care services. Patient's recovery outcomes are negatively affected by high workload (Carayon, 2012). Health care professionals working together can reduce the number of medical errors and the level of patient safety increases (Hughes, 2018). A productive multidisciplinary collaboration can result in important advantages in all the phases and aspects of prostate cancer management (Sciarra, Gentile, & Panebianco, 2013).

Nurses must encourage men with PCa to take part in making the best treatment decisions, and support their families to allow them to face this problem without emotional distress (Calabrese, 2004). Patients that had received help from specialist nurses are more open to talking about the type of treatment they are interested in (Tarrant, Sinfield, Agarwal, & Baker, 2008). Nursing support must address important information to every patient, nurses should make sure that each patient understand the benefits, risks, and potential side effects of available treatment options; and ways to cope with side effects (Calabrese, 2004; Carter et al., 2011; Rayford, 2006).

Nursing care is very important in reducing patients' negative views of prostate cancer (Miguel de Sousa Carvalho & Sofia Morais CristÃ£o, 2012). After the removal of the prostate, nurses should offer general nursing care to patients, such as urinary catheter care by maintaining fluid intake and output and preventing urinary tract infections. Nurses should ensure the provision of appropriate nutrition and hydration; postoperative activities, such as hygiene and surgical wound care and education in the signs and symptoms of postoperative complications, pelvic-floor muscle exercises, and pain control (Da Mata & Napoleão, 2010; Jakobsson, Hallberg, & Lovén, 2014). Upon discharge, nurses should interact effectively with patients to establish contacts, facilitating the detection of problems and implementation of appropriate educational interventions (Santos, Silva, Saldanha, Lira, & Vitor, 2012). Interventions combining written

guidance with oral information are important for the development of home self-care skills (Da Mata & Napoleão, 2010). At the time of discharge, educational interventions focusing on pain control and relief, use of prescription drugs, and urinary catheter care to prevent obstruction are indispensable, as pain and a large number of prescriptions can lead to medication errors at home (Santos et al., 2012).

Nurses can educate patients who feel uncomfortable during hospital appointments by having a telephone consultation. Telephone interventions help patients who may not otherwise obtain psychosocial care due to factors such as isolation, physical limitations, or discomfort with more intimate approaches (Lynch, 2012). Nurses can play an important role in offering advice on the management of PCa complications and providing psychosocial support for patients and their families (Rayford, 2006).

Nurses need to be prepared to support patients with PCa and their families throughout the life experience of this disease, be aware of the impacts of PCa diagnosis and treatment on patients' families, including family members in all aspects of health care and emphasize the importance of support systems in coping with the uncertainties of the disease (Krumwiede & Krumwiede, 2012). When PCa results in a terminal diagnosis, nurses must help patients and their families obtain the best end-of-life care (Calabrese, 2004). Family care gives sufficient psychological and emotional support to patients undergoing treatment (Bellou & Gerogianni, 2007). Psychological support is an important part of treatment and recovery for cancer patients, individuals undergoing a cancer-related check-up should be given health counselling (Insel & Roth, 2008). Psychological care is beneficial in reducing distress (Carlson & Bultz, 2003). Therefore, Prostate cancer support groups should be encouraged (Garrett et al., 2014).

2.8. SUMMARY OF CHAPTER 2

The chapter reviewed the relevant literature based on the; general aspect on prostate cancer, the onset of prostate cancer; early symptoms and advanced symptoms of prostate cancer, types and staging of prostate cancer, treatment of prostate cancer, effects of prostate cancer on the quality of life. Screening and diagnostic tests, as well as nurses' role in the diagnosis and treatment of prostate cancer, were also discussed in the chapter. The chapter reviewed knowledge of nurses' regarding early detection care and support of men with prostate cancer, nurses' attitude regarding early detection caring and support of men with prostate cancer and practice of nurses' regarding early detection caring and support of men with prostate cancer. The next chapter will clearly explain the research methodology which was adopted, thus highlighting on the research design, instrument and method used for data collection and analysis.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

The previous chapter focused on the literature review regarding prostate cancer as well as the knowledge, attitude and practice of nurses' regarding early detection caring and support of men with prostate cancer. This chapter will focus on research methodology under the following headings; research design, population, research setting, sample and sampling, research instrument, the procedure for data collection, pilot study, data analysis, trustworthiness, validity and reliability as well as ethical consideration.

3.2 RESEARCH DESIGN

A research design is a clear structure within which the study is implemented or achieved (Creswell & Plano Clark, 2011). In this study, a mixed research method was used. Mixed-method research is an approach to inquiry that combines or associates both qualitative and quantitative approaches (Creswell & Creswell, 2018). The researcher chose this method because of the need to provide a more complete and comprehensive understanding of the research problem as well as get the best outcome for research (Creswell & Plano Clark, 2007). A convergent parallel design was utilized in this study to simultaneously collect both quantitative and qualitative data before merging the data and using the results to understand the research problem (Creswell & Plano Clark, 2011).

3.2.1 Mixed method

This study used a mixed-method approach which involves collecting both quantitative and qualitative data and integrating the data. The researcher based the inquiry on the assumption

that collecting diverse types of data best provides a more complete understanding of a research problem than either quantitative or qualitative data alone (Creswell & Plano Clark, 2011). Merging several methods introduces multiple advantages, such as a stronger result, a large approach to research questions and a more comprehensive phenomenological understanding of a topic (Creswell & Plano Clark, 2011). Also, multi-methods reflect complementary strengths and non-overlapping weaknesses, allowing a mixed-method study to create insight not possible when only qualitative or quantitative data are collected.

3.2.2 Quantitative design

The quantitative study is an inquiry into a social or human problem, based on testing a theory composed of variables measured with numbers and analysed with statistical procedures to determine whether the predictive generalisations of the theory hold (Creswell & Creswell, 2018). In this study, a quantitative approach was used to determine and assess the knowledge and practice of nurses regarding early detection, caring and support of men with prostate cancer at health facilities in Windhoek, Namibia.

3.2.3 Qualitative design

Qualitative research is primarily concerned with stories and accounts of events; including subjective understandings, feelings, opinions, and principles (Burns & Grove, 2004). In this study, a qualitative research approach was used to explore and describe the nurse's attitude on early detection, caring and support of men with prostate cancer at health facilities in Windhoek, Namibia. This enabled the nurses to freely express their thoughts and feeling without being restricted to predetermined responses such as in quantitative approach.

3.2.4 Convergent parallel design

A convergent parallel design entails that the researcher concurrently conducts the quantitative and qualitative elements in the same phase of the research process, weighs the methods equally, analyses the two components independently, and interprets the results together (Creswell & Plano Clark, 2011). In this study a convergent parallel design was utilized, to simultaneously collect both quantitative and qualitative data, merge the data and use the results to understand the research problem.

3.2.5 Descriptive Design

A descriptive design refers to the exploration and description of phenomena in real-life situations and provides an accurate account of the characteristics of particular individuals, situations, or groups (Burns & Grove, 2004). In this study, descriptive design was used to enable an in-depth description of the current knowledge, attitude and practice of nurses.

3.2.6 Analytical design

This design is interested in the cause and effect of relationships and correlations in phenomena, moreover, the essence of an analytic study is that groups of variables are compared to estimate the magnitude of the association between exposures and outcomes (Creswell & Creswell, 2018). This design helped the researcher to understand the relationship between variables. In this study, the analytical design was based on objective four, which was to analyze the association between the variables with regards to early detection, caring and support.

3.3 POPULATION

"A population comprises the total collection of all the units of analysis about which a researcher requires to reach a distinct conclusion" (Grove & Gray, 2018, p. 229). The population for this study were nurses at health facilities in Windhoek that are involved in the management of prostate cancer. The total size of the population was 202 nurses (N=202). For all the objectives the study population was the same.

3.4 RESEARCH SETTING

This study was conducted at selected public health facilities in Windhoek that are fully owned by the Namibian government. According to the Khomas Regional Health Directorate, the total number of health facilities in Windhoek is 14, of which: two are hospitals, three are health centres and nine are primary health care clinics. There are two cancer care centres in Windhoek, Dr A Bernard May which is situated and part of Windhoek Central Hospital and the Namibian Oncology centre which is a privately owned cancer centre.

Selected hospitals were Intermediate Hospital Katutura which is a regional hospital where district hospitals can refer their patients and Windhoek Central Hospital the country's main referral hospital. Selected health centres were Katutura health centre and selected clinics were Okuryangava clinic, Khomasdal clinic, Otjomuise clinic, Hakahana clinic, Wanaheda clinic, Donkerhoek clinic and Robert Mugabe clinic. These health facilities were chosen mainly because they had more nurses who dealt with male patients.

3.5 SAMPLE AND SAMPLING METHOD

Sampling is a method of selecting a sub-set from a population to take part in the study (Creswell & Creswell, 2018). For objectives 1 and 2, a stratified random sampling method was used. The stratified random sample aims to lower the possibility for human bias in the determination of cases to be included in the sample, the stratified random sample provides us with a sample that is highly representative of the population being studied (Elfil & Negida, 2017). The population was stratified by health facility and sample size proportional selected.

The sample size was calculated using Solvin's formula as shown below:

Sample size = $n = \frac{N}{1+N\times e^2}$ $\frac{202}{1+202\times 0.05^2}$ n= 134

n= sample size e= margin of error N= Total population

The following table shows how the sample was proportionally distributed by health facility size.

Table 3.1: Sample sizes for nurses within health facilities

Health facility	Total Population	Proportional Sample size
Katutura state hospital	50	33
Windhoek central hospital	45	30
Katutura health centre	25	16
Okuryangava clinic	15	10
Khomasdal clinic	12	8
Otjomuise clinic	13	9
Hakahana clinic	12	8
Wanaheda clinic	10	7
Donkerhoek clinic	9	6
Robert Mugabe clinic	11	7

However, the response rate was 78% as 105 questionnaires were received from participants. A response above 60% is sufficient to obtain both a meaningful statistical analysis and acceptable results (Fincham, 2008).

For objective 3, a purposive sampling method was used because it is considered as the most appropriate method to address the purpose and is useful for exploratory study (Burns & Grove, 2004). Ten interviews were conducted with nurses from different health facilities. The sample size in this objective was determined by data saturation. Saturation is a point in which data no longer comes in during the data collection process (Grove & Gray, 2018).

The inclusion criteria

Inclusion criteria are evaluated for eligibility based on relevance and acceptability (Meline, 2006). The inclusion criterion in this study was nurses who have worked in either of the health facility for more than one year.

The exclusion criteria

Exclusion criteria are basic features for consideration which allow the researcher to exclude the participant who did not have the characteristics that the researcher was interested in, although their inclusion would not have met the purpose of the study (Burns & Grove, 2004). In this study nurses who have worked in the health facilities in Windhoek for less than one year were excluded because they had limited exposure to caring for men with prostate cancer.

3.6 DATA COLLECTION

Data collection is a procedure of gathering data from all the important sources to find answers to the research problem, test the hypothesis and assess the results.

3.6.1 Research Instruments

For objectives 1 and 2, self-administered structured questionnaires were developed with close-ended questions and given to respondents (see Annexure H). The questionnaire consisted of three sections: Section A, to obtain respondents socio-demographic characteristics; Section B, to obtain information concerning prostate cancer knowledge:

Section C, to obtain information on the practice of nurses regarding the provision of services (early detection, caring and support). For section B, a three-point Likert scale was used in this study to measure the knowledge of nurses, indicating for each dimension if they 1=agree, 2=neither agree nor disagree, 3=disagree and for section C; 1= yes, 2=sometimes and 3= no at all. A Likert scale measures an ordinal variable with response options (Kobus, 2016).

For objective 3 which is a qualitative study, 10 semi-structured interviews were conducted using an interview guide with open-ended questions (see Annexure I). Field notes were also collected during the interviews. In this study all participants were asked the same main question;

- *What do you think about early detection, caring and support of men with prostate cancer?*

The interviewer invited participants to give more information or explain themselves further by probe follow-ups. Creswell and Plano Clark (2011) describe probing as eliciting more useful information. This is a way of encouraging participants to talk more freely and explain themselves more clearly while providing detailed information.

3.6.2 Procedure for data collection

For objectives 1 and 2 self-administered questionnaires were given to respondents to fill them in on their own and drop them in a box in their supervisor in charge's office. One hundred and thirty-four (134) questionnaires and consent forms were printed according to the researcher's calculated sample size. Informed consent was obtained by the researcher after explaining the study aims and objectives to the respondents before recruitment. Respondents were given enough time to complete the questionnaires. The researcher collected data over three months. **For objective 3**, the researcher conducted face to face interviews with individual participants. Before the interviews, informed

consent was obtained, the purpose of the study was discussed with purposively selected participants, a tape recorder was prepared and individual interviews were conducted among participants The interviews were conducted in any room or office available that was quiet and ensured privacy. The researcher collected data over one month.

3.6.3 Validity and reliability for the quantitative approach

Validity

According to Bernard (2012), validity refers to the accuracy and trustworthiness of instruments, data, and findings in research. Content validity is obtained when an instrument has correct content for measuring a major concept, or construct (Bernard, 2012). In this study content validity was achieved through an extensive literature search on nurse's knowledge, attitude and practises on early detection, caring and support of men with prostate cancer which ensured that the data collection instrument had all the necessary questions for addressing these issues. Validity was also ensured by doing a pilot study to ascertain if the questionnaire was valid enough to be utilized and collect adequate and sufficient information.

Reliability

Kobus (2016) defines reliability as the degree to which the same instrument provides a similar score when used repeatedly. Reliability of the study's data collection instrument was ensured by running Cronbach's alpha test for each category of items. Kobus (2016) states that Cronbach's alpha is a measure of internal consistency. The research instrument was provided to nurses working in the outpatient department and other wards to test for reliability and both nurses agreed on the research instrument, hence the research instrument of this study was reliable.

3.6.4 Trustworthiness for the qualitative approach

The researcher used the strategies of credibility, dependability, transferability; confirmability and inferential validity to establish the trustworthiness of the qualitative study (Burns & Grove, 2004; Creswell, 2007).

Credibility

Credibility refers to the confidence one has in the truth of the findings of a study that could be established by complying with different methods, e.g. prolonged engagement and support. According to Creswell (2007), spending prolonged periods in the field enables the researcher to develop an in-depth understanding of the phenomenon under study, and can convey detail about the people that lead to greater credibility for a narrative account. Table 3.2 below shows how credibility was applied in this study.

Table 3.2: Criteria for credibility and its application

Criteria	Application
Prolonged engagement	• Staying in the field until data has been saturated. • This will enable the researcher to gain trust from the participants by establishing rapport with them. Close rapport with participants provided access to richer information.
Member checking	• The researcher solicited participants' views on the credibility of the findings and interpretations by replaying the tape.
Persistent observation	• By consistently pursuing interpretations in various ways and look for multiple influences.
Referral adequacy	• By determining that all materials needed to document findings are available.

Transferability

Transferability refers to the extent to which qualitative findings can be transferred to other settings, as an aspect of a study's trustworthiness (Creswell, 2007). The researcher ensured transferability by dense description and purposive sampling. The researcher needs to ensure transferability by providing sufficient (thick) descriptive data in the research report for readers

to evaluate the applicability of the data to other contexts. Application of transferability in this study is detailed in Table 3.3.

Table 3.3: Criteria for transferability and its application.

Criteria	Application
Dense description	• The researcher will ensure transferability by providing sufficient (thick) descriptive data in the research report for consumers to evaluate the applicability of the data to other contexts.
Purposive sampling	• A purposive sampling method will be employed to deliberately select the participants who will be able to give rich information about their experiences of caring for mothers' undergone caesarean section at the postnatal ward at Katutura state hospital.

Dependability

Dependability refers to the stability (reliability) of data over time and the conditions (Creswell, 2007). Triangulation means using more than one method to collect data on the same topic. The application of dependability in this study is detailed in Table 3.4

Table 3.4: Criteria for dependability and its application.

