

**THE LIVED EXPERIENCES OF PATIENTS WHO ARE DIAGNOSED  
WITH HYPERTENSION IN THE OSHANA REGION IN NORTHERN  
NAMIBIA**

**BY**

**PETRUS AMKOSHI AMKONGO**

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**STUDY SUPERVISOR: PROFESSOR LF. SMALL**

**CO-SUPERVISOR: DR. M. VAN DER VYFER**

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## **ABSTRACT**

The effects of hypertension are cumulative with regard to its negative influence on the organ system in the body. Equipped with the right knowledge, a person can either prevent or slow down these cumulative effects or adapt to the changing life styles. An afflicted person can adapt to his/her condition and make certain life style changes which must be maintained permanently. A person's success in adhering to the necessary adjustments will depend to a certain extent on how he or she experiences the life style changes as well as the effects of medicines which are prescribed. It is not readily apparent how well patients are being prepared and educated to counteract hypertension and how to slow down its cumulative effects. The purpose of this study was to explore and describe the lived experiences of patients diagnosed with hypertension in the Oshana Region in Northern Namibia with the aim of developing guidelines on how to make the necessary life style changes which would ameliorate their condition.

The research design in this study was qualitative, exploratory, descriptive and contextual in nature. The population consisted of participants who were treated for hypertension and a purposive sampling method was utilized. A total number of ten participants were interviewed and the data collection ended only when data saturation was obtained. The findings were presented in three main categories and sub-categories. The first main category is "experiencing varying degrees of

comprehension of the disease process”. This main category does not have any sub-category. The second main category is “positive and negative experiences regarding treatment”. The two sub-categories of this main category are “experiences of beneficial effects of medicine” and “experiences of negative effects of medicines”. The third main category is “inadequate information sharing by health workers” with its two sub-categories namely, “lack of information regarding possible sexual dysfunction” and “lack of information regarding the type of foods to eat or types of drinks to consume”. The findings through the three main categories and sub-categories indicated that participants received inadequate information from health care workers regarding the disease process as well as types of effects medicines could have on the body. Participants also had inadequate social support systems and they had negative experiences with regard to treatment. It was concluded that these participants were not prepared by health care workers how to cope with this chronic illness, and that their medicine dosages and scheduling might not be totally individualized.

**Keywords:**

**Lived experiences**

**Hypertension**

**Person**

**Health**

**Environment/ Context**

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Lastly, I dedicate this piece of work to my Almighty God who made it possible for me to achieve what I did.

**DECLARATION**

I declare that the living experiences of patients who are diagnosed with hypertension in Oshana Region in northern Namibia is my own work and all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

.....

.....

**Signature**

**Date**

## **CHAPTER 1**

### **INTRODUCTION AND BACKGROUND TO THE STUDY**

#### **1.1 INTRODUCTION**

The human body requires a constant supply of oxygen and nutrients for each and every cell. This supply is accomplished mainly through the cardiovascular system and more specifically the rhythmic contraction of the heart. During every individual contraction of the heart each ventricle ejects about 70 millilitre of blood into the pulmonary artery and aorta. It is mainly the aorta that is responsible for distributing this volume of blood first onto each and every cell where the gas exchange and nutrients exchange will occur (Wilmore, Costill and Kenney 2008, p. 124).

The rhythmic ejection of the blood by the ventricles generates two pressures in the aorta. The contraction pressure necessary to eject the blood creates the systolic blood pressure in the aorta, and the pressure during the period of relaxation is called diastolic pressure (Wilmore, Costill and Kenney, 2008, p.132).

These two pressures in healthy individuals are 120 mmHg for the systole and 80mmHg for the diastole. Whenever these two pressures are elevated, the term hypertension is used. Hypertension is usually officially diagnosed in a patient with a blood pressure that exceeds a systolic pressure of 140 mmHg and a diastolic pressure of 90 mmHg. Hypertension is a scientific term used in the medical and nursing fields to denote an elevated pressure of blood. The corresponding non-scientific

word with the same meaning is high blood pressure. Hypertension is therefore a state of blood pressure that exceeds a persistent systolic pressure of 140 mmHg and a diastolic pressure of 90 mmHg (Sherwood, 2007, p. 373-374).

In the United States of America (USA) the term pre-hypertension is used in patients whose systolic blood pressure ranges between 120–139 mmHg for systolic pressure and 80-90 mmHg for diastolic pressure (De Laune and Ladner, 2011, p. 523).

There are two types of hypertension namely, primary hypertension and secondary hypertension. Primary hypertension results from unknown causes. This type of hypertension affects about 90% of all hypertension cases. It is also called essential hypertension and as its causes are not known, it is also called idiopathic hypertension (Sherwood, 2007, p. 373-374).

Secondary hypertension develops secondary to another primary pathological problem and can be established only in the remaining 10% of hypertension cases. The following are some examples of secondary hypertension, such as renal hypertension affecting the kidneys (due to renal disease), endocrine hypertension affecting the one or more endocrine glands (due to endocrine disease) and neurogenic hypertension affecting the nervous system (due to nervous system disease) (Sherwood, 2007, p. 373-374; Meyer, Nair and Peate, 2009, p. 138-139).

Hypertension develops when the normal regulation of blood pressure is malfunctioning. This development may occur over many years. It affects people of

all ages, sexes, children, pregnant women and the elderly. The normal blood pressure which is known as normotension, is at the average of 120/80 mmHg for an average sized adult person who has a body weight of about 70 kg, and 104/70 mmHg for a child. Internationally, and according to the World Health Organization (WHO), should a person reach a persistent level of blood pressure of 140/90 mmHg, such a person needs to be treated for lower border line hypertension.

This view is also echoed by Dreyer (2007) who agrees with the World Health Organization (WHO) that a patient with a sustained resting systolic blood pressure of more than 120 mmHg or a diastolic blood pressure of higher than 90 mmHg is probably suffering from established essential hypertension. This situation increases the risk of coronary heart diseases, stroke and damage to other target organs damage, and needs to be treated.

Meyer, Van Papendorp, Meij and Viljoen (2004, p. 14.26), suggest that the upper limit of blood pressure should be lowered to about 135 mmHg for a systolic pressure reading and about 85 mmHg for a diastolic pressure. This is an indication of how seriously high blood pressure (hypertension) is viewed.

The seriousness of hypertension is also echoed by Hinchliff, Montague and Watson (1996, p. 426) who stated that, “a young adult of 35 years of age who has been diagnosed with hypertension of which the diastolic pressure is 100 mmHg, stands a chance to live for 16 years only”. What makes the condition worse is the fact that individuals with hypertension are in most cases without symptoms and damage to

some organs (kidneys, brain, and heart) could already have occurred during this “silent” period. This “silent” and asymptomatic period rendered high blood pressure to be called a “silent killer”, because the organ damage is occurring without any warning signs.

So, the longer the patient remains untreated for hypertension, the greater the damage and the higher the probabilities for a disability, like cerebro-vascular accidents (strokes) and other target organs’ complications (kidneys, heart) to occur (Rang, Dale, Ritter and Flower, 2007).

Some authors suggest that to prevent and control hypertension, requires well-structured healthcare education that should be adhered to by hypertension patients to prevent serious complications such as strokes, which can lead to disabilities (Perris and Mussi, 2009).