Criteria	Application
Dependability audit	• Research methodology and questions contained in the interview guide were checked by the study supervisors for relevance before the actual data collection. • The study's methodology will be described in detail.
Triangulation	• Individual interviews and field notes will be used as methods of data collection. The researcher compared the notes with the recordings.
Peer examination	• Research experts were involved to give opinions on the study.

Confirmability

Confirmability describes objectivity; that is, the potential for congruence between two or more independent people about the data's accuracy, relevance or meaning (Burns & Grove, 2004). It guarantees that the findings, conclusions and recommendations are supported by the data and that there is an internal agreement between the investigator's interpretation and the actual evidence (Brink, Van der Walt, & Van Rensburg, 2017). The application of confirmability in this study is shown in Table 3.5 below.

Table 3.5: Criteria for confirmability and application

Criteria	Application
Confirmability audit	• Literature review was conducted for this study. • The researcher attended the thesis lessons at the University of Namibia at the beginning of the course, which equipped the researcher with the necessary knowledge to pursue the study.

3.6.5 Pilot study

A pilot study is a small scale introductory study carried out to assess feasibility, duration, cost, adverse events, and enhance upon the study design before the performance of the actual research project (Brink et al., 2017). In this study, the pilot study was conducted by the researcher among 7.5% of the sample size and therefore 10 nurses were used. The pilot study was conducted at Windhoek Central Hospital in ward 2 East, Dr AB May Oncology centre, Katutura health centre and Otjomuise clinic among 10 nurses and this was used to determine whether the recommended study was feasible, and it was also used to refine research instruments, and diagnose problems with the design of the study (Brink et al., 2017). However, nurses who participated in the pilot study did not participate in the main study. To address the first and the second objective, a self-administered questionnaire was used, for the third

objective; individual interviews were used. Five participants took part in interviews for objective 3. The pilot study revealed a lack of participation and interest from some nurses as well as limited time from the nurses to fill in the questionnaire and respond to research questions. All the questions were clear and concise hence no adjustments were made to the research tools after the pilot study. The main study did not include data collected during the pilot study.

3.7 DATA ANALYSIS

3.7.1 Quantitative data analysis

For objectives 1 and 2, self-administered questionnaire responses were entered and analysed using a Statistical Package for Social Sciences (SPSS) software version 24. Univariate and bivariate analysis were done on variables of interest. Knowledge and practises were rated using the following scale: Total knowledge score 21-35 as low, 36-50 as average and 51-63 as high level. Total knowledge on early detection 11-18 as low, 19-26 as average and 27-33 as high level. Total knowledge on caring and support, 10- 16 as low, 17-23 as average and 24-30 as high level. The total practice scores were also rated using the following scores: 20 -33 as good practice, 34 – 47 as average practice and 48 – 60 as poor practice. Total practice on early detection, 10 -16 as good practice, 17-23 as average practice and 24- 30 as poor practice. Chi-squared test was used to test for difference in knowledge and practise between participants from different health facilities and with different demographic characteristics with a significance level (p) set at 0.05. Chi-square indicates whether or not a relationship exists among variables, providing probability that a relationship is the result of chance (Bernard, 2012). Findings were

described in frequencies and percentages and were presented in form of tables and graphs.

3.7.2 Qualitative data analysis

For objective 3, data from audio recordings were transcribed verbatim (see Annexure J). The transcriptions were analysed using Techs method of data analysis (Kobus, 2016). This method of data analysis led to the formation of themes and subthemes for qualitative data (Bailey, 2008). The following steps of Tesch's approach for data analysis were applied in this study as shown in Table 3.6.

Table 3.6: Tesch's steps for data analysis

Tesch's steps of data analysis	Application to the study
1. Make sense of the whole.	The researcher read through all the transcripts and made notes when ideas came to mind. That was done to extract the meaning from the interview transcripts.
2. Pick one of the shortest and most interesting interviews, go through it and find the underlying meaning.	After reading the responses during the interviews repeatedly, the researcher identified main topics that emanated from the interviews.
3. Arrange those topics into columns of major topics, unique topics and leftovers.	Descriptive wording was used to label the main and subtopics to identify and note those topics in the transcripts. Similar topics were grouped and labelled under major topics, unique topics, and additional topics.
4. Assign each topic a code and write the codes next to the appropriate segment of the text to see whether new. Categories and codes emerge.	Codes were allocated to the topics, simply by abbreviating them and the researcher was also mindful of new major categories that could emerge.
5. Find the most descriptive wording for your topics and turn them into categories, seek ways of reducing your total list of categories by grouping topics that are related.	Related topics were grouped. Data were reduced and organised into meaningful categories utilizing a coding system and interpreted referencing relationships that emerged from data reduction.
6. Make a final decision on the abbreviation of each category and alphabetise these codes.	At that stage, the researcher identified names for the categories or themes to organise the coded data into meaningful phenomena.
7. Group the data belonging to each category in one place and perform a preliminary analysis.	The researcher listed the data that belonged to the same category to prepare the data for analysis.
8. Recode your data, if necessary.	The data was analysed according to the identified themes and subthemes.

3.8 RESEARCH ETHICS

Burns and Grove (2001) describe ethics as a system of moral values that is concerned with the degree to which the research procedures adhere to professional, legal, and social obligations to protect the rights of the study participants. The researcher obtained a letter of authorization and Ethical clearance from the University of Namibia (see Annexure A and B). A study approval letter was then provided by the Executive Director, MoHSS (see Annexure C). Permission to conduct the research was granted from Windhoek Central Hospital (see Annexure D), Intermediate Katutura hospital (see Annexure E) and all primary health care facilities (see Annexure F).

3.8.1 Informed consent

According to Slowther et al. (2006), informed consent can only be obtained after participants and respondents have been adequately informed about the risks and benefits of the research project. Written informed consent is necessary to ensure that both participants and respondents understand exactly what they are consenting to. A researcher has to ensure that participants' and respondents' rights are respected and acknowledged by utilizing informed consent. In this study, the purpose and objectives of the study were explained to the respondents and participants before the actual interviews. Respondents and participants were requested to sign an informed consent form (Annexure G). Respondents and participants were informed that the participation was strictly voluntary and that they could withdraw at any stage from the interview.

3.8.2 Confidentiality and privacy

Confidentiality was ensured by not sharing the information linked to the respondent and participant's names with other individuals (Butts & Rich, 2016). Privacy of the participants and respondents was ensured by making sure that no one else has access to collected data except

for the researcher. No data or information was shared without the respondents' or participants' knowledge or against their will and all participants and respondents were made comfortable.

3.8.3 Principle of Anonymity

To ensure anonymity the participants and respondents were not asked their name, they were allocated numbers to identify them. The master list with the participant's names and code number was kept separate from the data collected to protect the participants' anonymity (Butts & Rich, 2016).

3.8.4 Principle of justice

The principle of justice refers to the respondent's and participant's right to fair selection and treatment in the research study (Butts & Rich, 2016). This principle was ensured in the study because the study subjects were selected for the reasons directly related to the research, and not because they were readily available or easily manipulated (Brink et al., 2017; Butts & Rich, 2016). In this study, all respondents and participants were asked similar questions to ensure the principle of justice.

3.8.6 Principle of beneficence and non- maleficence

The principle of beneficence means people must take an active role in promoting good and preventing harm in the world around them, as well as in research studies (LoBiondo-Wood & Haber, 2010). The researcher has an ethical obligation to protect the respondents and participants against any form of harm that could result from their participation in a study. In this study, a variety of options were provided, namely to indicate if they do not want to answer certain questions to alleviate the feelings of discomfort.

3.8.7 Data security

The researcher ensured the safekeeping of the audio recordings and written documents and notes related to the interviews. Data was only accessible to the researcher. The researcher

saved all electronic data on a password-protected computer and kept written interview notes in a lockable file cabinet in a secure building. The researcher anticipates keeping the data for a maximum of five years after the publication of this research report after which the data would be destroyed.

3.9 SUMMARY OF CHAPTER 3

This chapter focused on the methodology under the following headings; research design, population, sample and sampling, research setting, data collection, pilot study, data analysis, and ethics. Furthermore, the chapter thus focused on trustworthiness as well as validity and reliability of the instruments. All ethical considerations in this study were also explained. The next chapter is about the presentation and discussion of results.

CHAPTER 4

PRESENTATION AND DISCUSSION OF RESULTS

4.1 INTRODUCTION

The previous chapter focused on methodology and this chapter focuses on the presentation and discussion of the results, overview of data collection and analysis as well as the themes and subthemes. The results in this chapter were analysed from data collected from nurses through self-administered questionnaires for objective 1 and objective 2 and semi-structured individual interviews for objective 3.

4.2 RESPONSE RATE FOR THE QUESTIONNAIRE

One hundred and thirty-four (134) questionnaires were handed out to respondents and 105 were returned giving a response rate of 78%. A response above 60% is sufficient to obtain both a meaningful statistical analysis and acceptable results (Fincham, 2008). Some of the respondents did not consent to participate in the study and their decision was respected.

4.3 DEMOGRAPHIC DATA OF RESPONDENTS AND PARTICIPANTS

Demographic data is defined as the statistical data about the characteristics of a population, such as age, gender and income of the people within the population (McIntosh, 2013). The demographic data collected in this study were for both respondents and participants and included age, gender, nationality, race, religion and highest qualification.

4.3.1 Respondents' health facility

The study was conducted at different health facilities and each respondent was asked to indicate their health facility and the results are presented in Figure 4.1.

Figure 4.1: Respondents' Health Facility

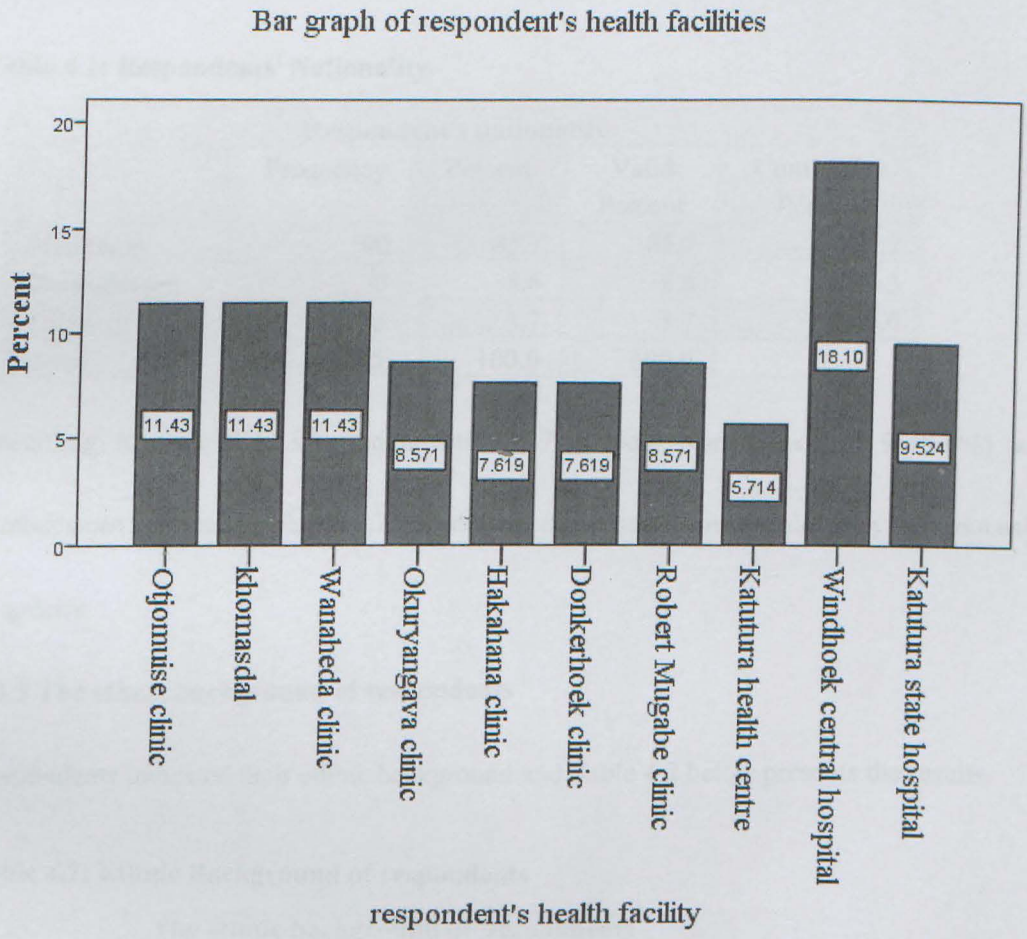


Figure 4.1 shows that data was collected from ten health facilities in Windhoek with the majority of respondents from Windhoek central hospital (18.1%), Otjomuise clinic (11.4%), Khomasdal clinic (11.4%) and Wanaheda clinic (11.4%).

4.3.2 Age and gender of the respondents

The age of the respondents ranged from to with a mean of 34.21 and Std. Deviation of 8.999. The majority of the respondents were females, 69 (65.7%), whilst 36 (34.3%) were males.

4.3.4 Nationality of the respondents

Respondents were asked to indicate their nationality as shown in Table 4.1 below.

Table 4.1: Respondents' Nationality

Respondent's nationality				
	Frequency	Percent	Valid Percent	Cumulative Percent
Namibian	90	85.7	85.7	85.7
Zimbabwean	9	8.6	8.6	94.3
Other	6	5.7	5.7	100.0
Total	105	100.0	100.0	

According to table 4.1, 90 respondents (85.7%) were Namibians and 9 (8.6%) were Zimbabwean nationals whilst 6 (5.7%) indicated other the nationals which they were not asked to specify.

4.3.5 The ethnic background of respondents

Respondents indicated their ethnic background and Table 4.2 below presents the results.

Table 4.2: Ethnic Background of respondents

The ethnic background of respondents				
	Frequency	Percent	Valid Percent	Cumulative Percent
White	4	3.8	3.8	3.8
Black	97	92.4	92.4	96.2
Other	4	3.8	3.8	100.0
Total	105	100.0	100.0	

Table 4.2 indicates that out of 105 respondents, 97 (92.4%) were black, 4 (3.8%) were white and 4 (3.8%) belonged to another unspecified race, of which respondents were not asked to indicate.

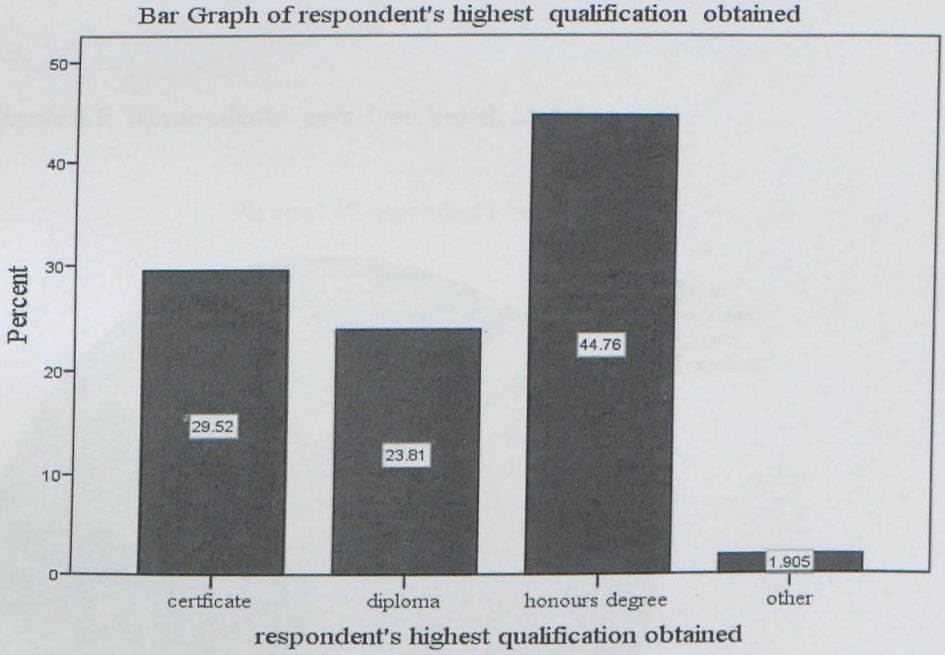
4.3.6 Religion of the respondents

In this study 101 (96.2%) respondents were Christian while 4 (3.8%) indicated other religions which they were not asked to specify.