Hypertension is also a major problem in Namibia. According to half yearly data obtained from the offices of Oshana Regional Health Directorate of the Ministry of Health and Social Services’ statistics, about 3000 patients were treated for hypertension per month in 2010. Of this number, (3000), 39 patients between the ages of 5 to 17 years were also diagnosed with hypertension. It was also documented that out of these 3000 patients, one of them was a child at the age of under five years, who was also diagnosed with hypertension (Ministry of Health and Social Services: Oshana Region Health Directorate, June, 2010).

While the causes of hypertension are not always known, the following could be some of the contributing factors namely obesity, stress and arteriosclerosis (David, Jackie and Lewis, 2000, p. 365).

## **1.2 PROBLEM STATEMENT**

Hypertension is cumulative with regard to its negative effects on other organs.

A person with hypertension needs to be equipped with the necessary knowledge to prevent or slow down these cumulative effects on other organ systems. This person (patient) has to make certain life style changes and adaptations and has to adhere to it. The degree of adherence depends to a certain extent on how the patient experiences the changes that have been made as well as the effects of different medicines, which are usually prescribed. It is not clear what patients who are diagnosed with hypertension are experiencing.

Also, it is unknown how effectively patients are prepared and educated on the prevention or management of these cumulative negative effects. This could be made known through an exploration of the experiences these patients have accumulated.

## **1.3 RESEARCH QUESTION**

From the introductory and background information coupled with the problem statement, the guiding question of this study was:

*“What are the lived experiences of patients who are diagnosed with hypertension in the Oshana Region in northern Namibia?”*

#### **1.4 THE PURPOSE OF THE STUDY**

The purpose of this study was to explore and describe the lived experiences of patients who are diagnosed with hypertension in the Oshana Region in northern Namibia and to develop some guidelines that will be used to prepare and educate patients regarding life style changes and adaptations that need to be made.

#### **1.5 OBJECTIVES OF THE STUDY**

The objectives of the study were to:

- Explore and describe the lived experiences of patients diagnosed with hypertension
- Develop guidelines to educate patients regarding certain life style changes and adaptations that need to be made.

#### **1.6 PARADIGMATIC PERSPECTIVE**

A paradigm is a term that originated from linguistics where it takes on a variety of different meanings, all for the same word. It can be used as a noun or a verb. Mouton and Marais (1990), in De Vos, Strydom, Fouche and Delport (2011, pp.40-41) indicate that Kuhn started using the term paradigm and its supporting theory related to a paradigm, and this had a major impact on the philosophy and methodology of social sciences. Later on, Kuhn spent one year among the

communities of social scientists and natural scientists where he was confronted with unanticipated problems and was particularly amused by the extent of disagreement amongst these groups.

Nevertheless, in nursing research or research about nursing, there tends to be a consensus on what it entails. In nursing a paradigm is viewed as a set of assumptions, a framework or a world viewpoint that is based on people's philosophy about the social world, the nature of knowledge and how the researcher understands and interprets the material about the reality. These views differ according to the field under "microscope" at any given time frame. "In the natural science field, these views are the nature. In the social science field, like the nursing, these views include individuals or group of people as research materials" (De Vos, Strydom, Fouche and Delport 2011, p.513).

Paradigms therefore act as perspectives that provide a rationale for the research and commit the researcher to a particular method of data collection, observation and interpretation. They help people to understand a phenomenon and they are basic sets of beliefs that guide action (Blanche, Durrheim and Painter, 1999). According to De Vos, Strydom, Fouche and Delport (2005), the researcher must decide what paradigm he/she is using in his/her research and know the nature of his/her selected paradigm according to which he/she will communicate to the reader.

The researcher will present examples of some types of assumptions in the following paragraphs.

## **1.7 ASSUMPTIONS**

Assumptions are statements that researchers assume to be true for the purpose of research (Polit, Beck and Hungler, 2001).

The truth of an assumption is accepted for the purpose of the investigation at hand. They function as foundational beliefs or statements that support whatever decisions are made by the researcher in the research process (Mouton, 1996).

The next discussion point will position the viewpoints of the researcher regarding the different assumptions.

### **1.7.1 META-THEORETICAL ASSUMPTIONS**

Meta-theoretical assumptions include a broad spectrum of assumptions, for example ontological assumptions and axiological assumptions. Meta-theoretical assumptions with regard to person, health, environment and nursing were also considered. Together, these last four assumptions make up meta-paradigm of the discipline of nursing (George, 2011). The first assumption that will be discussed concerns about ontology.

### 1.7.1.1 ONTOLOGICAL ASSUMPTIONS

Ontological assumptions are those that are concerned with the nature of the research object in its various manifestations (Mouton and Marais 1990). In addition, Mouton (1990) suggests that ontological assumptions are implicit in our understanding of human nature and society. What is important for a researcher is to obtain an understanding of how individuals experience the personal and social reality in which they live.

**Assumption:** The person who is diagnosed with hypertension has the freedom to make choices concerning his/her lifestyle; therefore the patient should take the responsibility for his/her choices.

Despite the negative consequences, as a result of their ill-advised decisions concerning their diseases, the patients can, with the necessary support and information do more beyond their current situation and make beneficial choices that will create desirable consequences and more optimistic futures.

### 1.7.1.2 AXIOLOGICAL ASSUMPTIONS

Polit and Hungler (1999) submitted that for the axiological assumptions to be formulated, the following question should be asked. “What is the role of values in this inquiry?”

The researcher is therefore sensitive that values play an important part in interpersonal relationships and that the researcher as well as the participant, has his / her own value system. This is influenced by the way people view their health and belief systems.

**Assumption:** The patient who is diagnosed with hypertension has his/her own value or belief system, and therefore will obey what is important to him/her with reference to health information.

Mouton, (1996, p.174) asserts that it is therefore important that all concepts in a research study should be clearly defined. The researcher has defined all the key concepts that are relevant to this research study. [See point 1.8: “*Operational definitions*”]

The next discussion point about the “person” is one of the main four connecting assumptions in defining the metaparadigm that is nursing.

### **1.7.1.3 PERSON**

The term person represents an individual, a family, a community or even the whole humankind. For the purpose of this study, a person represents the patient diagnosed with hypertension and receiving nursing care for this chronic disease. The researcher, during the empirical phase of the study, regarded these persons or patients as “*participants*”. The term *patient* was therefore equated with the term “*participant*”. The reader will therefore encounter all three terms, depending on the context of the discussion being dealt with at a given time.

There will always be a patient or person suffering from hypertension which is a cardio-vascular disease that seems to have a high prevalence in the world in general and in Namibia in particular (George, 2011). Therefore a person is never in exactly the same state of equilibrium, it continuously fluctuates, and quite often it is due to a current health status that is being experienced. The next discussion will be on “*health*”.

### **1.7.1.4 HEALTH**

Health is referred to as a state of well-being. It is also suggested that health is a unity and harmony within the mind, body and soul of an individual. It therefore represents a total absence of physical disease and any other health threatening social problem. As a state of well-being, the health of a patient suffering from hypertension is very important, because at times the patient is symptom free and by the time diagnosis is

official, it might be too late. Some patients are diagnosed during post mortem examination, because of a sudden death. This is the reason why hypertension has earned for itself a nickname “*silent killer*”. Some patients are diagnosed during routine check-ups when they wish to obtain life insurance from companies or when they are about to take up a new job (George, 2011).

The experiences of persons diagnosed with hypertension emerge from within a specific environment.

#### **1.7.1.5 ENVIRONMENT**

*Environment* is defined as a context, milieu, background, physical surrounding or place inhabited by a person or where a patient (person) lives or finds her or himself. It includes “all conditions, circumstances and influences surrounding and affecting the development of behaviour of persons or groups” (George, 2011).