4.3.7 Respondent's highest qualification obtained

Respondents were asked to indicate their highest obtained qualification and the results are presented in Figure 4.2 below.

Figure 4.2: Respondents' Highest Qualification



From Figure 4.2, 31 respondents (29. 52%) had a certificate, 25 (23.81%) had a diploma, 47 (44.76%) had an honours degree and 2 (1.905%) have other qualifications which were not indicated in the questionnaire. The majority of the respondents (44.76%) had an honours degree.

4.3.8 Respondent's working experience with cancer patients

The respondents were asked to indicate their working experience with cancer patients in the number of years. The mean working experience with cancer patients was 3.59 with a standard deviation of 4.718.

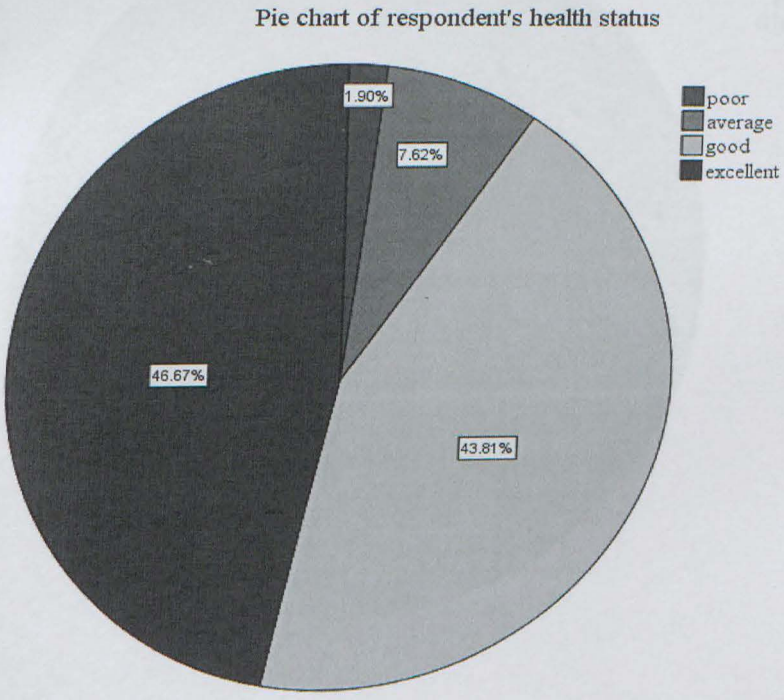
4.3.9 Respondent's working experience with prostate cancer patients

Respondents were further asked to indicate their working experience with prostate cancer patients in the number of years. The mean working experience with prostate cancer patients was 2.86 years with a standard deviation of 4.75.

4.3.10 Respondent's perceived health status

In this study, respondents were asked to self –rate their perceived health status utilising four categories. The categories were made general to enable easy self-appraisal as shown in Figure 4.3.

Figure 4.3: Respondents' perceived health status



Results in Figure 4.3 show that 46.67% perceived their health status to be excellent, 43.81 % perceived it to be good, 7.62% perceived it to be average and 1.90% perceived it to be poor.

4.3.11 Respondent's knowledge of prostate cancer

Respondents indicated their knowledge regarding prostate cancer under two options; adequate knowledge or inadequate knowledge of prostate cancer. Out of 105 respondents, 89 (84.8%) had adequate knowledge about prostate cancer while 16 (15.2%) had inadequate knowledge of prostate cancer.

4.3.12 Respondents passion for a nursing career

In this study, respondents were asked to indicate their level of passion regarding nursing as a career and the results are presented in Figure 4.4 below.

Figure 4.4: Respondents' passion for a nursing career

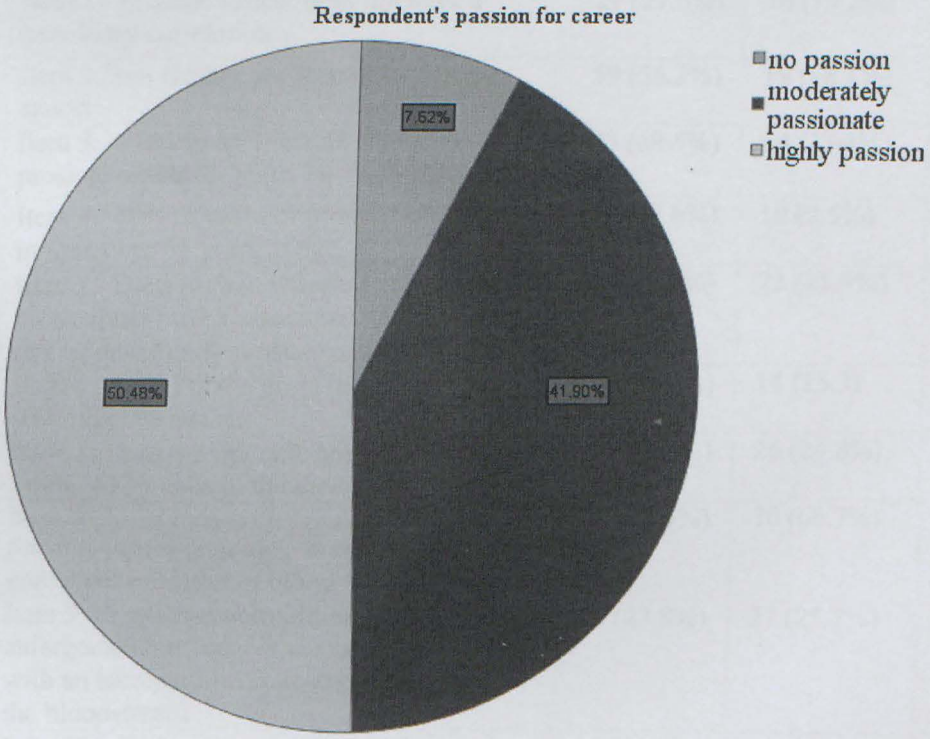


Figure 4.4 shows that 50.48% of the respondents were highly passionate, 41.90% were moderately passionate, while 7.62% had no passion for a nursing career.

4.4 Knowledge of nurses' regarding early detection, caring and support of men with prostate cancer at health facilities in Windhoek. (Objective 1)

4.4.1 Early detection

Respondents' knowledge on early detection was assessed through a set of statements on prostate cancer which they were asked to indicate their level of agreement on a 3 point Likert scale. Table 4.3 indicates the results.

Table 4.3: Respondents' knowledge on early detection of prostate cancer

Knowledge of early detection of prostate cancer	Agree	Neither Agree nor Disagree	Disagree
Item 1: Prostate cancer does not have a hereditary correlation	29 (27.6%)	16 (15.2%)	60 (57.1%)
Item 2: hot flushes are related to prostate cancer	59 (56.2%)	19 (18.1%)	27 (25.7%)
Item 3: a sedentary lifestyle is related to prostate cancer	73 (69.5%)	14 (13.3%)	18 (17.1%)
Item 4: 60% of cases of prostate cancer arise in men over 65 years of age	92 (87.6%)	10 (9.5%)	3 (2.9%)
Item 5: Diets high in red meat and fatty foods appear to be associated with a higher risk of developing prostate cancer	68 (64.8%)	23 (21.9%)	14 (13.3%)
Item 6: Blood in the urine has no association with prostate cancer	28 (26.7%)	14 (13.3)	63 60.0%)
Item 7: Prostate- specific antigen is a protein produced by cells in the prostate	74 (70.5%)	26 (24.8%)	5 (4.8%)
Item 8 : Most men with prostate cancer have a prostate- specific antigen level under 4 Nano grams per millilitre of blood	23 (21.9%)	70 (66.7%)	12 (11.4%)
Item 9: Prostate abnormalities, such as benign enlargement and cancer are rarely associated with an increased prostate-specific antigen in the bloodstream	25 (23.8%)	27 (25.7%)	53 (50.5%)
Item 10: Orchiectomy is a surgical procedure to treat/ prevent prostate cancer from spreading	84 (80.0%)	13 (12.4%)	8 (7.6%)
Item 11: Anaemia is a common side effect of chemotherapy prostate cancer treatment	90 (85.7%)	7 (6.7%)	8 (7.6%)

The results of the items in Table 4.3 are expanded below:

Item 1: Out of 105 respondents, 29 (27.6%) agreed that prostate cancer does not have a hereditary correlation, 16 (15.2%) neither agreed nor disagreed while 60 (57.1%) disagreed.

Item 2: Of the respondents, 59 (56.2%) agreed that hot flushes are related to prostate cancer, 19 (18.1%) neither agreed nor disagreed, while 27 (25.7%) disagreed.

Item 3: Out of 105 respondents 73 (69.5%) agreed that a sedentary lifestyle is related to prostate cancer, 19 (18.1%) neither or disagreed while 18 (17.1) disagreed.

Item 4: The majority of the respondents, 92 (87.6%), agreed that 60% of cases of prostate cancer arise in men over 65 years of age, 10 (9.5%) neither agreed nor disagreed, while 3 (2.9%) disagreed.

Item 5: Of the 105 respondents, 68 (64.8%) agreed that diets high in red meat and fatty foods appear to be associated with a higher risk of developing prostate cancer, 23 (21.9%) neither agreed nor disagreed, while 14 (13.3%) disagreed.

Item 6: Out of 105 respondents, 28 (26.7%) agreed that blood in the urine has no association with prostate cancer, 14 (13.3%) neither agreed nor disagreed, while 63 (60.0%) disagreed.

Item 7: Of the 105 respondents, 74 (70.5%) agreed that prostate-specific antigen is a protein produced by cells in the prostate, 26 (24.8%) neither agreed nor disagreed, while 5 (4.8%) disagreed.

Item 8: The table indicates that 23 (21.9%) of respondents agreed that most men with prostate cancer have a prostate-specific antigen level under 4 Nanograms per millilitre of blood, 70 (66.7%) either agreed or disagreed, while 12 (11.4%) disagreed.

Item 9: In this study 25 (23.8%) respondents agreed that Prostate abnormalities, such as benign enlargement and cancer are rarely associated with an increased prostate-specific antigen in the bloodstream, 27 (25.7%) neither agreed nor disagreed, while 53 (50.3%) disagreed.

Item 10: The majority of the respondents, 84 (80.0%), agreed that Orchiectomy is a surgical procedure to treat/ prevent prostate cancer from spreading, 13 (12.4%) neither agreed nor disagreed while 8 (7.6%) disagreed.

Item 11: Out of 105 respondents, 90 (85.7%) agreed that anaemia is a common side effect of chemotherapy prostate cancer treatment, 7 (6.7%) neither agreed nor disagreed, while 8 (7.6%) of the respondents disagreed.

4.4.2 Knowledge of caring and support

Respondent's knowledge of caring and support was assessed and they were asked to indicate on whether they agree, neither agree nor disagree or disagree on prostate cancer questions regarding knowledge on caring and support. The table 4-4 below indicates the results of knowledge on caring and support of man with prostate cancer.

Table 4.4: Respondents' knowledge of caring and support of man with prostate cancer

Knowledge of caring and support	Agree	Neither agree nor disagree	Disagree
Item 1: A patient presenting with sexual and erectile dysfunction does not require nursing care	5 (4.8%)	5 (4.8%)	95 (90.5%)
Item 2: Quality cancer care must integrate the psychosocial domain routine care	91 (86.7%)	10 (9.5%)	4 (3.8%)
Item 3: Emotional distress, needs close support and should be measured as the sixth vital sign of prostate cancer	91 (86.7%)	10 (9.5%)	4 (3.8%)
Item 4: Nurses are not responsible for referring patients with psychological issues to professionals	6 (5.7%)	9 (8.6%)	90 (85.7%)
Item 5: Nurses are not responsible for giving health education regarding prostate cancer to patients	5 (4.8%)	5 (4.8%)	95 90.5%)
Item 6: Men with prostate cancer require a one to one counselling with a nurse	67 (63.8%)	21 (20.0%)	17 (16.2%)

Item 7: Providing information and supporting men in making treatment decisions is not the role of the nurse	18 (17.1%)	12 (11.4%)	75 (71.4%)
Item 8: It is not the responsibility of nurses to assess patients for their side effects and offer formal assessment and treatment for troubling symptoms	14 (13.3%)	9 (8.6%)	82 (78.1%)
Item 9: Not only oncology and palliative care but primary care should also be considered in caring for prostate cancer patients	93 (88.6%)	5 (4.8%)	7 (6.7%)
Item 10: Empathy and thoughtfulness are very important in helping patients, family members and spouse of those affected cope with prostate cancer	99 (94.3%)	3 (2.9%)	3 (2.9%)

The results of the items in Table 4.4 are expanded below:

Item 1: Of the respondents, 5 (4.8%) agreed that a patient presenting with sexual and erectile dysfunction does not require nursing care, 5 (4.8%) neither agreed nor disagreed, while 95 (90.5%) disagreed.

Item 2: Of the 105 respondents, 91 (86.7%) agreed that quality cancer care must integrate the psychosocial domain in routine care, 10 (9.5%) neither agreed nor disagreed, while 4 (3.8%) disagreed.

Item 3: In this study 91 (87.6%) of the respondents agreed that emotional distress, needs close support and should be measured as the sixth vital sign of prostate cancer, 10 (9.5%) neither agreed nor disagreed while 4 (3.8%) disagreed.

Item 4: Out of 105 respondents, 6 (5.7%) of the respondents agreed that nurses are not responsible for referring patients with psychological issues to professionals, 9 (8.6%) neither agreed nor disagree while 90 (85.7%) disagreed.

Item 5: The results show that 5 (4.8%) of the respondents agreed that, nurses are not responsible for giving health education regarding prostate cancer to patients, 5 (4.8%) neither agreed nor disagreed while, 95 (90.5%) disagreed.

Item 6: In this study, 67 (63.8%) of the respondents agreed that men with prostate cancer require a one to one counselling with a nurse, 21 (20.0%) neither agree nor disagree while 17 (16.2%) disagree.

Item 7: Results show that 18 (17.1%) of the respondents agreed that providing information and supporting men in making treatment decisions is not a role of the nurse, 12 (11.4%) neither agree nor disagree while 75 (71.4%) disagreed.

Item 8:Out of 105 respondents, 14 (13.3%) agreed that it is not the responsibility of nurses to assess patients for their side effects and offer formal assessment and treatment for troubling symptoms, 9 (8.6%) neither agreed nor disagreed while 82 (78.1%) disagreed.

Item 9: Out of 105 respondent, 93 (88.6%) agreed that not only oncology and palliative care but primary care should also be considered in caring for prostate cancer patients, 5 (4.8%) neither agree nor disagreed while 7 (6.7%) disagreed.

Item 10: Out of 105 respondent, 99 (94.3%) agreed that empathy and thoughtfulness are very important in helping patients, family members and spouse of those affected cope with prostate cancer, 3 (2.9%) neither agreed nor disagreed while 3 (2.9%) disagreed.

4.5 Nurses' practices towards the provision of services regarding early detection, caring and support of men with prostate cancer at health facilities in Windhoek. (Objective 2)

Objective 2, was based on assessing nurses' practice towards the provision of services regarding early detection, caring and support of men with prostate cancer at health facilities in Windhoek. And the results are presented below:

4.5.1 Practice towards early detection of prostate cancer

Respondents' practice on early detection was assessed using several statements relating to practice. The results are shown in Table 4-5 below.