In this study, environment refers to the physical surrounding or place in which the patients or community find themselves. This is the external environment. The internal environment constitutes body, mind and spirit. In the society, adults are expected to be self-directed and responsible for themselves and for the well-being of their dependents. Hypertension patients in Oshana Region form an integral part of this community. They (patients) find themselves in different types of places or environments. Some are staying in traditional villages. Others are staying in squatter settlements, while others stay in the new developing towns of Ongwediva,

Ondangwa and Oshakati. It is in this living milieu where patients are faced with various threats to a healthy life, some of these threats being silent like hypertension (George, 2011).

The health interventions within these environments are mostly done by nurses by means of a process, best described as nursing, thus the next discussion will be on “*nursing*”.

#### **1.7.1.6 NURSING**

Nursing is a learned practical humanistic activity carried out by a person (nurse) for a person (patient). It contains a body of scientific knowledge; it is being practiced as part of a profession and a discipline that is used for the purpose of assisting human beings to maintain maximum health and well-being (George, 2011).

Hypertension patients are treated on two levels, and as such encounter nursing care at two levels, at an in-patient level when a patient is admitted in hospital ward, and an outpatient level, depending on the severity of a hypertension (Aucker and Lilly, 1999). In the context of this study, the nurse and the patient interact mainly on an outpatient level.

### **1.7.2 METHODOLOGICAL ASSUMPTIONS**

The term methodology has its origin from two Greek words, “methodos” and “logos”. When combined, it refers to the study of logic underlying the scientific technique or methods of doing something in a scientific manner. In this context, it refers to the scientific method according to which the researcher will conduct this research study. The researcher believes that the patients should rather become participants and relate their own experiences through a qualitative design and the most applicable method would be by means of a phenomenological approach. This approach entails collecting the “life stories” as data told by the participants themselves. This will enhance the quality of research and ensure the trustworthiness of the findings (Jooste, 2010). This “method” is discussed in more detail in chapter 2. Methodological assumptions, deal with the question on how researchers attain knowledge of interviewees’ experiences about the researched subject, for example in this study the researcher will explore the experiences of patients diagnosed with hypertension in the Oshana Region in northern Namibia. These are assumptions that show how the researcher sees his research design (Jooste. 2010).

Not all applicable terminology and concepts could have been explained as part of the paradigmatic discussion, and some needed to be addressed as part of the operational definitions.

## **1.8 OPERATIONAL DEFINITIONS**

### **Hypertension**

*Hypertension* is generally defined as a condition characterized by a sustained systolic pressure that exceeds 140 mmHg and a sustained diastolic arterial pressure that exceeds 90mmHg (at age 20) 160/95mmHg (at age 50) and 170/ 105 mmHg at age 75 (Waugh and Grant, 2003, p.126).

### **Systolic pressure**

*Systolic pressure* is the maximum arterial pressure that is reached during peak ventricular ejection or during the systole of the heart (Sembulingam and Sembulingam, 2007, p.551).

### **Diastolic pressure**

*Diastolic pressure* is defined as the minimum arterial pressure that occurs just before the beginning of ventricular ejection or during the diastole of the heart (Sembulingam and Sembulingam, 2007, p. 551).

**Lived experiences**

*Lived experiences* refer to how patients observed their life experiences with regard to social life, working life, family life including their sexual lives after they were diagnosed with hypertension. A personal experience has limitations as knowledge of source, because each person's experiences are restricted (Polit, Beck & Hungler, 2002).

**Disability**

*Disability* is also known as functional impairment. It is therefore a state in which a patient (person) cannot use his/her body part properly, e.g. in a cerebro-vascular accident, a patient may lose some functionality of part of the brain and one or more extremities. The speech pattern might also be affected in such a way that it becomes difficult and abnormal (Oxford Advanced Learner's Dictionary of Current English, 2005).

**1.9 SIGNIFICANCE OF THE STUDY**

The term significance to mean one or all of the following terms namely, "justification, contribution of the study, or importance of the study" (De Vos, Strydom, Fouche and Delpont, 2011, p.107).

It is general knowledge that hypertension by itself has been widely researched on in various countries including Namibia. This is evident from the availability of many literature sources found on the library shelves. However, the researcher does not have knowledge of any researched and documented report done in Namibia about “The lived experiences of patients who are diagnosed with hypertension in Oshana Region in northern Namibia”. Therefore he (researcher) wishes to submit that this report, once concluded, will contribute to the body of knowledge of nursing. It will assist in the policy formulation by policy makers in the health sector. It will stimulate debates among other researchers who may wish to explore more on the researched topic in Namibia or in other countries (De Vos, Strydom, Fouche and Delport, 2005).

The findings of this study will be used to develop guidelines for patients (participants) in what they might have experienced during their treatment for hypertension. It could also assist people to understand the experiences of person who are suffering from hypertension (Creswell, 2003).

## **1.10 DIVISION OF CHAPTERS**

The following chapters of this research will be structured as set out below:

Chapter 1: Introduction and background

Chapter 2: Research design and methods

Chapter 3: Discussion of findings

Chapter 4: Conclusions and recommendations.

## **1.11 SUMMARY**

In chapter 1, an orientation to the study was given by introducing the study and stating the problem, purpose, objectives, the meaning of paradigms, explaining various assumptions, defining various terms, and also by motivating the significance of the study. The next chapter, chapter 2, will be on the research designs and methods

## **CHAPTER 2**

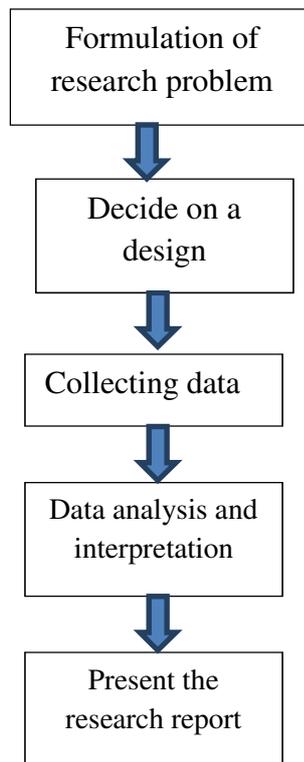
### **RESEARCH DESIGN AND METHODS**

#### **2.1 INTRODUCTION**

In this chapter, the researcher shall explain the research design and method(s) used to conduct this research.

A research design is a research approach of presenting a problem, asking questions, collecting data by answering questions and analyzing the collected data. There are a number of factors that determine what kind of research design would be chosen. Some of these factors are personal training and experiences. In addition, it is indicated that people who like writing would opt for qualitative research, while those who are trained in statistics will choose quantitative research (Creswell, 2003,).

The motivation for selecting the chosen design for this study could best be explained by the flow diagram of Welman, Kruger and Mitchel (2005).



**Figure 2.1: The flow diagram depicting the research process**

(Welman, Kruger and Mitchell, 2005, p.12)

From the flow diagram it follows that the research problem dictates the design and the method to be utilized.

In the context of this research, a qualitative research design is chosen, because this design makes use of a strategy of narratives in which a participant will tell his/her life story about something (Creswell, 2003).

## 2.2 THE RESEARCH DESIGN

A research design is a plan according to which research participants are obtained as well as how information are collected from them (Bless, Higson-Smith and Kagee, 2006). It is also presented as a “series of stages or tasks” of how to plan or conduct a study. A good research design should have components that work harmoniously and promote efficiency and successful goal attainment, but if it lacks this character it will lead to poor operation and failure (Maxwell, 2005). A research design describes what the researcher will do with participants with an aim to reach at the research conclusion and find a solution to the research problem (Welman, Kruger and Mitchell, 2005).

To achieve this “*plan*” a qualitative, descriptive, exploratory and contextual design (method) was used. The researcher will now relate all of these designs/methods to this research study.

The first discussion is on how the researcher interpreted and then utilized the qualitative research design/approach.

The descriptive research method is part of non-experimental research of and it describes, observes and documents aspects of the situation (Polit, Beck and Hungler, 2002, p.180).

### **2.2.1 CHARACTERISTICS OF A QUALITATIVE RESEARCH DESIGN**

Gubrium and Holstein in Elliott (2005), argued that “qualitative research is a diverse enterprise”. This is an apt viewpoint of qualitative research, especially when focusing on the experiences, thoughts, and beliefs of human beings. Quite often the researcher was to be found in close proximity to the participants of the study, also known as the field of the study.

Strieber and Carpenter (1999) explain that field research is a qualitative research approach that explores and describes phenomena in naturalistic settings such as hospitals, clinics and homes. This study described phenomena in the contexts of the participants.

Qualitative research usually begins with a conscious effort where the researcher tries to avoid preconceived ideas. This is called bracketing. The researcher will refer again to bracketing when discussing the methodology of the study. In essence it means the researcher should not have any supposition about the findings. It is also important for the researcher to consider the context in which the study is done. This aspect of the context of the study is also separately discussed (see point 2.2.4).

Dawson (2006) says that qualitative research explores attitudes, behaviour and experiences and attempts to obtain an in-depth view from the participants. This is a phenomenological study as it examines human experiences through the rich and thick descriptions that are derived from participants concerning their life experiences.

The researcher becomes an instrument, meaning that he/she will not use external means but will play a dynamic role in the research activities. In addition the interview should take place in a natural setting, for example, the interview will take place in the participant's house. To ensure the "richest" data, purposive sampling should be used (see point 2.3.2).

Fragmentation should also be avoided and a holistic perspective should be used. There should be a dynamic interaction between the researcher and participants. The goal for using qualitative research is to capture the emic (insider) perspective but not the etic (outsider's) perspectives (Polit and Beck, 2012).

In this research study, participants freely spoke about their lived experiences. The details of the participants' stories about their lived experiences will be described in chapter three (3) of this study.

In addition, Benney and Hughes in Elliott (2005, p.17) suggest that a qualitative interview is not only the "means that is used to assess the worlds, but it is also the object of inquiry". They continued to suggest that an interview is not just a means to collect data, but it is a site of producing data. Over a period of many years, researchers adopted qualitative research as being central to epistemological and methodological discussions about interviews (Elliott, 2005). A qualitative design supported the research design, because it deals with storytelling and not with numbers.

The next discussion will be on the exploratory design.

### **2.2.2 EXPLORATORY RESEARCH DESIGN**

An exploratory design aims at establishing the facts in order to gather new data and to gain new insight into a phenomenon (De Vos, Strydom, Fouche and Delpont, 2005). This view is echoed by Mouton who suggests that an exploratory design seeks to establish a new pattern in the data providing new insights into a phenomenon (Mouton, 2002).

Blaikie (2000) in De Vos, Strydom, Fouche, and Delpont (2011) maintain that exploratory research is conducted to gain insight into a situation, because of lack of information in a researched situation, while Kreuger and Neuman (2006) also in De Vos, Strydom, Fouche and Delpont (2011, p. 95) submitting that “exploratory research may be the first stage in the sequence of study”.

The field of this study aims at examining the participants’ lived experiences by way of doing an in-depth study of the practices, behaviours, beliefs, and attitudes of individuals as they function in real life (Streubert and Carpenter, 1999).

To ensure that the research is exploratory, a phenomenological individual interview was conducted to get a better and deeper understanding in the participants’ life stories they will tell about their lived experiences after their hypertension diagnoses. The researcher will discuss this part, namely the individual phenomenological interviews, as part of the methodology under point 2.3.1.

### **2.2.3 A DESCRIPTIVE RESEARCH DESIGN**

A descriptive research design gives a picture of a specific situation, such as a social setting. Its focus is on finding answers to the “how” and “why” questions. The researcher has an interest in the process, meaning and understanding of raw materials that are obtained from the qualitative study and starts with a well-defined subject and tries to describe it accurately. A descriptive research design has both basic and applied research goals and can be either quantitative or qualitative in nature (De Vos, Strydom, Fouche and Delpont, 2005). In this study, as had been explained earlier, the goals were qualitative in nature. According to Rubin and Babi (2001) in De Vos, Strydom, Fouche and Delpont (2005, p.106) “descriptive research is more likely referring to a more intense examination of phenomena and their deeper meaning”. It leads to a greater description of a subject and fits well to be applied as a strategy in a qualitative research study, like this one.

In this research study the researcher was to describe the lived experiences of patients who are diagnosed with hypertension in the Oshana region in northern Namibia. The participants described their life stories and this supported the descriptive design characteristics expected from qualitative research. As this study focused on a specific group of people in a very specific context, the next discussion will be on how a contextual design was positioned within this study.

#### **2.2.4 A CONTEXTUAL RESEARCH DESIGN**

Valle, King and Halling (1989) in Welman, Kruger and Mitchel, (2005, p. 191) compared the human beings and their world as follows:

*“In the truest sense, the person is viewed as having no existence apart from the world and the world as having no existence apart from persons. Each individual and his or her world are said to co-constitute one another.”* Simply stated, it means that the person derives his or her meaning from the world where he/she lives. This world is called the “life-world” of the person. Phenomenologists, when using the term “life-world”, refer to the world as lived by persons. The person depends on his/her world, the context in which he/she experiences his/her day-to-day living. Phenomenologists believe that a person’s behaviour and experiences cannot be understood by researchers without appreciating the context in which he/she lives (Welman, Kruger and Mitchel, 2005).

In this research, the lived experiences of patients were explored and described within the context in which the participants live. This indicated that participants were interviewed in their context.

### **2.3 THE RESEARCH METHOD**

The research method that was used in this study was unstructured interviews through which participants were interviewed by the researcher. A phenomenological

approach, as explained in the next paragraph, was followed in this research study. The researcher used the life stories gained from the participants' storytelling. They (participants) were interviewed about their real life experiences (Creswell, 2003).

### **2.3.1 A PHENOMENOLOGICAL APPROACH**

A phenomenology is a qualitative research approach that studies phenomena. These phenomena may have influences in nursing. Researchers who use this approach describe experiences as they are lived. This is referred to as lived experiences in phenomenological terms (Fain, 1999).

De Vos, Strydom, Fauche and Delport (2011) wrote that the life world refers to the conscious experience of the person's everyday life. They describe what the life world consist of and that the world gets its form and meaning from the structures of experience.

Corin and Lauzanin Liamputtong and Ezzy (2007) indicated that they use phenomenological theory or approach to study experiences of sufferers of schizophrenic mental patients. They conducted open-ended interviews, focused on the social construction of the life-world of participants (Liamputtong and Ezzy, 2007).

In this research study, the researcher used in-depth interviews to ask participants about their lived experiences about living with hypertension as a disease. The tool

was thus an interview guide, consisting of an open ended central question. The researcher focused on the life story-telling of participants by asking them to narrate their lived experiences within their life world, meaning that he, the researcher, went to the homesteads of the participants and interviewed them in their real context.