Table 4.5: Respondents' practice towards early detection of prostate cancer

Statement on practice regarding early detection of prostate cancer	Yes all the time	Sometimes	No at all
Item 1: Do you assess the risk factors of prostate cancer during history taking among men	72 (68.6%)	29 (27.6%)	4 (3.8%)
Item 2: Do u consider the patient's age during history taking	99 (94.3%)	6 (5.7%)	0 (0%)
Item 3: Do you ask about the duration of the patients complaints	103 (98.1%)	1 (1.0%)	1 (1.0%)
Item 4: Do you insert a gloved lubricated finger into the patient's rectum to assess the prostate size	13 (12.4%)	22 (21.0%)	70 (66.7%)
Item 5: Do you consider the patients family medical history during the early detection of prostate cancer	49 (46.7%)	22 (21.0%)	34 (32.4%)
Item 6: Do you carry out a physical examination to assess the suprapubic area for signs of bladder distention in men	51 (48.6%)	43 (41.0%)	11 (10.5%)
Item 7: Do you initiate procedures for cancer diagnosis immediately after history taking	44 (41.9%)	14 (13.3%)	47 (44.8%)
Item 8: Do you order tests to confirm prostate cancer form suspected of prostate cancer	36 (34.3%)	5 (4.8%)	64 (61.0%)
Item 9: Do you review test results for patients suspected of prostate cancer	32 (30.5%)	9 (8.6%)	64 (61.0%)
Item 10: Do you interpret test results for prostate cancer patients	23 (21.9%)	9 (8.6%)	73 (69.5%)

The results of the items in Table 4.5 are expanded below:

Item 1: On whether the respondents assess the risk factors of prostate cancer during history taking among men, 72 (68.6%) answered yes all the time, 29 (27.6%) answered sometimes and 4 (3.8%) indicated no at all.

Item 2: Regarding whether they consider the patient's age during history taking99 (94.3%) respondents answered yes all the time, 6 (5.7%) answered sometimes while none of the participants answered no at all 0 (0%).

Item 3: On whether they ask about the duration of the patients' complaints, 103 (98.1%) answered yes all the time, 1 (1.0%) answered sometimes while 1 (1.0%) indicated no at all.

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Item 4: On whether respondents insert a gloved lubricated finger into the patient's rectum to assess the prostate size, 13 (12.4%) answered yes all the time, 22 (21.0%) replied sometimes while 70 (66.7%) indicated no at all.

Item 5: The majority of the respondents 49(46.7%) answered yes all the time on whether they consider the patients family medical history during early detection of prostate cancer, 22 (21.0%) answered sometimes while 34 (32.4%) indicated no at all.

Item 6: Regarding whether they carry out a physical examination to assess the suprapubic area for signs of bladder distention in men, 51 (48.6%) of the respondents answered yes all the time, 43 (41.0%) answered sometimes while 11 (10.5%) indicated no at all.

Item 7: On whether respondents initiate procedures for cancer diagnosis immediately after history taking, 44 (41.9%) answered yes all the time, 14 (13.3%) answered sometimes while 47 (44.8%) answered no at all.

Item 8: Concerning whether respondents order tests to confirm prostate cancer for patients suspected of prostate cancer, 36 (34.3%) answered yes all the time, 5 (4.8%) answered sometimes while 64 (61.0%) indicated no at all.

Item 9: On whether they review test results for patients suspected of prostate cancer, 32 (30.5%) respondents answered yes all the time, 9 (8.6%) answered sometimes while 64 (61.0%) indicated no at all.

Item 10: Of the respondents, 23 (21.9%) answered yes all the time on whether they interpret test results for prostate cancer patients, 9 (8.6%) answered sometimes while the majority of the respondents 73 (69.5%) answered no at all.

4.5.2 Practice regarding caring and support of men with prostate cancer

Respondents' practice on caring and support of men with prostate cancer was assessed using several statements. Table 4.6 below show the results.

Table 4.6: Respondents' practice regarding caring and support of men with prostate cancer

Statements on practice on caring and support	Yes all the time	Sometimes	No at all
Item 1: Do you as a nurse offer psychological, emotional, social and spiritual support to patients with prostate cancer and their family members too?	84 (80.0%)	14 (13.3%)	7 (6.7%)
Item 2: Do you advise patients with prostate cancer or those coming for screening with urology-related problems	87 (82.9%)	14 (13.3%)	4 (3.8%)
Item 3: Do you care for the spouse of an affected patient with prostate cancer	48 (45.7%)	27 (25.7%)	30 (28.6%)
Item 4: Do you discuss sexually-related matters with patients undergoing cancer treatment for prostate cancer	79 (75.2%)	18 (17.1%)	8 (7.6%)
Item 5: Do you allow prostate cancer patients to interact with one another	62 (59.0%)	27 (25.7%)	16 (15.2%)
Item 6: Do you counsel patients diagnosed with prostate cancer	67 (63.8%)	20 (19.0%)	18 (17.1%)
Item 7: Do you offer palliative care to men with prostate cancer	66 (62.9%)	15 (14.3%)	24 (22.9%)
Item 8: Do you have special groups that assess and provides specific care to men with prostate cancer	26 (24.8%)	12 (11.4%)	67 (63.8%)
Item 9: Do you advise patients diagnosed with prostate cancer about treatment options as a nurse	64 (61.0%)	29 (27.6%)	12 (11.4%)
Item 10: Do you comfort patients with prostate cancer during treatment or after treatment	83 (79.0%)	17 (16.2%)	5 (4.8%)

The results of the items in Table 4.6 are expanded below:

Item 1: On whether they offer psychological, emotional, social and spiritual support to patients with prostate cancer and their family members too, the majority of the respondents 84 (80.0%) answered yes all the time, 14 (13.3%) answered sometimes while 7 (6.7%) indicated no at all.

Item 2: Respondents were asked whether they advise patients with prostate cancer or those coming for screening with urology-related problems, 87 (82.9%) responded yes all the time, 14 (13.3%) answered sometimes and 4 (3.8%) indicated no at all.

Item 3: Respondents were assessed on whether they care for the spouse of the affected patient with prostate cancer, 48 (45.7%) answered yes all the time, 27 (25.7%) indicated sometimes while 30 (28.6%) indicated no at all.

Item 4: On whether they discuss sexually-related matters with patients undergoing cancer treatment for prostate cancer, the majority of the respondents 79 (75.2%) answered yes all the time, 18 (17.1%) answered sometimes while 8 (7.6%) indicated no at all.

Item 5: Regarding whether they allow prostate cancer patients to interact with one another, 62 (59.0%) of the respondents answered yes all the time, 27 (25.7%) sometimes while 16 (15.2%) answered no at all.

Item 6: On whether they counsel patients diagnosed with prostate cancer, 67 (63.8%) of the respondents answered yes all the time, 20 (19.0%) answered sometimes while 18 (17.1%) responded no at all.

Item 7: The majority of the respondents 66 (62.9%) answered yes all the time when they were asked whether they offer palliative care to men with prostate cancer, 15 (14.3%) answered sometimes while 24 (22.9%) indicated no at all.

Item 8: Of the respondents, 26 (24.8%) answered yes all the time on whether they have special groups that assess and provide specific care to men with prostate cancer, 12 (11.4%) answered sometimes and 67 (63.8%) indicated no at all.

Item 9: Of the respondents, 64 (61.0%) answered yes all the time on whether they advise patients diagnosed with prostate cancer about treatment options as a nurse, 29 (27.6%) answered sometimes while 12 (11.4%) indicated no at all.

Item 10: The majority of the respondents 83 (79.0%) answered yes all the time on whether they comfort patients with prostate cancer during treatment or after treatment, 17 (16.2%) answered sometimes while 5 (4.8%) answered no at all.

4.6 Nurses' attitude on early detection, caring, and support of men with prostate cancer at health facilities in Windhoek. (Objective 3)

This section presents the results on the nurses' attitude on early detection, caring, and support of men with prostate cancer at health facilities in Windhoek. Interviews were conducted using in-depth face- to- face individual interview with probing questions to allow participants to explain more on the phenomena The participants' ages ranged between 20 and 40 years old, with the majority of the participants between 25 and 30 years. All participants were black and Namibian citizens from Windhoek central hospital (80%) and Katutura health centre (20%). Most of the participants were females (90%) with a few (10%) males. The majority of participants (60%) had honours degrees whilst three (30%) had certificates and 1 (10%) had a master's degree in nursing science. Seven participants (70%) were registered nurses and 3 (30%) were enrolled nurses.

Main themes and sub-themes

The main research question for objective 3 was "*What is the attitude of nurses towards early detection, caring and support of men with prostate cancer*"? Three (3) themes and six (6) subthemes were identified and are presented in Table 4.7 below.

Table 4.7: Themes and sub-themes

Themes	Subthemes
4.7.1 Positive attitude towards early detection	4.7.1.1 Improve prostate cancer prognosis 4.7.1.2 Reduce the burden of prostate cancer
4.7.2 Negative attitude towards caring	4.7.2.1 Shortage of staff 4.7.2.2 Lack of specialised training
4.7.3 Negative attitude towards support	4.7.3.1 Cultural values 4.7.3.2 Stigmatization of nurses

4.6.1 Theme 1: Positive attitude towards early detection

According to Sasson (2018), a positive attitude is a mental outlook of optimism and of expecting good things to happen. It is a state of mind that envisions and expects favourable results, it helps you see the good in people and keeps one feeling motivated to keep informed and have screening tests. Positive attitude in the workplace is beneficial to nurses (Lyubomirsky, King, & Diener, 2005). Nurses need to have positive attitudes towards patients and patient care if good quality health care is to be provided (Chokwe & Wright, 2012). In this study, participants spoke of necessity and benefits of screening tests done for early detection of prostate cancer which is a reflection of positive attitudes. These included possible improvement of treatment of prostate cancer and reduced burden of prostate cancer.

4.6.1.1 Subtheme 1: Improved prostate cancer prognosis

Treatment refers to the management and care of a patient to combat disease or disorder (Lea & Bradbery, 2020). Many nurses from all categories mentioned that early detection improves the treatment of prostate cancer which is a reflection of a positive attitude towards early detection.

According to one participant; *"Early detection increases chances for successful treatment by focusing on detecting symptomatic patients as easy as possible". [P1]*

Another participant mentioned that; *"Early detection opens the door to future care and treatment, it helps these men to plan ahead while they are still able to make important decisions on their care and support needs. It also makes it easier for nurses and doctors to treat cancer early without stressing in the final stages".* [P2]

Descotes (2019) stated that early detection is important as it allows nurses and doctors to treat cancer early when it is relatively easier to treat. Early detection of prostate cancer allows nurses and doctors to advise men on treatment options and future health risks.

4.6.1.2 Subtheme 2: The reduced burden of prostate cancer disease

Disease burden is defined as the loss of health and death due to a disease, injuries and risk factors for all the regions of the world (World Health Organization, 2017). Disease burden can also be thought of as a measure of the gap between the ideal and current health status (Smith-Palmer, Takizawa, & Valentine, 2019). In this study, participants emphasized that early detection reduces the disease burden of prostate cancer which reflected a good attitude towards early detection.

The statement below was reinforced by a participant:

" Early detection greatly reduces cancers financial impact not only is the cost of treatment much less in cancer's early stages but it also has a great impact on the reduction of mortality rate due to prostate cancer, people can also continue to work and support their families if they can access effective treatment in time". [P4]

Another participant added that; *"..., burden to family members is reduced it allows family members to get information early about the disease process, and a chance to seek for psychological care...* [P3]

4.6.2 Theme 2: Negative attitude towards caring

A negative attitude is a temperament attitude or approach that is not constructive, cooperative or optimistic (McIntosh, 2013). Nurse's attitude affect behaviour, quality care and health outcomes for patients. Caring is a display of kindness and concern for others. Some of the participants could not carry out some of the caring procedures because of staff shortages and a lack of specialised training and knowledge which reflects a negative attitude towards caring for prostate cancer patients.

4.6.2.1 Subtheme 2.1: Shortage of staff

Nursing shortage refers to a situation where the demand for nursing professionals, such as registered nurses exceeds the supply locally, (e.g. within a health care facility) nationally or globally. It can be measured by the nurse- to- patient ratio or the nurse-to population ratio or the number of job openings that necessitates a higher number of nurses than currently available (Goulette, 2010). According to WHO (2017), the nursing shortage has an impact on healthcare and hinders quality nursing care; increased patient workload, increased risk to occupational injury and increased risk of spreading of infection to patients and staff. Most nurses interviewed complained of staff shortages accompanied by the increased workload.

One of the participants said; *"The staff shortage is one of my dislikes in this profession; there are a lot of shortages in the ward. You can end up overworking yourself..."* She continued that: *"...now because there is a shortage of nurses they will not deliver the quality care they might not even do half of what they are supposed to do because of hmm!! Shortage".* [P5]

A different participant added that: *"Due to shortage of stuff and then a lot of work in the hospital sometimes we don't meet the patient's requirements as they need, we don't give them enough care ..."* [P7]

Nurses have a duty of care and the inability of nurses to care can result to patients feeling devalued, lacking in emotional support and pose a negative attitude towards prostate cancer (De Paiva et al., 2010). The number of healthcare providers e.g. nurses affects the quality of healthcare services.

4.6.2.2 Subtheme 2.2: Lack of specialised training

Specialised training is programs that allow you to implement your knowledge and skills in a specific area (Dornan, 2011). Knowledge has to do with all of the facts that someone knows about a particular subject (Mogotlane et al., 2018). Some of the participants claimed that they lack continuous training and knowledge regarding prostate cancer nursing. The nurses' reported that they do not have specialised training to take care of prostate cancer patients. Their knowledge about prostate cancer nursing is just based only on their general studies. The participants believed that they need up-to-date training courses and workshops to give them confidence in dealing with patients with prostate cancer.

One of the participants mentioned that: *"I did not train to take care of oncology patients, all what I do is based on the head nurse direction and doctor's direction"*. [P3]

Another participant also added that: "... *we lack the necessary knowledge, this puts strains on the nurses and it makes us feel bad about caring for our patients ....".* [P4]

Dickens, Lamont, and Gray, (2016) reported that nurses must be involved in designing, implementing, and teaching a comprehensive therapeutic perspective to boost confidence at work and patient care. Nursing training enables nurses to acquire knowledge, skills, and

attitudes for providing nursing care. Training and development enhance the ability of nurses to be knowledge-intensive and allows nurses to take up job tasks efficiently.

4.6.3 Theme 3: Negative attitude towards support

Nurses play an invaluable role in providing support to patients and their families. Nurses have a duty of care and support; the inability of nurses to support patients can result in patients feeling devalued and lacking in emotional support. In this study, participants expressed a negative attitude towards the support of men with prostate cancer as a result of cultural values and stigmatization of nurses.

4.6.3.1 Subtheme 3.1: Cultural value

Cultural value refers to norms and ways of behaviour conditioning attitudes and reactions to events and various phenomena in the context of a culture. Cultural values are a set of values and generic beliefs that individuals naturally learn through education and socialization. Cultural values are such as sacrifice, telling the truth, respect for elders, and kindness to the young, generosity and tolerance. In this study, participants spoke about how cultural values negatively affected their ability to support men with prostate cancer.

One of the participants mentioned that: "*... in my culture and also as a young nurse it is not easy to have discussions about sex with an elderly man of about 70 years old it is a taboo because growing up nor do elders themselves even talk to us about sex*". [P3]

Another participant added that: "*Sometimes when providing health education to a group of these elderly men it is not easy for me as a nurse to mention certain words I get so shy to talk of words like 'penis' or 'vagina' I just can't address an adult who is almost my father's age or even elder than my father in such a manner we end up omitting information*". [P4]

It is evident that nurses allow cultural values to have an impact on their ability to support men with prostate cancer. Culture, beliefs and ethnic customs can influence how the nurses' understand health concepts and how they offer holistic care to patients. Leininger (2002) proposed that nurses' practice must incorporate cultural needs and beliefs into their nursing practice to provide care that is individualized for the client and appropriate to the client's needs.