The central question was asked:

*“Tell me about your experiences since you were diagnosed with hypertension and have started to take the medicines for the treatment of hypertension?”*

The researcher, being a registered nurse and familiar with possible side effects of hypertension treatment, made a conscious effort to be objective and open to the narratives of the participants and brackets his own thoughts and beliefs. Bracketing means to suspend all subjective ideas and pre-knowledge of the researcher by withholding them and by so doing it prevents interference with trustworthiness by the researcher’s pre-knowledge and ideas (Denzin and Lincoln, 2005).

## **2.3.2 POPULATION AND SAMPLE**

### **2.3.2.1 POPULATION**

Population is defined as an entire set of objects or people which are the focal point of the research about which the researcher wants to determine some characteristics (Bless, Higson-Smith and Kagee, 2006, p.98).

In this study the population refers to all patients who were diagnosed with hypertension in the Oshakati health district as identified at the hypertension clinic, who also get their treatment at this clinic. The number of confirmed diagnose of hypertension cases in Oshana Region was about three thousand in total at the end of the year 2009 (Polit, Beck and Hungler, 2002).

### **2.3.2.2 THE CHARACTERISTICS OF MEMBERS OF POPULATION**

The characteristics of the members of the population are as follows: They were men and women who were mostly subsistent farmers. Although some of them might have been employed or self employed by selling “kapana” or some kind of alcohol from their shebeens, or selling meat at the Oshakati open market or elsewhere, a significant number of them were without formal salaried employment. They belonged to the same culture and spoke the same language (Oshiwambo) that is made up by about seven different dialects. Their staple food is “omahangu” (type of grain products). Almost every adult participant had his/her own field from where

“omahangu” is produced. Most of them lived in the rural area. The younger members of the sample are leaving in the peri-urban settlements around the towns of Oshakati, Ongwediva, and Ondangwa or they stayed in these developing towns, in search of employment.

### **2.3.2.3 SAMPLING AND SAMPLE**

#### **SAMPLING**

Sampling is a process of selecting a portion of the population called a sample, to represent the entire population in a research study. A sample is a subset of the population. The population and sample is made up of the societal elements. This means that the population and the sample were all from the same society. In nursing research, like this one, elements are patients who were diagnosed with hypertension in the Oshana Region (Polit, Beck and Hungler, 2002; De Vos, Strydom, Fouche, and Delport, 2011).

Bless, Higson-Smith and Kagee (2006) suggest that sampling is a process of selecting or choosing the whole set of objects or people that is the focus of the research. This set of objects or people should possess similar properties or characteristics to the population. In this study all the participants (objects or people) were afflicted by the same health disorder namely hypertension.

Sampling is classified in two main types, namely probability sampling and non-probability sampling (Bless, Higson-Smith and Kagee, 2006).

In this study non-probability sampling was used. Non-probability sampling includes accidental or availability sampling, purposive or judgmental sampling and quota sampling (Bless, Higson-Smith and Kagee, 2006; De Vos, Strydom, Fouche, and Delpont, 2011). In this study the approach used was also *purposive sampling*.

According to Welman, Kruger and Mitchel (2005) purposive sampling is the most important type of non-probability sampling. Purposive sampling does not only depend on the availability and willingness of the participants to take part in the interview, but they (participants) must also be typical of the population (Blanche, Durrheim and Painter, 2006). Creswell and Clark (2007) agree with these definitions of purposeful sampling, and continue to suggest that in purposeful sampling the researcher selects participants who have experienced of the phenomenon or concept that is being explored.

As mentioned earlier, sampling was thus based entirely on the judgment of the researcher, as the sample was composed of objects or participants who possessed the desired characteristics that represented the population's attributes (De Vos, Strydom, Fouche, and Delpont 2011). The researcher purposeful selected participants who had certain attributes, to be included in the study (Burns and Grove, 2001). This purposeful selected group of participants will be discussed next as the "*sample*".

## **SAMPLE**

A sample is defined as a subset or sub-unit of the whole population which is the focus of the research to be conducted (De Vos, Strydom, Fouche, and Delport, 20113).

In this study, a sample referred to the “*purposeful selected group*”. This sample had similar characteristics of the main population. This is in line with the description by Bless, Higson-Smith and Kagee (2006), who submit that a sample should have similar characteristics with the main group.

In this study, the researcher specifically investigated the lived experiences of patients who were diagnosed with hypertension in the Oshana Region and a *minimum* of ten patients were purposefully selected. The number of participants to be included was from the beginning also determined by the point at which saturation of data was achieved, implying that if saturation had not been achieved after ten interviews, additional participants were then had to be selected. This is in line with the viewpoints of Mcnee and McCabe (2009) who wrote that the sample size is dictated when data saturation is reached, in other words, when further information becomes redundant.

The selection process was executed by first contacting the registered nurse in charge of the hypertension clinic in the Oshakati Intermediate Hospital and through her the researcher made an appointment with the entire population of hypertension patients

who were at the clinic for follow up on a specific date and time. At the clinic, the researcher (wearing a nurse's uniform), because he is also a registered nurse, met the patients, introduced himself and showed them all the official permission letters. He then addressed them (participants) about the research study he was about to conduct and requested if there was any patient who could volunteer to serve as an interviewee or a participant. He then selected the ten most "*typical*" participants. They were five females and five males of different ages, between 29 years and 77 years.

The set criteria were that they should have been on treatment for hypertension for at least two or more years. This was done in order to get saturated and diversified stories about the lived experiences of different participants as told by them (Bridget and Lewin, 2005).

The next step was for the researcher to take down the contact details of each volunteer participant for further use when the researcher needed to contact them later for actual unstructured interviews. The villages in which the ten participants lived were in about a 20 km radius from Oshakati Intermediate Hospital and were easily accessible by a sedan car.

#### **2.3.2.4 THE FIELD OF RESEARCH**

The field of research is defined as a natural place or environment where participants are living and it is where the participants will be found by the researcher to be interviewed. This field is dynamic, because it can change from place to place. What

is very important here is that the field reminds the researcher and the reader that it is the experiences of participants in a particular and specific place. It is a lived space or place and may be given as a bounded space which can be entered and observed by a researcher (Latimer, 2003).

In this study the field of research was a space “lived” by patients (participants). The space here referred to the individual houses of participants and work places of participants where the researcher went to interview the participants. At this “space” of the participants, the researcher was welcomed as was evidenced by the level of trust and respect shown by participants (Welma, Kruger and Mitchell, 2005).

### **2.3.2.5 DATA COLLECTION**

#### **2.3.2.5.1 THE INDIVIDUAL INTERVIEWS**

This discussion is an extension of point 2.3.1 on the phenomenological approach, which was presented as part of the research method. The researcher did this by writing verbatim notes (that is in real words of participants) in the note book that he had prepared for this purpose. There will be a little bit of overlap, but the researcher will position all information, new and repeated, in context.

It was also necessary to ensure cooperation between the participants and the researcher during the process of actual data collection. This was done by talking to the prospective participants as early as during the initial contact in the hypertension clinic. Cooperation was achieved as they were voluntarily giving their contact

details. They also agreed that the researcher would be welcome to frequent their homes or their stations of work when he had to go for actual data collection.

Before initiating the data collection, the researcher once again, just as with the purposive selection of the sample, gave an explanation to the participants on the reasons for conducting this research. This aspect is discussed in more detail under “*Ethical considerations*” (see point 2.5).

One main open-ended question was then asked by the researcher:

*“Tell me how it is with you since you were diagnosed with hypertension and have started taking hypertension medicines?”*

The participants’ responses would determine whether a probing question should be asked for more clarification of their experiences or not. Bergman and Coxon (2005) suggested that the quality of data collected is divided into the quality of the instrument or method of data collection and data obtained from the instrument. In this study, if the researcher deemed that the quality of the data needed to be enhanced or clarified, he resorted to more probing or reflecting questions. Periods of silence were also employed to allow the participants to elaborate, if possible, on their narratives.

According to Moore (2001), it is ideal for the interview session with individuals to last for half an hour to one hour, depending on how much information the participant

has to tell. The length of time for an interview that was used by this researcher with each one of the ten participants was more or less one hour.

#### **2.3.2.5.2 FIELD NOTES**

The researcher was also interested in data other than the verbal narratives; therefore he took field notes during the process of data collection. The field notes were treated as valuable materials, because they would be used as sources of information for the analysis of the collected data. In this research, observations were made by the researcher to determine what participants were doing by way of their non-verbal communication. While taking field notes it remained a responsibility of the researcher to keep the participant at ease with him/her to tell his/her story freely. De Vos, Strydom, Fouche and Delpont (2005) suggest that an assistant facilitator could help the researcher to take detailed field notes if he/she is available (De Vos, Strydom, Fouche and Delpont, 2005, p. 331). In this research study, the researcher worked alone.

Schatzman and Strauss in Wilson (1989) indicated some strategies for the recording of field notes. The researcher incorporated some of their strategies namely:

- By keeping observational notes while watching and listening. They contained the *who, what, where and how* of the situation.
- By keeping theoretical notes in an attempt to derive meaning from the observational notes. Here the researcher utilized these notes to interpret and

infer, where possible when certain narratives needed additional member checking.

- By keeping methodological notes in order for the researcher's instruction to himself and to remind himself that he is involved with a qualitative approach.
- By keeping personal notes, which are described as notes about the researcher's own reactions, reflections and experiences. In this case, the researcher was aware that he should become a respondent and to reflect inwardly, and where necessary, apply the principles of bracketing.

As an extension of his personal notes, the researcher also consulted the participants' health passports, and added these findings of the health passports to his personal notes. A health passport is a legal document that is provided by the Namibian health facilities (clinics, health centres and hospitals). It carries the patient's personal details and it is used by the Namibian health workers (doctors, nurses and pharmacists) to enter their findings after they have examined or investigated the patient. It is also on this document doctors, nurses, and other health workers write down the prescriptions for patients. This document has to be carried by a patient every time he / she visit the health facility. It provided additional information when certain negative experiences regarding the treatment were conveyed by the participants.

The next discussion will be on the data analysis process that was followed.

### 2.3.2.6 DATA ANALYSIS

Data analysis is determined by the purpose of the research and should occur simultaneously with preliminary data collection. Leaving the information to pile up makes analysis difficult and discouraging (Willis, 2008). Thus it is a process of reducing, organizing and giving meaning to the information or collected data (Burns and Groove, 2009).

Once the data in this study were collected, it was transcribed. The data transcription process is part of data analysis. It is recommended that it is better for researchers to do some of the data transcription themselves, and this recommendation was followed by the researcher. The researcher then had to translate it from Oshiwambo into English.

When transcribing data, it must also include the non-verbal (non-vocal) details (Hardy and Bryman, 2004). This principle was also applied by the researcher and he utilized his field notes for this aspect.

Once the researcher had completed the transcribing and translation, he applied Tesch's eight step method of data analysis (Creswell 2003, p.192; Roberts, 2004, pp.143 – 144). The steps that were followed were:

- Read through the transcripts and make notes as they come to mind.

- Pick the shortest or most interesting interview and find the underlying meaning. Write the notes in the margin. Follow this procedure for a few participants. Make a list of all the topics which arise and cluster similar topics together.
- Arrange the topics in columns of major topics, unique topics and leftovers.
- Give these topics codes and write the codes next to the appropriate segment of the text and see if new categories and codes emerge.
- Find the most descriptive words for the topics and turn them into categories. Try to reduce the total list of categories by grouping topics that relate together.
- Make a decision on the abbreviation of categories and alphabetize these codes.
- Bring the data material belonging to each category together in one place and perform a preliminary analysis.
- Re-code the data if necessary.

In this research study, the collected data were studied in depth by the researcher, while trying to seek for general statements with relationship and put them together in categories and sub – categories (De Vos, Strydom, Fouche and Delport, 2005).

For the validity of the data to be achieved, the transcription of the data by the researcher and the analysis were checked by an independent coder in consultation with the study supervisor. The independent coder was well acquainted with the spoken language of the participants, because the participants' statements had to be recorded verbatim and the researcher had to transcribe them as such into English. This enabled the researcher to produce more specifically qualitative findings. This

study did not pose a problem about the language barrier for the co-coder, because the data are transcribed into English from a vernacular language (Oshiwambo) which is also a language spoken by the independent coder. The study supervisor, researcher and independent coder met for a consensus discussion regarding identified the main categories and sub - categories in the context of this research study (Creswell, 2003, p.193; Basit, 2003, p.143-154).

No computer coding was used in this research.

#### **2.3.2.7 LITERATURE CONTROL**

The results of the research were checked against the existing literature on the highlighted categories and sub-categories. This was done to show the reader how this study supplemented work that had been done on similar topics. In this study the literature control was also done to verify the results of lived experiences of patients who were diagnosed with hypertension. The researcher's aim was to build a body of knowledge on the topic and also to enable the reader to gain further insight into the purpose of the study.

This literature control also provided a framework for the research problem in a sense that it explored the field under investigation. With this exploration the researcher discovered that not much is known or written about the topic under study. The researcher was therefore also trying to explore more about the topic, namely "the

lived experiences of patients who are diagnosed with hypertension in Oshana Region in northern Namibia” (Creswell, 2009).

## **2.4 TRUSTWORTHINESS**

Qualitative researchers usually use the term rigor when they describe the desirable characteristics and the appropriateness of the method used to address the question. Rigor refers to adherence to high standards such as adequacy and solidity of the research design. Morse and colleagues submitted that without rigor, the research will be worthless (Tappen, 2011, p. 153).

In qualitative research, some researchers use terms such as reliability and validity when they define rigor. However, it was Lincoln and Guba (1985) who proposed that the description of trustworthiness in qualitative research would be clearer if researchers use the following four criteria, namely, credibility, transferability, dependability, and conformability (Tappen, 2011, p.153).

Polit, Beck and Hungler (2002, p.473), in their agreement with Lincoln and Guba’s description of trustworthiness, define “trustworthiness as a term used in the evaluation of qualitative data, by using four criteria, namely, credibility, dependability, conformability and transferability”. Linchon and Guba (1985) in Polit, Beck and Hungler (2002), describe the four terms as shown in table 2.1 below and their description will follow later.