4.6.3.2 Subtheme 3.2: Stigmatization towards nurses

Stigma is a powerful social process that is characterized by labelling, stereotyping, and separation, leading to status loss and discrimination (Chidyaonga-Maseko, Chirwa, & Muula, 2015). Stigma is regarded to have a negative impact on an individual's health. Stigma affects nurses either because of their health status or as a result of working with stigmatized individuals. In this study participants experienced stigma which reflected in them having a negative attitude towards the support of men with prostate cancer.

One of the participants mentioned that; *"When I told my husband that I am working with prostate cancer patients he was very upset and asked me to leave my work because I will bring cancer home I felt so bad and anxious I now find it difficult to support my patients at work I always think about what he said".* [P9]

Another participant mentioned that; *"I don't feel confident enough to claim that I am working with patients with prostate cancer in the oncology ward. My family and friends are always afraid of being with me because they have negative views towards prostate cancer".* [P9]

Stigma in health facilities undermines treatment and successful health outcomes. Reducing stigma has the potential to improve the health workplace environment, the quality of care provided by staff, the clinical outcomes of individuals living with stigmatized health conditions, and the social risks taken when accessing healthcare for particular conditions. Stigmatization of nurses can lead nurses to stigmatize patients as well, hence special

consideration should be provided to nursing education and on the job training to prevent nurses from developing stigmatized attitudes towards patients as well.

4.7 Overall level of knowledge and practice on early detection caring and support of men with prostate cancer at health facilities in Windhoek.

4.7.1 Level of knowledge on early detection of prostate cancer

All statements under knowledge regarding early detection were scored and summed up before being categorised into a low, average and good level. The results are shown in Table 4.8

Table 4.8: Level of knowledge on early detection of prostate cancer

Level of knowledge on early detection				
	Frequency	Percent	Valid Percent	Cumulative Percent
Low level of knowledge	66	62.9	62.9	62.9
Average level of knowledge	39	37.1	37.1	100.0
Total	105	100.0	100.0	

The table above shows that 66 (62.9%) of the respondents had a low level of knowledge on early detection of prostate cancer, while 39 (37.1%), had an average level of knowledge.

4.7.2 Level of knowledge on caring and support of men with prostate cancer.

All statements under knowledge regarding caring and support were scored and summed up before being categorised into a low, average and good level. The results are in Table 4.9

Table 4.9: Level of knowledge on caring and support of men with prostate cancer

Level of knowledge caring and support				
	Frequency	Percent	Valid Percent	Cumulative Percent
Low level of knowledge	94	89.5	89.5	89.5
Average level of knowledge	11	10.5	10.5	100.0
Total	105	100.0	100.0	

The results in Table 4.9 above showed that 94 (89.5%) respondents had a low level of knowledge regarding caring and support of men with prostate cancer at health facilities in Windhoek, while 11 (10.5%) of the participants had an average level of knowledge.

4.7.3 Overall level of knowledge on early detection caring and support of men with prostate cancer

All statements under knowledge regarding early detection, caring and support were scored and summed up before being categorised into a low, average and good level. The results are shown in Table 4.10

Table 4.10: Overall level of knowledge regarding early detection, caring and support

The overall level of knowledge				
	Frequency	Percent	Valid Percent	Cumulative Percent
Low level of knowledge	86	81.9	81.9	81.9
Average level of knowledge	19	18.1	18.1	100.0
Total	105	100.0	100.0	

The results in Table 4.10 above indicated that most of the respondents had a low level of knowledge 86 (81.9%), while 19 (18.1%) had an average level of knowledge regarding early detection, caring and support of men with prostate cancer.

4.7.4 Level of practice on early detection.

All statements under practice regarding early detection were scored and summed up before being categorised into poor, average and good practice. The results are shown in Table 4.11.

Table 4.11: Level of practice towards early detection of prostate cancer

Level of Practice on early detection				
	Frequency	Percent	Valid Percent	Cumulative Percent
Good practice	32	30.5	30.5	30.5
Average practice	71	67.6	67.6	98.1
Poor practice	2	1.9	1.9	100.0
Total	105	100.0	100.0	

The results in Table 4.11 show that 32 (30.5%) of the respondents had a good practice, 71 (67.6%) had average practices while 2 (1.9%) of the respondents had poor practices regarding early detection of men with prostate cancer at health facilities in Windhoek.

4.7.5 Level of practice regarding caring and support

All statements under practice regarding caring and support were scored and summed up before being categorised into poor, average and good practice. The results are shown in Table 4.12

Table 4.12: Level of practice towards caring and support of men with prostate cancer

Level of Practice caring and support				
	Frequency	Percent	Valid Percent	Cumulative Percent
Good practice	77	73.3	73.3	73.3
Average practice	28	26.7	26.7	100.0
Total	105	100.0	100.0	

Table 4.12 indicated that 77 (73.3%) of the respondents had good practice while 28 (26.7%) had average practice regarding caring and support of men with prostate cancer at health facilities in Windhoek.

4.7.6 Overall level of practice regarding early detection, caring and support of men with prostate cancer

All statements under practice regarding early detection, caring and support were scored and summed up before being categorised into poor, average and good practice. The results are shown in Table 4.13.

Table 4.13: Overall level of practice regarding early detection of caring and support

The overall level of practice				
	Frequency	Percent	Valid Percent	Cumulative Percent
Good practice	54	51.4	51.4	51.4
Average practice	47	44.8	44.8	96.2
Poor practice	4	3.8	3.8	100.0
Total	105	100.0	100.0	

Table 4.13 above indicated that 54 (51.4%) of the respondents had a good practice, 47 (44.8%), had average practices and 4 (3.8%) had poor practices regarding early detection, caring and support of men with prostate cancer.

4.8 Association between the variables with regards to early detection, caring and support. (Objective 4)

The association between demographic characteristics, the overall level of knowledge and overall level of practice is presented below.

4.8.1 Association of knowledge and demographic characteristics

Cross tabulation and the chi-squared test was used to derive the association between participant's overall level of knowledge and demographic characteristics. Table 4.14 indicates the results.

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Table 4.14: Association between the overall level of knowledge and demographic characteristics

Participants' characteristics		The overall level of knowledge			p-value
		Low	Average	High	
Gender	Male	33 (91.7%)	3 (8.3%)	0 (0.0%)	0.950
	Female	63 (91.3%)	6 (8.7%)	0 (0.0%)	
Qualification	Certificate	28 (90.3%)	3 (9.7%)	0 (0.0%)	0.763
	Diploma	24 (96.0%)	1 (4.0%)	0 (0.0%)	
	Honours degree	42 (89.4%)	5 (10.6%)	0 (0.0%)	
	Other	2 (100.0%)	0 (0.0%)	0 (0.0%)	
Health facility	Otjomuise	12 (100.0%)	0 (0.0%)	0 (0.0%)	0.086
	Khomasdal	12 (100.0%)	0 (0.0%)	0 (0.0%)	
	Wanaheda clinic	12 (100.0%)	0 (0.0%)	0 (0.0%)	
	Okuryangava clinic	6 (66.7%)	3 (33.3%)	0 (0.0%)	
	Hakahana clinic	7 (87.5%)	1 (12.5%)	0 (0.0%)	
	Donkerhoek clinic	7 (87.5%)	1 (12.5%)	0 (0.0%)	
	Robert Mugabe clinic	7 (77.8%)	2 (22.2%)	0 (0.0%)	
	Katutura health centre	5 (83.3%)	1 (16.7%)	0 (0.0%)	
	Windhoek central hospital	19 (100.0%)	0 (0.0%)	0 (0.0%)	
	Katutura state hospital	9 (90.0%)	1 (10.0%)	0 (0.0%)	
Race	White	4 (100.0%)	0 (0.0%)	0 (0.0%)	0.666
	Black	88 (90.7%)	9 (9.3%)	0 (0.0%)	
	Other	4 (100.0%)	0 (0.0%)	0 (0.0%)	
Health status	Poor	2 (100.0%)	0 (0.0%)	0 (0.0%)	0.949
	Average	7 (87.5%)	1 (12.5%)	0 (0.0%)	
	Good	42 (91.3%)	4 (8.7%)	0 (0.0%)	
	Excellent	45 (91.8%)	4 (8.2%)	0 (0.0%)	
Nationality	Namibian	82 (91.1%)	8 (8.9%)	0 (0.0%)	0.723
	Zimbabwean	8 (88.9%)	1 (11.1%)	0 (0.0%)	
	Other	6 (100.0%)	0 (0.0%)	0 (0.0%)	
Religion	Christian	92 (91.1%)	9 (8.9%)	0 (0.0%)	0.532
	Other	4 (100.0%)	0 (0.0%)	0 (0.0%)	
Knowledge of prostate cancer	Adequate Knowledge	83 (93.3%)	6 (6.7%)	0 (0.0%)	0.114
	Inadequate knowledge	13 (81.2%)	3 (18.8%)	0 (0.0%)	
Passion for career	No passion	6 (75.0%)	2 (25.0%)	0 (0.0%)	0.093
	Moderate Passion	39 (88.6%)	5 (11.4%)	0 (0.0%)	
	High passion	51 (96.2%)	2 (3.8%)	0 (0.0%)	

Using Chi-square test, Table 4.14 shows that there is no significant association between overall level of knowledge gender (p=0.950), qualification (p=0.763), health facility (p=0.086), race (p=0.666), health status (p=0.949), nationality (p=0.723), religion (p=0.532), knowledge of prostate cancer (p=0.114), passion for career (p=0.093).

4.8.2 Association of practice and demographic characteristics

Cross tabulation and the chi-squared test was used to derive the association between participant's overall level of practice and demographic characteristics. Table 4.19 indicates the results.

Table 4.15: Association between the overall level of practice and demographic characteristics

Participants' characteristics		The overall level of practice			p-value
		Good	Average	Poor	
Gender	Male	18 (50.0%)	16 (44.4%)	2 (5.6%)	0.794
	Female	36 (52.2%)	31 (44.9%)	2 (2.9%)	
Qualification	Certificate	17 (54.8%)	11 (35.5%)	3 (9.7%)	0.172
	Diploma	15 (60.0%)	10 (40.0%)	0 (0.0%)	
	Honours degree	20 (42.6%)	26 (55.3%)	1 (2.1%)	
	Other	2 (100.0%)	0 (0.0%)	0 (0.0%)	
Health facility	Otjomuise	3 (25.0%)	8 (66.7%)	1 (8.1%)	0.003
	Khomasdal	4 (33.3%)	8 (66.7%)	0 (0.0%)	
	Wanaheda	5 (41.7%)	7 (58.3%)	0 (0.0%)	
	Okuryangava clinic	5 (55.5%)	4 (44.4%)	0 (0.0%)	
	Hakahana clinic	2 (25.0%)	4 (50.0%)	2 (25.0%)	
	Donkerhoek clinic	4 (50.0%)	3 (37.5%)	1 (12.5%)	
	Robert Mugabe clinic	3 (33.3%)	6 (66.7%)	0 (0.0%)	
	Katutura Health Centre	5 (83.3%)	1 (16.7%)	0 (0.0%)	
	Windhoek Central Hospital	18 (94.7%)	1 (5.3%)	0 (0.0%)	
	Katutura State hospital	5 (50.0%)	5 (50.0)	0 (0.0%)	
Race	White	1 (25.0%	3 (75.0%)	0 (0.0%)	0.133
	Black	52 (53.6%)	42 (43.3%)	3 (31.1%)	
	Other	1 (25.0%)	2 (50.0%)	1 (25.0%)	
Health status	Poor	2 (100.0%)	0 (0.0%)	0 (0.0%)	0.039

	Average	8 (100.0%)	0 (0.0%)	0 (0.0%)	
	Good	25 (54.3%)	20 (43.5%)	1 (2.2%)	
	Excellent	19 (38.8%)	27 (55.1%)	3 (6.1%)	
Nationality	Namibian	47 (52.2%)	39 (43.3%)	4 (4.4%)	0.777
	Zimbabwean	5 (55.6%)	4 (44.4%)	0 (0.0%)	
	Other	2 (33.3%)	4 (66.7%)	0 (0.0%)	
Religion	Christian	53 (52.5%)	45 (44.6%)	3 (3.0%)	0.064
	Other	1 (25.0%)	2 (50.0%)	1 (25.0%)	
Knowledge of prostate cancer	Some knowledge	46 (51.7%)	39 (43.8%)	4 (4.5%)	0.656
	No knowledge	8 (50.0%)	8 (50.0%)	0 (0.0%)	
Passion for career	No passion	5 (62.5%)	3 (37.5%)	0 (0.0%)	0.937
	Moderately passion	23 (52.3%)	19 (43.2%)	2 (4.5%)	
	Highly passionate	26 (49.1)	47 (44.8%)	4 (3.8%)	

Using Chi-square test, Table 4.15 shows that overall level of practice was not significantly associated gender (p=0.794), participants highest qualification (p=0.172), race (p= 0.133), nationality (p= 0.777), religion (p=0.064), participants knowledge of prostate cancer (p= 0.656), passion for career (p= 0. 397). However, there was significant association between overall level of practice and health facility (p=0.003) as well as perceived health status (p= 0.039).

4.8.3 Association between the overall level of Knowledge and overall level of practice

Table 4.16 shows the association of the participant's overall level of knowledge and overall level of practice.

Table 4.16: Association between the overall level of Knowledge and overall level of practice

		The overall level of practice			p-value
		Good	**Average**	**Poor**	
The overall level of Knowledge	Low level of knowledge	50 (52.1%)	42 (43.8%)	4 (4.2%)	0.696
	Average level of knowledge	4 (44.4%)	5 (55.6%)	0 (0.0%)	

As seen in Table 4.16 above, 50 (52.1%) of the respondents with a low level of knowledge had good practices, 42 (43.8%) of the respondents with a low level of knowledge had average practices while 4 (4.2%) of the respondents with a low level of knowledge had poor practices. Of those with an average level of knowledge, the table indicated that 4 (44.4%) of the respondents had good practices, most of the respondents 5 (55.6%) had average practices and none of the respondents had poor practices. However, the association between the overall level of knowledge and overall level of practice was not statistically significant (p=0.696).

4.9 SUMMARY OF CHAPTER 4

This chapter presented the results of the study. Quantitative results for objective one (1) and objective two (2) were presented using tables and graphs. Univariate and multivariate analysis were presented using frequencies and percentages. Qualitative results for objective three (3) were presented based on three (3) themes and six (6) subthemes. Overall scores of knowledge and practice on early detection caring and support as well as the association between variables with regards to early detection caring and support were also presented.

CHAPTER 5

DISCUSSION, CONCLUSION, RECOMMENDATION AND LIMITATION

5.1 INTRODUCTION

The previous chapter focused on the presentation of results, overview of data collection and analysis as well as the discussion of themes and subthemes. This chapter will focus on discussion, conclusion, limitation as well as recommendations based on the study's findings.

5.2 DISCUSSION

Discussion of the results will be done with the integration of previous literature to show similarities and differences with other studies in different contexts. The study aimed to determine, explore and assess the knowledge, attitude and practices of nurses regarding early detection, caring and support of men with prostate cancer at health facilities in Windhoek using a mixed-method study.