**Table 2.1: A schematic presentation of the strategies of establishing trustworthiness with their criteria and the implementation in the study**

<b>Strategy</b>	<b>Criteria</b>	<b>Implementation</b>
Truth value (Credibility)	<ul style="list-style-type: none"> <li>• Prolonged engagement</li> </ul>	<ul style="list-style-type: none"> <li>• Time was allowed to become acquainted and to gain trusting relationship with the participants.</li> </ul>
	<ul style="list-style-type: none"> <li>• Reflexivity</li> </ul>	<ul style="list-style-type: none"> <li>• Field notes were taken.</li> <li>• Researcher took part in the research and was not just an observer.</li> </ul>
	<ul style="list-style-type: none"> <li>• Time sampling</li> </ul>	<ul style="list-style-type: none"> <li>• The interview was preceded by a non-recorded settling down time where the nature and purpose of the study was explained.</li> <li>• A couple of months were needed in preparing for the research.</li> </ul>
	<ul style="list-style-type: none"> <li>• Member checking</li> </ul>	<ul style="list-style-type: none"> <li>• Participants were involved to ensure that things are true to their experiences.</li> <li>• A follow up interview was done with one participant.</li> </ul>

Applicability (Transferability)	<ul style="list-style-type: none"> <li>• Dense description</li> </ul>	<ul style="list-style-type: none"> <li>• A demographic description of participants was done.</li> </ul>
(Dependability) Consistency	<ul style="list-style-type: none"> <li>• Dense description</li> </ul>	<ul style="list-style-type: none"> <li>• A full description of the collected data analysis method was provided in order for other researchers to trace the method utilized.</li> </ul>
(Objectivity) Conformability	<ul style="list-style-type: none"> <li>• Audit trail and audit process</li> </ul>	<ul style="list-style-type: none"> <li>• The research committee of the Faculty of Medical and Health Sciences assessed the proposal and research process.</li> </ul>

The next discussion will be on the four mentioned criteria.

#### **2.4.1 CREDIBILITY**

Credibility is equivalent to external validity in quantitative research. Trustworthiness is a concern to the reader of the research report. Trustworthiness persuades other researchers that the findings are true and worth paying attention to. The report has to be credible, dependable, conformable and transferable (Tappen, 2011, p.153).

Meyrick (2006) in Tappen (2011, p.155), tried to put these views together into two principles, namely transparency and systematicity. Transparency means that the report research should be clearly described. Systematicity is explained to mean the research report should be well articulated and they should be a logic connection

between the purpose of study and the method used to conduct research (Tappen, 2011, p.155).

Credibility is established through the following sub-criteria:

- **Prolonged engagement and persistent observation**

The description of research data collection should be thick and full of information. Limited information that lacks depth or detail will result in limited understanding. The amount of information is expected to be extensive. To achieve saturation of information through prolonged engagement may need simple repetition of previously heard stories. Trustworthiness can be addressed through several ways, such as:

- The individual interview is more in-depth;
- Maintenance of an audit trail; and
- Verification of findings with participants (Tappen, 2011,).

In this study the researcher adhered to all of the above mentioned principles.

- **Member checking**

This is an interesting approach to establish credibility of findings of qualitative research. Members are participants and members of the culture in which the research is being conducted. It is therefore very important to reassure participants once more

at this point again. Other researchers refer to member checking as respondent validation (Maxwell, 2005). This is a systematic soliciting of feedback about the researcher's collected data and conclusion from the people under study (Tappen, 2011).

The researcher also adhered to the above principles, by having gone back to some of the participants to check for the worthiness of the collected data.

- **Peer debriefing**

Peer debriefing seeks evaluative feedback of the study feedback, while member checking was sought from the participant based on their experiences. In peer debriefing feedback is sought from individuals with expertise in the subject and methodology or the study. In this research, peer debriefing was sought from colleagues who are more experienced in this type study, but outside the context.

An example is that the research proposal was checked by the members of the Faculty of Health Sciences Research Committee prior to the commencement of data collection as well as by other colleagues within the faculty including the independent co-coder who is also a registered nurse like the researcher, during the research report writing (Tappen, 2011, pp.157-158).

### **2.4.2 TRANSFERABILITY**

This criterion is equivalent to external validity in quantitative research. It refers to applicability; therefore it tries to seek the possibility of the findings whether they are applicable or transferable to other situations. Qualitative research is not aiming at making generalizations like in quantitative research. It is meant for describing a phenomenon and see whether there is ability for a connection between their findings with those of other researchers (Tappen, 2011).

The researcher provided a thorough description of the research followed for prospective different researchers to try and transfer these findings to another context.

### **2.4.3 DEPENDABILITY**

Comparing qualitative research to qualitative research, dependability is equivalent to reliability. According to Lincoln and Guba (1985) in Tappen, (2011) an audit trail should be created during the study of research.

The researcher provided detailed data to be used during an audit trail. A knowledgeable outside individual can also be brought in to review the materials and attest to them.

A detailed description of all activities in which the researcher took part during the study to make this process more transparent, is also included.

#### **2.4.4 CONFIRMABILITY**

Confirmability in qualitative research relates to objectivity in quantitative research. This criterion is very difficult to be achieved in full in qualitative research as well as in quantitative research. Confirmability is viewed to be irrelevant in phenomenological studies. As the study continues the researcher dealt with recording personal experiences and feelings (Tappen, 2011, p.161).

#### **2.5 ETHICAL CONSIDERATIONS**

Ethical considerations are very important aspects in research just like in any other field of human activity. Certain ethical issues that might be concerned with are plagiarism and honesty in reporting of results in all research. The principles of research ethics are universal and they concern “issues of honesty and respect for the rights of individuals” (Welman, Kruger and Mitchell, 2005).

Ethical considerations are responsibilities of researchers to interviewees. Consent and confidentiality is core principles that researchers need to clearly inform participants about, before the interview starts, for them (participants) to feel that their privacy is well protected (Green and Thorogood, 2004).

The researcher used an informed consent after he gave clear information to the participants before the beginning of the data collection and participants volunteered freely to be involved in the research.

Other authors such as Reilly and Obermann (1999, p.305) define ethical consideration as “standards of conducts or “right” behaviour based on moral judgments”. It involves morality, informed decision-making and freedom of making choices.

Anonymity (no participant’s name will be revealed in the research report) and confidentiality (“privacy”) were assured and participants volunteered to participate in the research study by being interviewed. They (participants) were also informed that they could withdraw from participation at any point during or even before the interview starts (De Vos, Strydom, Fouche and Delport, 2005, p.170; Boynton, 2005, p.101).

According to Macnee and MacCabe (2008, p.151), anonymity means that no one’s name (both participant and researcher) can be linked to the study data from a particular individual to that individual. These authors continue to define confidentiality by stating that although “a researcher knows the identity of the participants, it must be ensured that neither the identities of participants nor information that participants provide will be revealed to anyone.”

For this study, the researcher obtained permission from the University of Namibia (Faculty of Health Sciences), the Ministry of Health and Social Services, the Director for Oshana Health Region Directorate, the person in charge of the hypertension clinic and all ten participants gave their verbal permission after the researcher explained the research and its aim to them.

## **2.6 SUMMARY**

In this chapter, the method of the study was explained. The researcher also attempted to explain the following research designs; namely qualitative design, exploratory research design, descriptive research design as well as contextual research design. Population, sampling and a sample and its characteristics, trustworthiness and its criteria were summarized. The researcher also gave a picture about data collection and data analysis processes. Ethical principles were considered and adhered to by the researcher.

The next chapter will be on the discussion of data analysis and the findings.

## CHAPTER 3

### DATA ANALYSIS AND DISCUSSION OF THE FINDINGS

#### 3.1 INTRODUCTION

In chapter two (2), the research design and methods were described. The purpose of chapter three (3), is to analyse the collected data and to describe the findings and results with regard to the lived experiences of the participants (patients) diagnosed with hypertension in the Oshana Region in Northern Namibia will be discussed.

The findings that will be discussed in this chapter are obtained from the participants who live in the Oshana Region, one of the regions of the greater Namibia, because the participants and researcher live and work in the same region.