5.2.1 Demographic characteristics of nurses

The response rate in this study was 78% (n=105) of the calculated sample size of 134. A response above 50% is sufficient to obtain both a meaningful statistical analysis and acceptable results. Some of the respondents did not consent to participate in the study and their decision was respected. Mean age of the respondents was 34.21 years (Std. Deviation= 8.999), with 36 (34.3%) males and 69 (65.7%) females. The study had more female than male respondents. According to Nursing times (Bagnall, 2014), the nursing profession is believed to be a feminine profession suitable and ideal for females. Females are considered more nurturing and more able to understand and share the feelings of another, while male nurses are pictured as less emotional. Cultural gender differences also play a major role as females are expected to be

more sensitive and compassionate to others compared to male. An impulse that suppresses empathy exists and is more significant in males compared to females, hence men appear less empathetic (Moore, O'Sullivan, & Tannock, 1988). Nursing requires an amount of kindness and sensitivity which has been seen as a female attribute thus most men perceive nursing as a female occupation. Stigmatization from the general public and a lack of knowledge of nurses' job description can also discourage young men to study nursing.

Most of the respondents were of black ethnic background. Ethnic groups in Namibia are composed of; (87.5%) black African and 6.0% whites and 6.5% represent a mixed ethnic group, hence the majority of the study respondents being black. In addition, the first school of nursing was established in Onandjokwe, Onandjokwe is located East of Oniipa settlement in Ondonga kingdom in Northern Namibia. In 1930 nurses began their first formal training at Onandjokwe hospital. The establishment of the first nursing school advocates for the majority of nurses in Namibia being black and Ovambo speaking.

Regarding respondent's highest qualification, most of the respondents were honours degree holders. These results are in line with a study conducted by Ortega et al. (2015), which analysed the highest level of qualifications of their respondents and it was discovered that 62% of the respondents were honours degree holders. In order, for one to become a registered nurse they need a diploma or degree in nursing. Most of the nursing training institutions in Namibia are now training nurses at degree hence most graduates are degree holders.

A difference existed between the respondents' years of experience with cancer patients, mean =3.59 (SD = 4.718) and experience working with prostate cancer patients mean =2.86 (SD= 4.750). The oncology departments and primary health care facilities do not only care for prostate cancer patients but they also care for other cancers like oesophageal cancer, mouth and colon cancer. Some nurses are exposed to caring and supporting other type cancers before

prostate cancer patients hence the difference in years of experience with cancer and prostate cancer patients. Most of the respondents perceived their health status as excellent. Nurses with excellent health status keep a positive and healthy workforce in the department as excellent health status of nurses reduce absenteeism and boost overall productivity. Excellent health status improves the support and care provided to patients (Kieft, De Brouwer, Francke, & Delnoij, 2014). Poor health status of nurses in a hospital causes stress and fatigue amongst them, which will increase the risk of injuries. Regarding perceived knowledge on prostate cancer, the majority indicated they had adequate knowledge which allows nurses to have a firm basis for actions taken in the hospital setting. Good nursing knowledge informs care from both theoretical and practical perspectives thereby improving nursing practice and patient safety by preventing errors (Feringa, De Swardt, & Havenga, 2018).

Most of the respondents were Christian in line with Namibia's religious profile where 80% to 90% of the population are Christians. In addition, the fastest growth in the number of Christians over the past century has been in sub-Saharan Africa, with five of the top 10 Christian countries in Arica (Nolte, Jones, Taiyari, & Occhiali, 2016). Christian values among nurses may positively affect care. These values allow the fostering of a healing environment and they permit nurses to know their patients as unique individuals and hear the patient's immediate concerns. The Christian values allow for the practice of spiritual nursing which helps the patients in making meaning out of their experience and find hope (Hinton & Hinton, 2014). The majority of the respondents were highly passionate about nursing which reflects a desire to make a positive impact on the lives of patients by providing comfort and care. Nurses who are passionate about nursing are motivated, have good communication skills, have the courage to advocate for their patients, speak out when things are going wrong and they spend time and energy taking care of patients. If nurses are not passionate about their job they will be unable

to offer quality nursing care to patients (Gómez-Salgado, Navarro-Abal, López-López, Romero-Martín, & Climent-Rodríguez, 2019).

5.2.2 Nurses knowledge regarding early detection, caring and support of men with prostate cancer at health facilities in Windhoek.

The majority of respondents' had an overall low level of knowledge regarding early detection, caring and support of men with prostate cancer. These results are similar to a study conducted in Ethiopia where respondents knew of cancer generally but could not identify prostate cancer (Getahun, Mazengia, Abuhay, & Birhanu, 2013). Low level of knowledge amongst nurses can be due to insufficient training and inadequate experience and can present a barrier towards effective pain management. Nurses need to have sufficient information and necessary skills in the field of patient care. Low self-esteem and isolation are factors associated with a low level of knowledge, this may lead to decisions that do not consider the effect of relevant factors. Lack of knowledge is an apparent barrier in using the guidelines in clinical practices which can increase the morbidity and mortality of patients (Xie et al., 2020). Carayon (2012) stated that a lack of relevant knowledge at the workplace affects the efficiency and effectiveness of service delivery at facilities. When nurses have a low level of knowledge they worry so much about patients and it becomes overwhelming. Nurses may feel upset, guilty and terrified about being less knowledgeable, they experience loss of confidence, in their clinical practice which hinders quality care to patients.

5.2.3 Nurse's practices towards the provision of services regarding early detection, caring and support of men with prostate cancer at health facilities in Windhoek.

Overall, majority of the respondents showed good practices towards early detection, caring and support of men with prostate cancer. Separately, the respondents' practice was average and good for early detection and caring and support respectively. Similarly, another study

conducted in Kenya showed that with 73% of the nurses had a good level of practice towards caring for patients with prostate cancer. Best practices are extremely important for excellence in health care as they improve diagnosis and early detection. Good nursing practices include treating patients with compassion, courtesy and dignity as well as giving patients the time and attention they need. Nurses' empowerment is a good practice to achieve greater effectiveness and job satisfaction in their work environment and relationships. Nurses become more engaged with their work, and communication is enhanced (Madden, 2007). Good nursing practices improve communication, which increases patient safety, increased work satisfaction and results in better integration of the team (Woo, Lee, & Tam, 2017). Good nursing practices reduces variations by promoting consistency of care and contribute significantly to the quality and patient safety. The length of stay of a patient is improved, patients are guaranteed a speedy recovery and risk of injuries are reduced. Good nursing practices have a positive impact on patient's health status, satisfaction and quality of life as nurses are able to follow up with patients effectively (Sánchez-Gómez et al., 2019). Nurses have the responsibility to improve patient safety and enhance good hospital practices by discussing each patient's care and progress. Work stress is reduced for nurses when good practices are maintained. Nurses provide cancer patients and their families with understandable information on cancer prognosis, treatment benefits and harmful effects. In addition, they provide patients with psychosocial support and estimates of the total and out of pocket costs of cancer care. Good practices facilitate shared decisions between patients and their clinicians (Ferrell, Smith, Levit, & Balogh, 2014).

5.2.4 Association between key variables

The association between demographic characteristics and the overall level of knowledge and overall level of practice and was analysed. In addition, the effect of the overall level of

knowledge on the overall level of practice was also assessed. There was no association between the demographic characteristics of the respondents and the overall level of knowledge. Only health facility (p=0.003) and perceived health status (p= 0.039) were significantly associated with the practice. Furthermore, the overall level of knowledge did not significantly affect the overall level of practice (p =0.696) reported by the respondents.

5.2.5 Nurses attitude regarding early detection, caring and support of men with prostate cancer at health facilities in Windhoek.

5.2.5.1 Positive attitude towards early detection of prostate cancer

The personal beliefs and attitudes of nurses can have serious implications for their practices. The study revealed a positive attitude towards early detection from participants. The participants indicated that early detection improves treatment of prostate cancer and reduces the burden of prostate cancer which reflects a positive attitude towards early detection. This result is in line with a study by Shimizu et al. (2016) who reported that nurses' had positive attitudes towards patients with prostate cancer. The same study also revealed that oncology nurses had a more positive attitude towards death and caring for dying patients than any other health care professional. However, a study by Kearney et al. (2003) was contrary to these findings as it stated that oncology nurses hold negative attitudes towards cancer and changing these attitudes presents a significant challenge. Nurse's attitudes play a significant role among cancer patients especially in how they cope with complications of cancer and treatment.

Participants in the current study mentioned that early detection of prostate cancer reduces the disease burden on the patient and their family. They mentioned that if prostate cancer is diagnosed early it is easy to treat and cure. Care is provided at the earliest possible stage, prostate cancer cells are captured when they are not yet large and spread and prostate cancer is

more likely to be treated successfully. When cancer spreads to other organs of the body, effective treatment becomes more difficult, and a person's chance of survival is reduced.

Early detection is critical to saving lives and allows access to information early while diagnosing prostate cancer in late stages and the inability to provide treatment condemns many patients to unnecessary suffering and early death. If cancer is not detected early it exerts pressure on health budgets and results in productivity loss due to premature deaths and time taken off work. Early detection reduces cancers financial impact on families of these patients and significantly improves survival rates. If more people survive prostate cancer, treating and curing patients become less expensive. Patients can continue to work and support their families if they can access effective, less complex and less expensive treatment (Fornara, Theil, Schaefer, Heß, & Rübben, 2014).

5.2.5.2 Negative attitude towards caring of men with prostate cancer

Shortage of staff and lack of training was reported to negatively affect participant's attitudes towards caring for men with prostate cancer. Participants cited a reduction of care for their patients due to stress and burnout caused by staff shortages and high workload. They felt that they don't usually meet patients' requirements and needs, spend less time on each patient and therefore they do not offer quality care to their patients. Staff shortage negatively affects nurses as they are overburdened with work and long hours of work causing exhaustion, frustration, tension and reducing staff wellbeing. McHugh and Ma (2013) asserted that with increased workload and shortage of staff, nurses are unable to give proper attention to their patients which increase the risk of medical errors. Nurses are forced to cut their attention towards patients and omit essential tasks which is ethically unacceptable as they can worsen a patient's condition. A study by Botti et al. (2006), reported that high workload and a lack of time are potential

barriers that limited nurses' opportunity to sit down and indulge in conversations with patients to elicit their specific needs.

Another factor that negatively affected nurses' attitudes was a lack of specialised training as participants felt less skilled and knowledgeable to take care of prostate cancer patients. The contribution of nursing in the healthcare system is very important in achieving healthcare goals (Narang, 2020). Lack of training for nurses in a hospital can lead to an unsafe working environment. When there is no training going on, nurses do not understand how to do their jobs properly which leads to low morale among nurses as well as stress and medication errors. Nurses must receive proper training to ensure that they give the best possible care to the patient they treat.

5.2.5.3 Negative attitude towards the support of men with prostate cancer

In this study, participants expressed factors that reflect a negative attitude towards the support of men with prostate cancer. Participants expressed cultural values and stigmatization of nurses as factors that are negatively affecting their ability to support men with prostate cancer. Majority of the participants were female nurses in this study and were confronted with a challenge when supporting and providing health education to men regarding their sexual life and their manhood due to cultural values. Culture affects perception of health, illness and death. Cultural values affect beliefs about the way treatment should be rendered, approaches to health promotion and the types of treatment patients prefer. Nurses are more likely to have positive interactions with the patient and provide better care if they understand and distinguish their patients' cultural values, beliefs and practices. Nurses need to learn skills around cultural competence and patient-centred care. These skills will allow the exploration, respect and usage of cultural similarities and differences to improve quality of care and patient outcomes.

Personnel cultural values sometimes reduce compassion and professional care as nurses may fail to provide medication to patients who have defaulted medication intake or they may not do proper physical examinations and miss out on diagnosis. Nurses were concerned about the negative views of their spouse and families. Some family members were sacred that when a nurse works in an oncology ward they are at high risk of developing cancer. In addition, some men were not comfortable with their spouse working with men's' sexual organs because they felt it is not culturally right and it could lessen the female sex drive. Negative views towards nurses discourage holistic care; holistic care is complete care that considers the total wellbeing of the patient. The inability to provide holistic care poses a challenge on the physical, emotional, and spiritual needs of a patient (Fitriatun, 2019). These findings are in line with a study conducted by Bauer et al. (2016) which also discovered that when it comes to sexuality and older people, it appears that many nurses harbour negative attitudes and exhibit behaviour which does not allow the discussion of sexually related topics with the older person. This study suggested that the provision of education and increased exposure to older people may lead to a change in knowledge and attitudes of nurses.

It is not only nurses who allow their cultural beliefs to influence their attitudes but patients receiving care also influence nurses attitude towards support. Bauer et al., (2016) stated that older men aged over 65 avoided discussions with nurses because they felt their sexuality was a personal matter and not an issue to discuss with the nurses. Older people rarely participated in health talks regarding the prostate due to the shame, embarrassment and discomfort they felt from having a prostate problem and being sexually inactive. Cultural value is a barrier to effective communication in nursing. A study conducted by Kaihlanen et al. (2019), suggested that nurses should consider how their own cultural beliefs, values and behaviours may affect interactions with patients. In the same study, nurses were advised to understand, respect and work with differing cultural perceptions of effective treatment. An assessment should be done

by nurses on how their patients like to receive health care and treatment information. Issues about sexuality and sexual health should be able to be discussed without anxiety or discomfort so that older people receive optimal care and treatment. Prostate cancer-related stigma and myths are important problems that must be addressed. Nurses are stigmatized by their spouse and asked to leave the oncology wards to other nursing departments. Stigmas about prostate cancer present significant challenges to prostate cancer control as it has a silencing effect and hence efforts to increase cancer awareness are negatively affected.

5.3 CONCLUSION

Overall the study findings showed that respondents had a low level of knowledge regarding early detection caring and support of men with prostate cancer. Separately, respondents showed a low level of knowledge regarding early detection as well as a low level of knowledge regarding caring and support. The study also showed that overall respondents had a good level of practice. However, the majority had average practice on early detection. The study findings also concluded that participants experienced a positive attitude towards early detection, a negative attitude towards caring and support of prostate cancer.

5.4 LIMITATION

The limitation in this study is the use of self-reporting instruments which were prone to self-reporting bias and social desirability bias. Self- reporting answers create validity problems because their answers might be exaggerated because respondents are too embarrassed to disclose private details or they make their situations seem worse. With social desirability, participants or respondents answer in a way to portray themselves in a good light. It will be

hard to know if the respondent or participant understood the questions asked because in this sense questions are not always clear. However, questionnaires and interviews enable the study of large samples of people easily and immediately and variables are examined in large numbers. To minimise social reporting and social desirability bias on study outcomes, various measures were utilised during the designing phase of the data collecting method. Respondents and participants were instructed not to write down their identifying information to ensure anonymity and decrease social desirability bias. Difficult concepts were broken down into multiple connected questions to offer better clarity to the participants and respondents. Complicated wording was not used and the researcher made use of simple language to avoid confusing the respondents resulting in incorrect answers.

5.5 RECOMMENDATIONS

- The study recommended that for adequate and quality health care service, the (MoHSS) should implement in-service training to improve nurse's knowledge, attitude and practices regarding prostate cancer services.
- The study recommended the increase of staff in all oncology departments, so that staff can handle a reasonable number of patients at a time and give quality and sufficient service to each patient and the maintenance of adequate nurse to patient ratio.
- It is recommended that the oncology departments at all the health facilities in Windhoek reinforce the effects of cultural values and stigmatization, to ensure holistic nursing care.

5.5.1 FUTURE RESEARCH

Although research on cancer is conducted regularly, within the Namibian context it is scarce and therefore, evidence-based care remains a challenge. The following are recommendations for further research:

- It is recommended to repeat the study at all hospitals and regions in Namibia to generate a sound body of knowledge on prostate cancer early detection, caring and support.
- It is recommended to assess the male patients on their knowledge and attitude towards cancer and their satisfaction with care being rendered to them at various health facilities.
- A model to facilitate the effective provision of prostate cancer care service in Namibia should be developed.

5.5.2 EDUCATION

- Nurse training programs should include a component of prostate cancer care services to increase and improve knowledge and practices among nurses.
- Specialised short programs that cover effective management and treatment of prostate cancer should be introduced.

5.6 CONTRIBUTION TO THE BODY OF KNOWLEDGE

The results derived from this study will provide an understanding of the current knowledge, attitude and practices of Windhoek nurses regarding early detection, caring and support regarding prostate cancer thereby filling in a gap that existed in literature. This results can be used to craft training programs to increase the existing knowledge, improve practices and change nurse's attitudes. In addition, adds to the available literature to enhance future research.

5.7 SUMMARY OF CHAPTER 5

This chapter contained the discussion, conclusion, limitations and recommendations from this study. The knowledge attitude and care of nurses regarding early detection care and support of men with prostate cancer were discussed. Finally, the recommendations made by this study are aimed at improving quality care and support, also enabling nursing care that incorporates the meaning and understanding of prostate cancer.

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ANNEXURE A: UNAM Research permission letter

CENTRE FOR POSTGRADUATE STUDIES

University of Namibia, Private Bag 13301, Windhoek, Namibia
340 Mandume Ndemufayo Avenue, Pioneers Park
☎ +264 61 206 3275/4662; Fax +264 61 206 3290; URL.: http//www.unam.edu.na

UNAM
UNIVERSITY OF NAMIBIA

RESEARCH PERMISSION LETTER

Date: 25/09/2018

Student Name: Shikalepo F N

Student number: 201403217

Programme: Master of Nursing Science

Centre for Postgraduate Studie
Office of the Director
2018 -10- 05
University of Namibia
UNAM

Approved research title: Knowledge attitudes and practice of the nurses regarding early detection, caring and support of men diagnosed with prostate cancer in Khomas region. Namibia

TO WHOM IT MAY CONCERN

I hereby confirm that the above mentioned student is registered at the University of Namibia for the programme indicated. The proposed study met all the requirements as stipulated in the University guidelines and has been approved by the relevant committees.

The proposal adheres to ethical principles as per attached Ethical Clearance Certificate. Permission is hereby granted to carry out the research as described in the approved proposal.

Best Regards

05/10/18

Prof Marius Hedimbi

Director: Centre for Postgraduate Studies

Tel: +264 61 2063275

E-mail: directorpgs@unam.na

Date

ANNEXURE B: UNAM Ethical clearance certificate

UNAM
UNIVERSITY OF NAMIBIA

ETHICAL CLEARANCE CERTIFICATE

Ethical Clearance Reference Number: SON /438/2018 **Date: 28November, 2018**

This Ethical Clearance Certificate is issued by the University of Namibia Research Ethics Committee (UREC) in accordance with the University of Namibia's Research Ethics Policy and Guidelines. Ethical approval is given in respect of undertakings contained in the Research Project outlined below. This Certificate is issued on the recommendations of the ethical evaluation done by the Faculty/Centre/Campus Research & Publications Committee sitting with the Postgraduate Studies Committee.

Title of Project: Knowledge, Attitude And Practice Of Nurses Regarding Early Detection, Caring And Support Of Men With Prostate Cancer At Health Facilities In Windhoek.

Researcher: FRANSINA NDAPEWA SHIKALEPO

Student Number: 201403217

Supervisor(s): Dr. H. J. Amukugo (Main) Ms. V. Nuuyoma (Co)

Faculty: School of Nursing

Take note of the following:

(a) Any significant changes in the conditions or undertakings outlined in the approved Proposal must be communicated to the UREC. An application to make amendments may be necessary.

(b) Any breaches of ethical undertakings or practices that have an impact on ethical conduct of the research must be reported to the UREC.

(c) The Principal Researcher must report issues of ethical compliance to the UREC (through the Chairperson of the Faculty/Centre/Campus Research & Publications Committee) at the end of the Project or as may be requested by UREC.

(d) The UREC retains the right to:

(i) Withdraw or amend this Ethical Clearance if any unethical practices (as outlined in the Research Ethics Policy) have been detected or suspected,

(ii) Request for an ethical compliance report at any point during the course of the research.

UREC wishes you the best in your research.

Dr. J.E. de Villiers: UREC Chairperson

Ms. P. Claassen: UREC Secretary

ANNEXURE C: MoHSS approval letter

REPUBLIC OF NAMIBIA

Ministry of Health and Social Services

Private Bag 13198	Ministerial Building	Tel: 061 – 203 2562
Windhoek	Harvey Street	Fax: 061 – 222558
Namibia	Windhoek	E-mail: hnangombe@gmail.com

OFFICE OF THE EXECUTIVE DIRECTOR

Ref: 17/3/3 **FS**
Enquiries: Dr. H. Nangombe

Date: 28 March 2019

Ms. Fransina N. Shikalepo
PO Box 62734
Windhoek

Dear Ms. Shikalepo

Re: Knowledge, attitudes and practice of nurses regarding early detection, caring and support of men with prostate cancer at health facilities in Windhoek.

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 academic purpose;

3.2 No other data should be collected other than the data stated in the proposal;

3.3 Stipulated ethical considerations in the protocol related to the protection of Human Subjects should be observed and adhered to, any violation thereof will lead to termination of the study at any stage;

REPUBLIC OF NAMIBIA

Ministry of Health and Social Services

Private Bag 13198	Ministerial Building	Tel: 061 – 203 2562
Windhoek	Harvey Street	Fax: 061 – 222558
Namibia	Windhoek	E-mail: hnangombe@gmail.com

OFFICE OF THE EXECUTIVE DIRECTOR

Ref: 17/3/3 **FS**
Enquiries: Dr. H. Nangombe

Date: 28 March 2019

Ms. Fransina N. Shikalepo
PO Box 62734
Windhoek

Dear Ms. Shikalepo

Re: Knowledge, attitudes and practice of nurses regarding early detection, caring and support of men with prostate cancer at health facilities in Windhoek.

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 academic purpose;

3.2 No other data should be collected other than the data stated in the proposal;

3.3 Stipulated ethical considerations in the protocol related to the protection of Human Subjects should be observed and adhered to, any violation thereof will lead to termination of the study at any stage;

3.4 A quarterly report to be submitted to the Ministry's Research Unit;

3.5 Preliminary findings to be submitted upon completion of the study;

3.6 Final report to be submitted upon completion of the study;

3.7 Separate permission should be sought from the Ministry for the publication of the findings.

4. All the cost implications that will result from this study will be the responsibility of the applicant and **not** of the MoHSS.

Yours sincerely,

PERMANENT SECRETARY
MINISTRY OF HEALTH & SOCIAL SERVICES

MR. BEN NANGOMBE
EXECUTIVE DIRECTOR

"Health for All"

ANNEXURE D: Windhoek Central Hospital approval letter

9 - 0/0001

REPUBLIC OF NAMIBIA

Ministry of Health and Social Services

Private Bag 13215
Windhoek
Namibia

Harvey Street
Windhoek Central Hospital

Tel. No: (061) 203 3024
Fax No: (061) 222886

Enquiries: Mrs. S. Iipinge Ref. No. Date : 17 April 2019

OFFICE OF THE CHIEF MEDICAL SUPERINTENDENT

Ms. Francina N.Shikalepo
University of Namibia
Windhoek
0814466606
Email:francinanda2018@gmail.com

Dear Ms. Shikalepo

SUBJECT: REQUEST FOR PERMISSION TO CONDUCT A STUDY ON THE KNOWLEDGE, ATTITUDES AND PRACTICE OF NURSES REGARDING EARLY DETECTION, CARING AND SUPPORT OF MEN WITH PROSTATE CANCER AT HEALTH FACILITIES IN WINDHOEK.

1. Reference is made to your application to conduct the above-mentioned study.

2. This letter serves to inform you that permission has been granted for you to conduct a research on the above mentioned subject as per your request.

3. Patients/Clients information should be kept confidential at all times.

4. Copy of report to be submitted at Chief Medical Superintendent and Customer care office, Windhoek Central Hospital upon completion of the study.

Yours sincerely

17-04-2019

DR.D.I.UIRAB
CHIEF MEDICAL SUPERINTENDENT

"Health for All"

ANNEXURE E: Intermediate Hospital Katutura approval letter

Republic of Namibia

Ministry of Health and Social Services

Private Bag 13215	Intermediate Hospital Katutura	Telephone (061) 203 4004/5
WINDHOEK	Independence Avenue	Telefax (061) 222706
Namibia	WINDHOEK	

Enquiries: Dr. F. M. Shiweda

Date: 29 April 2019

OFFICE OF THE CHIEF MEDICAL OFFICER

Ms. Fransina N. Shikalepo
P. O. Box 62734
Windhoek

Dear Ms. F. N. Shikalepo

RE: **Knowledge, attitude and practice of nurses regarding early detection, caring and support men with prostate cancer at health facilities in Windhoek.**

The above mentioned subject refers:

This office hereby grants you permission to do a research on knowledge, attitudes and practice of nurses regarding early detection, caring and support of men with prostate cancer at health facilities at Katutura State Hospital, Khomas Region, MoHSS, Windhoek.

Thank you

Yours in health,

.....

DR. F. M. SHIWEDA
CHIEF MEDICAL OFFICER

MINISTRY OF HEALTH
AND SOCIAL SERVICES
P/BAG 13215
WINDHOEK NAMIBIA
29 -04- 2019
OFFICE OF THE CHIEF MEDICAL OFFICER
HOSPITAL KATUTURA

ANNEXURE F: Khomas Reginal Director approval letter

9 - 0/0001

REPUBLIC OF NAMIBIA

Ministry of Health and Social Services

Private Bag 13322 | Khomas Region Directorate | Tel: 061 - 2035011
Windhoek | Florence Nightingale Street | Fax: 061 – 235997
Namibia | Windhoek

Enq: Mr. B. Isaacs **Ref: S4/9** **Date: 7 May 2018**

OFFICE OF THE DIRECTOR

STAFF MATTER: CONFIDENTIAL

MS. FRANSINA N. SHIKALEPO
P.O. BOX 62734
WINDHOEK
NAMIBIA

Dear Ms. Shikalepo

I have the pleasure to inform you that as per Executive Director's approval, permission has been granted for you to conduct a study on "Knowledge, attitude and practices of nurses regarding early detection, caring and support of men with: prostate cancer at health facilities in Windhoek" for a period of eight (8) months from the 13 May until 14 December 2019.

The office wishes you success with your research.

Yours sincerely

MS. ELIZABETH MUREMI
DIRECTOR: KHOMAS REGION

MINISTRY OF HEALTH AND SOCIAL SERVICES
P. BAG 13322 WINDHOEK
2019 -05- 09
KHOMAS REGION
RESOURCE OFFICE
REPUBLIC OF NAMIBIA

"Health for All"

ANNEXURE G: Informed consent form

INFORMED CONSENT TO PARTICIPANT

KNOWLEDGE, ATTITUDE AND PRACTICE OF NURSES REGARDING EARLY DETECTION, CARING AND SUPPORT OF MEN WITH PROSTATE CANCER AT HEALTH FACILITIES IN WINDHOEK, NAMIBIA, A MIXED METHOD STUDY.

Researcher: Fransina Ndapewa Shikalepo

Dear participant

I am Fransina Ndapewa Shikalepo registered with the University of Namibia, doing Masters of nursing science. I wish to conduct a research project entitled: knowledge, attitude and practice of nurses regarding early detection, caring and support of men with prostate cancer at health facilities in Windhoek, Namibia: A mixed-method study. The study will be conducted under the supervision and guidance of Dr H. Amukugo and Ms Vistolina Nuuyoma School of Nursing and Public Health, University of Namibia. The objectives of this study are to determine the knowledge of nurses regarding early detection, caring and support of men with prostate cancer at health facilities in Windhoek, Namibia. Assess nurse's practices towards the provision of services regarding early detection, caring and support of men with prostate cancer at health facilities in Windhoek. Explore and describe nurse's attitude on early detection, caring and support of men with prostate cancer at health facilities in Windhoek, Namibia.

Your participation will provide information that might enable decision-makers to assist in this regard. Participation in this study will take approximately 5-15 minutes. The procedure includes responding to questions on demographic, knowledge, practices and attitude. Meanwhile, individual interview and questionnaires will be used by the researcher and this will assist the researcher to gain more insight and understanding. Your participation in this study is voluntary and you have the right to withdraw at any time should you feel so. You should feel free to ask the researcher to clarify the question where you don't understand and you will be

expected to answer all questions for the questionnaire and interview. The study data will be coded so they will not be linked to your name. Your identity will not be revealed during the study or when the study is being reported or published with the permission granted by the Ministry of Health and Social Services for the benefit of improving care. The researcher and the supervisors are the only people that will have access to the data collected. You are among the study population of the selected health facilities. Should you agree to participate, please sign your consent with full knowledge of the nature and purpose of the study.

If you have any questions or concerns about the research, please feel free to contact Fransina Ndapewa Shikalepo, cell (0814466606) or E-mail *fransinanda2018@gmail.com* The main supervisor Dr.H.Amukugo at 061-2064617: E-mail: ***hamukugo***@unam.na and co-supervisor E-mail vnuuyoma@unam.na Faculty of Health Science, School of Nursing and Public Health, at the University of Namibia.

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims or rights because of your participation in this research study thank you for your participation.

I.....

Agree to participate in this research project on my own will.

Signed at .....

....

Participant signature Date

ANNEXURE H: Questionnaire

QUESTIONNAIRE

Researcher: Fransina Ndapewa Shikalepo Institution: University of Namibia

The following questionnaire is part of a study to be conducted titled: Knowledge, attitude and practice of nurses regarding early detection, caring and support of men with prostate cancer at health facilities in Windhoek, Namibia. To ensure confidentiality, please do not write your name on the questionnaire as this study is anonymous. Thank you very much for taking the time to complete the questionnaire, your effort is greatly appreciated.

GUIDES FOR COMPLETING THE QUESTIONNAIRE

Please read through the entire questionnaire before starting to respond to the questions. All responses will be treated confidentially and you are required to complete all questions.

Knowledge, attitude and practice of nurses regarding early detection, caring and support of men with prostate cancer at health facilities in Windhoek, Namibia

Date_____

Questionnaire Number_____

Instructions: Please Tick (√) where appropriate

1. **Section A: Socio-Demographic Characteristics**

1.1 Age ☐

1.2 Gender Male ☐ Female ☐

1.3 Nationality Namibian ☐ Zimbabwean ☐ Other ☐

1.4 Race ☐

White ☐ Black ☐ Other ☐

1.5 Religion ☐ Islamic ☐ Christian ☐ other ☐

1.6 Highest qualification obtained

Certificate ☐ Diploma ☐ Honours Degree ☐ other ☐

1.7 Number of years working with cancer patients ☐

1.8 Number of years working with prostate cancer patients ☐

1.9 Can you rate your health status

Poor ☐ Average ☐ Good ☐ Excellent ☐

1.10 Knowledge of prostate

Some knowledge ☐ No knowledge ☐

1.11 Passion for nursing career

No passion ☐ moderately passionate ☐ highly passionate ☐

Section B: Knowledge of nurses regarding early detection, caring and support of Men with prostate cancer in health facilities in Windhoek. Instructions: please tick where applicable

2.1 Early detection	Agree	Neither Agree or Disagree	Disagree
2.1.1 Prostate cancer does not have a hereditary correlation			
2.1.2 hot flushes are related to prostate cancer			
2.1.3 a sedentary lifestyle is related to prostate cancer			
2.1.3 60% of cases of prostate cancer arise in men over 65 years of age			
2.1.4 Diets high in red meat and fatty foods appear to be associated with higher risk of developing prostate cancer			
2.1.5 Blood in the urine has no association with prostate cancer			
2.1.6 Prostate- specific antigen is a protein produced by cells in the prostate			
2.1.7 Most men with prostate cancer have a prostate- specific antigen level under 4 Nano grams per millilitre of blood			
2.1.8 Prostate abnormalities, such as benign enlargement and cancer are rarely associated with increasing prostatespecific antigen in the bloodstream			
2.1.9 Orchiectomy is a surgical procedure to treat/ prevent prostate cancer from spreading			
2.1.10 Anaemia is a common side effect of chemotherapy prostate cancer treatment			

2.2 Caring and Support	Agree	Neither agree or disagree	Disagree
2.2.1 A patient presenting with sexual and erectile dysfunction does not require nursing care			
2.2.2 Quality cancer care must integrate the psychosocial domain routine care			
2.2.3 Emotional distress, needs close support and should be measured as the sixth vital sign of prostate cancer			
2.2.4 Nurses are not responsible for referring patients with psychological issues to professionals			
2.2.5 Nurses are not responsible for giving health education regarding prostate cancer to patients			
2.2.6 Men with prostate cancer require a one to one counselling with a nurse			
2.2.7 Providing information and supporting men in making treatment decisions is not a role of the nurse			
2.2.8 It is not the responsibility of nurses to assess patients for their side effects and offer formal assessment and treatment for troubling symptoms			
2.2.9 Not only oncology and palliative care but primary care should also be considered in caring for prostate cancer patients			
2.2.10 Empathy and thoughtfulness are very important in helping patients, family members and spouse of those affected cope with prostate cancer			

3. Section C: Practice of nurses regarding provision of services (early detection, caring and support).

Instructions: please tick (√) where applicable

3.1 Early detection	Yes all the time	Sometimes	No at all
3.1.1 Do you assess the risk factors of prostate cancer during history taking among men			
3.1.2 Do u consider the patient's age during history taking			
3.1.3 Do you ask about the duration of the patients complaints			
3.1.4 Do you insert a gloved lubricated finger into the patient's rectum to assess prostate size			
3.1.5 Do you consider the patients family medical history during early detection of prostate cancer			
3.1.6 Do you carry out physical examination to assess the suprapubic area for signs of bladder distention in men			
3.1.7 Do you initiate procedures for cancer diagnosis immediately after history taking			
3.1.8 Do you order tests to confirm prostate cancer form suspected of prostate cancer			
3.1.9 Do you review test results for patients suspected of prostate cancer			
3.1.10 Do you interpret test results for prostate cancer patients			

3.2 Caring and support	Yes all the time	Sometimes	No at all
3.2.1 Do you as a nurse offer psychological, emotional, social and spiritual support to patients with prostate cancer and their family members too?			
3.2.2 Do you give advice to patients with prostate cancer or those coming for screening with urology related problems			
3.2.3 Do you care for the spouse of affected patient with prostate cancer			
3.2.4 Do you discuss sexual related matters with patients undergoing cancer treatment for prostate cancer			
3.2.5 Do you allow prostate cancer patients to interact with one another			
3.2.6 Do you counsel patients diagnosed with prostate cancer			
3.2.7 Do you offer palliative care to men with prostate cancer			
3.2.8 Do you have special groups that assess and provides specific care to men with prostate cancer			
3.2.9 Do you advice patients diagnosed with prostate cancer about treatment options as a nurse			
3.2. 10 Do you comfort patients with prostate cancer during treatment or after treatment			

Thank you for your participation.

ANNEXURE I: Interview Guide

Student Name: Fransina Ndapewa Shikalepo

Institution: University of Namibia

Student Number: 201403217

Research Title

Knowledge, attitude and practice of nurses regarding early detection, caring and support of men with prostate cancer at health facilities in Windhoek, Namibia: A mixed-method study.

Interview Guide

Attitude regarding prostate cancer services early detection, caring and support

Demographic characteristics	
Participants age	
Gender	
Qualification	
Ethnicity	
Hospital	
Grade	

What do you think about;

1. *Early detection of prostate cancer?*
2. *Caring and support of men with prostate cancer?*

ANNEXURE J: Transcription of the interviews participant number 1

Interview date : 10 July 2019

Language of the interview : English

Place : Windhoek central hospital

Region : Khomas

Time : 13H18

R= Researcher

P= Participant

R : Good Morning sister?

P : *Good morning!*

R : I am Fransina Ndapewa Shikalepo registered with the University of Namibia, doing Masters of nursing science. I wish to conduct a research project entitled: knowledge, attitude and practice of nurses regarding early detection, caring and support of men with prostate cancer at health facilities in Windhoek, Namibia: A mixed-method study. The study will be conducted under the supervision and guidance of Dr. H. Amukugo and Ms Vistolina Nuuyoma School of Nursing and Public Health, University of Namibia. The objectives of this study are to determine the knowledge of nurses regarding early detection, caring and support of men with prostate cancer at health facilities in Windhoek, Namibia. Assess nurse's practices towards the provision of services regarding early detection, caring and support of men with prostate cancer at health facilities in Windhoek. Explore and describe nurse's attitude on early detection, caring and support of men with prostate cancer at health facilities in Windhoek, Namibia

Your participation will provide information that might enable decision-makers to assist in this regard. Participation in this study will take approximately 5-15 minutes. The procedure includes responding to questions on demographic, knowledge, practices and attitude. Meanwhile, individual interview and questionnaires will be used by the researcher and this will assist the researcher to gain more insight and understanding. Your participation in this study is voluntary and you have the right to withdraw at any time should you feel so. You should feel free to ask the researcher to clarify the question where you don't understand and you will be expected to answer all questions for the questionnaire and interview. The study data will be coded so they will not be linked to your name. Your identity will not be revealed during the study or when the study is being reported or published with the permission granted by the Ministry of Health and Social Services for the benefit of improving care. The researcher and the supervisors are the only people that will have access to the data collected.

R : Is it okay?

P : *Yes it is fine.*

R : Okay sister, so I am going to ask you a few questions which are based on knowledge.

R : My first question is, do you believe nurses have knowledge on prostate cancer?

P : *Yes, I think so.*

R : uhmm! What makes you think so, what do you mean by yes I think so?

P : *Normally the nurses are the ones that are taking care of the patients most of the hours that's why especially "deep breathing" in my unit here, normally it has to do with the prostate CA, most of our patients they are normally regarded to such a diagnose that's why I am saying most of the nurses they are aware of the prostate cancer.*

R : "Deep breathing" Okay, by nurses being aware, what are the methods? Or what are you aware of prostate cancer? What is the knowledge that nurses are having on prostate cancer?

P : *The knowledge? Especially when it comes to the history taking of the patient whenever the patient is coming on the health facility we used to take their history and therefore we will come up with the diagnose related to that, it might be either according to the examination that we are going to do especially the physical examination and "silence" some of the examinations.*

R : Okay, so do u believe prostate cancer early detection is important in your own opinion?

P *: in my own opinion early detection is very important cause after the early detection you can treat the action, especially with the prostate cancer you have to take action so that we can uhhhmm! First of all uhmmm!!! We explain the condition to the patients what are the , precautions the patient with proste cancer can do and then you need to give them health education to the patient regarding to the condition so that the patient will not give up because nowa days it seems like prostate cancer is playing a role in the world.*

R : So the health education that you have, what is it based on. Do you have any policies in place that allows you to give health education to the patient or how do you give your health education to these people who have prostate cancer? What are the actions that you take, "you know" what is the knowledge that is there based on prostate cancer?

P : *first of all, since we know that privacy is the first thing to do, one has to call the patient privately since all the patient who will be detected with prostate cancer, first off all they used to be frustrated, therefore we have to give them counselling to the patient before even the health education you need to call the patient privately and then you explain the condition and then you should give the health education relating to the social condition. Especially sometimes the*

diet the patient needs to take and maybe the patient is smoking, one should tell the patient to reduce some of the social things that the patient is doing that's all!!

R : okay, uhmm!! Thank you very much for that one. Do you believe there is enough practices and enough care for these men with prostate cancer?

P : *They are what? Sorry! I didn't take the question very well.*

R : Okay. My question was, do you believe practices in caring for these men with prostate cancer, and do u believe there is enough practices in place for caring for these men?

P : *Yes!!*

R : How please explain?

P : *Ya, there are enough practices, although nowadays we have shortage of stuff, we have to make an arrangement since all the or most of the patients they have been diagnosed with that condition of the prostate CA. because we need to give quality nursing care to our patients, we have to take care of them accordingly. Maintain their privacy but we also need to put them in the same room considering time, so we can explain the condition to them at the same time regarding to their diagnose that they have in order to render the quality nursing care to our patients.*

R : Okay I just want to ask, what do you mean by quality nursing care?

P : *Normally, the uhmm!! The main purpose of nursing care is to nurse the patient according to their condition that they are having. And to give them quality treatment especially on prostate CA. for us to confirm the prostate CA when the doctor takes the specimen that is the prostate biopsy that they take for them to confirm that PSA blood is high which is confirming the prostate CA. we also spoke about the shortage of stuff, we should make sure*

that or at least patients all come at the same time for follow up to get the same management once.

R : Okay sister, my question is how do nurses play a role in early detection, the doctors confirm the test in other words do you also play a role in the confirmation of prostate cancer in patients? What are the actions? What is the first thing that a nurse does to confirm prostate cancer?

P : *we as nurses don't confirm the prostate cancer, there are dependent and independent factors we are dependent factors. We only do what the doctor say according to their diagnose and then we take actions for example we give prescribed prostate cancer medication for those patients that are confirmed to be having prostate cancer, and we assist the doctors in taking their specimen. We only do our routine work example, the observation of the patient and then we report the abnormalities of the patient, that's all I know sister!!*

R : Okay sister that is very good! Uhhhmm! Do you believe these men with prostate cancer require extra care during their prostate cancer diagnosis and treatment?

P : *Ya, extra care meaning psychological and emotional condition care, because it is not easy to be diagnosed with prostate cancer and it is really playing a role nowadays. Therefore, some of the patients after they are diagnosed they end up with psychological problems, so they will be needing psychological support like, sending them to social workers regarding the condition that they are having.*

R : Is there any services in place apart from the social worker, is there any other services that you render to these men in order to care and support to them, any other care within the hospital?

P : *In the hospital it's only in the ward, but in Windhoek we have cancer association centre, they have patients with different cancers even though most people normally focus on*

prostate cancer. Patients need to share ideas regarding their condition, I think they will give psychological support to each other to have courage that there is also someone out there going through the same condition.

R : Okay, do u refer patients to cancer association or does the cancer association representatives come see patients in the ward?

P : *We don't refer to cancer association but they refer some patients to us with their sisters that are normally taking care of them. We only give our patients follow ups after they have been done a certain procedure or certain operation we discharge them home and give them follow up after each and every third month to go to their local clinic for their PSA bloods to be drawn at local clinics. They also come to the ward with those results than doctors see if they is a need to operate on them or not. Here they do the "BO" bilateral orchiectomy they target the testicles and remove them because normally at the testicle that is where the prostate gland is felt. That's why they do the bilateral orchiectomy after that the patients' are given a follow up with their local clinics for their bloods to be taken after that they then bring the PSA results for the doctor to see whether there is a certain improvement after the procedure.*

R : Okay, is there a certain age limit to remove the testicles or do you remove on all the men with prostate cancer or how do you do that?

P : *Yes!! Sister you know!! "Giggles" uhmmm! First you have to confirm with the patient regarding to the consent , you have to ask permission from the patient whether he understand the procedure the doctor first needs to explain the procedure to the patient they don't have a certain age limit nowadays , they normally used to target from 45 or 50 years and up, but they used to check the condition because sometimes they use to give the zoladex injection it supresses the gland especially if the patient is from 45 they consider how young they are and give them the zoladex injection. Prostate cancer has stages 1, 2, 3, and 4 so if they have seen*

that the zoladex did not work and it has become a metastasis, where it has spread all over the body they will ex2plain the procedure ask for consent and carry out the BO. Patient is also given time to go home to the family to think about the procedure and decide with the family than they can come back for the operation.

R : Okay so do this men also get psychological care before the testicles are removed?

P : *Yes sister, earlier on I have mentioned about the social worker. If the patient cannot get enough psychological care from the nurses after the explanation of the procedure the doctors normally used to refer the patient to the social worker regarding the produce if they understand than they can decide to do the operation.*

R : Okay, after the testicles are removed do you also care for this patients in this ward (Oncology ward 2East) or in another department?

P : *normally, "uhmmm" we receive our patient from theatre and give them extra care, they come with an open sutured wound so we do the dressing, after few days the patient gets discharged with the medicine health education is provided to them. For patient to get the dressing done at the local clinics and then after few days the patient also gets a doctors follow up, to see the progression of the wound and, uhmm!! Patient is also given an "NIP" paper for PSA bloods to be drawn at local clinics. To see the prognosis of the prostate CA after the removal of the testicle.*

R : The other question is how do you feel regarding supporting these men with prostate cancer?

P : *You know!! "Laughter" we are here to take care of the patients normally, even if I feel lonely because it is a condition, prostate CA is just like any other condition although nowadays it is playing a role it is found in several patients. I will not show my emotions to the patient so that the patient can also see that it is a trouble disease I will just treat him like any*

other patient , then my concern will just be on the health education regarding to the social event, either regarding to smoking , food especially red meat and fatty food. I will not be sympathetic or empathetic towards the patient, because the patient will see that even the sister thinks this is a trouble disease.

R : Okay sister can you please explain on the fatty food how does it come in connection with prostate cancer?

P : *uhmmm!! According to research they said fatty meat and fresh red meat it will increase the speed of cancer but I don't want to lie, I only heard the doctors saying that fatty meat is not good for the prostate CA patients cause it seems like they increase speed of prostate cancer they should include chicken fish in their meals. Earlier I have mentioned smoking, smoking is not good at all it does not have any good effect, smoking can destroy the body organs especially the lungs. According to the doctors smoking can also increase chances of developing prostate cancer. Uhmm!! "Laughter" I don't have the anatomy to explain more in details.*

R : sister, do you believe you have a negative or positive attitude towards prostate cancer?

P : *hmmm!! "Deep breath" positive!! Prostate CA is just like any other disease. I am not against the condition but I will take it as any other condition and I will treat the patients the same that's all.*

R : Okay sister, thank you very much for that, that was a very productive interview thank you very much, do you have anything else that you would love to add?

P : *hmmmm!!yes, to the sisters or to the health workers that are working at the local clinics whenever you are doubting, especially when it comes to the physical examination of the patient regarding prostate CA, focusing on the male patients according to the curriculum whenever patients are being screened, male from 45 and 50 years above we should maybe*

come up with the curriculum of doing the physical examination of the patient which will also include the prostate strictly. We think when it comes to the prostate we think it is only doctors who should perform the examination. it's better for us nurses when we are doing the history taking we should listen to the complaint and consider the age of the patient especially when are screening the male patients so that we can also include the testing of prostate cancer and also reminding doctors to check the prostate of the patients so we can manage the condition and render quality nursing care.

R : Okay, sister you mentioned about physical examination of nurses not doing it, so nurses do not do physical examination of the patients, or men coming with these complains referring to prostate cancer?

P : *It's not easy!!! Because the physical examination which I am talking about is not Ear nose and throat (ENT), sometimes it is difficult to say "sir please lie down and then put on gloves and feel the prostate, it will be difficult for me " but if driving back to the patients history and age. Based on the increase of prostate cancer I can put on my gloves and feel the prostate. Doctors always feel the prostate we can also ask them "Doctor how do you feel the prostate can I do it for today so I can also feel the prostate" we attend to the patients first so next time you will also say "okay Tate (Dad) can you please lie down so I can feel the prostate" when you refer the patient to the doctor already you say "no doctor I felt the prostate and it is big now" to reduce the number and give proper management.*

R : Sister, you also mentioned nurses not telling patients to lie down, do you think nurses are shy to carry out these physical examination on the genitals of male patients?

P : *uhmm!! It is not easy especially when it comes to the private parts of men, we only end up with history taking we don't do physical examination it is really not easy to carry that out but other nurse say it is not part of our scope of practice to do rectal examination we can*

also try see if a patient has an abscess on the rectal we can do the examination and tell the doctor what you get to correlate the results like they say two heads are better than one.

R : okay sister, thank you very much for the interview that was participant number one from Windhoek central hospital.