*The researcher decided to present the findings together with the integration of the literature control, and not to divide these two activities. The motivation was to prevent, if possible, the loss of the story line*

The preliminary data analysis occurred simultaneously with the data collection, because the moment the researcher began listening to the descriptions of a particular phenomenon by a participant, analysis occurred. Qualitative data analysis is a challenging activity, because it is labour-intensive and requires creativity, hard work and conceptual sensitivity from the researcher. This means that the researcher should be focused in order to properly organize, read, re-read, reduce, provide structure to

and elicit meaning from the data (Polit and Beck, 2012). Welman, Kruger and Mitchell (2005) define this as secondary data analysis.

The researcher provided the above general discussion as a sort of confirmation of the similarities that were also found in this study.

The overall aim of this chapter was to reduce the findings and condense them into “*summaries or descriptions of meanings*” [own interpretation]. Some researchers called this the creation of major themes and sub-themes. In this research study, the researcher did “unpack” the findings into major categories and sub-categories for discussion (Blanche, Durrheim and Painter, 2006).

Silverman (2006, p.280) suggests that researchers must avoid jumping to easy conclusions and should strive for critical rationalism; it is only then that researchers can be in a position to speak about objective knowledge of participants’ experiences. In this research, participants used the opportunity to tell their living experiences while the researcher played a role of recording field notes, observed and noted non-verbal gestures done by participants that he/she would have to include in his/her data analysis.

The discussion of findings is a section of the research report where the findings are summarized. This part of the study is aiming at explaining or exploring the phenomena. In a qualitative study, like this one, the researcher tried to approach knowledge development with an expectation to increase the understanding of the

phenomenon. Qualitative data analysis is therefore aiming at describing and explaining the findings of the study. The knowledge gained from the description would assist in the understanding of the phenomenon being studied (Macnee and MacCabe, 2008, p.69).

From the interviews and observations done by the researcher and discussions held between the researcher and the participants, some substantive categories and sub-categories emerged. Substantive categories are descriptive in nature and include descriptions of participants' beliefs and experiences (Maxwell, 2005, pp.97-98; Polit and Beck, 2012, p.558).

The categories and sub-categories that are displayed in table 3.1 are substantive (emic) categories, because they were taken from the participants' stories or experiences.

The researcher regarded it as necessary to enlighten the reader on his viewpoint(s) regarding the meaning(s) of categories and sub-categories, therefore the definitions to follow in point 3.2.

### **3.2 THE DEFINITIONS OF A CATEGORY AND SUB-CATEGORY**

A category is a unit of information that entails events, happenings and instances. A main or key category possesses the power that is needed to explain the largest degree of variance behaviour and helps to integrate or tighten a theory. A sub-category is a

sub-unit of a key category containing information that is related to the major category (Sarantakos, 2005). Major categories and sub-categories are displayed in table 3.1 below.

**Table 3.1 Major categories and sub-categories**

<b>Major categories</b>	<b>Sub-categories</b>
1. Experiencing varying degrees of comprehension of the disease process	No –sub-category
2. Positive and negative experiences regarding the treatment	2.1 Experiences of beneficial effects of medicines(drugs) 2.2 Experiences of negative effects of medicines(drugs)
3. Experiences of inadequate information sharing by health care workers	3.1 Lack of information regarding possible sexual dysfunction. 3.2 Lack of information regarding the type of foods to eat or types of drinks to consume.

### **3.3 DISCUSSION OF CATEGORIES AND SUB-CATEGORIES**

Each sub-category was discussed and verified with direct quotations from the interviews that were held with participants. Relevant literature control was cited to support the findings of the study.

#### **3.3.1 CATEGORY ONE: EXPERIENCING VARYING DEGREES OF COMPREHENSION OF THE DISEASE PROCESS**

In this category it was not possible to distinguish between possible sub-categories. Participants were asked by the researcher to relate their experiences after they had been diagnosed and put on treatment for hypertension for various lengths of time. From the data it emerged that not all of them appeared to have an optimum knowledge base, and that this could be a disempowering aspect, but with probing, and especially clarifying questions, it became evident that there exists some understanding, although varying degrees of comprehension were noted.

A regular clarification that was asked was:

*“Tell me how you understand hypertension and what you mean when you say you are being treated for it?”*

Although their responses were different and sometimes contradicting, some of them could focus on the main organ(s) affected, or the effects/consequences on life in general.

The following statements were evident to this:

*“The disease of high blood pressure is not understood by me, but I heard that it is a disease for life”;*

*“Omukithi gwethindakano lyombinzi lya londa kandi gu uvite ko ihe onda uva ngaa kutya ogwo omuzalo gwonkalamwenyo”*

A similar comment was made by another participant:

*“I understand that it is an incurable disease”;*

*“Ondi uvite ko kutya omukithi ihaagu aluka”.*

The concept of hypertension being a chronic disease is emerging from this quotation. If participants acknowledge this fact, then adherence to treatment protocols and guidelines become easier.

Physiologically, blood pressure is determined by factors such as cardiac contractility, heart rate, blood volume, peripheral resistance, elasticity of the smooth muscles of arteries. All these factors escalate over years, and creating a chronic condition, that requires lifelong intervention(s) (Lehne, 2007).

Some of the participants were a bit more specific and one mentioned at least one organ system that could be involved.

*O, (laughing), maybe it is a disease that affects both lungs and heart”.*

*“O (ta yolo) “ngiika omukithi hagu kwata omapunga nomutima”.*

With further data analysis, it also became evident that some participants were not totally unfamiliar with the possible consequences of untreated hypertension. One participant referred to two severe complications. He had this frame of reference:

*“Yes, I understand that hypertension is a disease of the heart and blood vessels. It can kill and disables people suddenly if not treated”.*

*“Eeno, ondi uvite ko kutya ethindakano lya londa olyo omukithi gwomutima noonkandjambinzi,hagu dhipaga noku lemaneka aantu ombaadhilila ngele inagu pangwa”.*

Similar comments were also made by the following two participants:

*“Oh, yes (smiling while looking down) I know that it is a very dangerous disease that kills suddenly.”*

*“Eeno o! (ti imemeha ye a tala pevi)ondi shi shi kutya omukithi gwa nika oshiponga, hagu dhipaga mbala.”*

*“Not really, all I have heard is that it can kill and paralyses people.*

*“Hanaanaa, ashike shoka nda uva ohagu dhipaga noku lemaneka aantu”.*

Acute myocardial infarction and a stroke are both complications of hypertension and can lead to a sudden death (Daniels, Grendel and Wilkins, 2010).

One participant could provide more detailed information:

*“It is a disease of the heart and blood vessels when they are not functioning properly; the heart becomes tired and fails to function normally. The blood vessels somehow malfunction that they cannot do their functions properly”.*

*“Omukithi gwomutima tagu ehama noonkandjambinzi itaadhi longo nawa; omutima otagu loloka nomithipa dhombinzi dhi na epuko, onkene itadhi longo nawa”*

The comments of the above quoted participant were relevant if compared to the writings of Daniels, Grendel and Wilkins (2010, p.680). They indicate that the patho-physiology of hypertension involves a number of physiological changes for example the thickening of arterial walls, loss of arterial elasticity which leads to an increase in resistance to blood flow in arteries and hypertrophy of left ventricle of the heart. All these changes lead to increased blood pressure as well as to myocardial infarct and sometimes to stroke.

The concept of mind and body interaction was also not unfamiliar to everyone.

Some of the participants could even make a psychosocial connection:

*“Yes, now I understand that hypertension is a stressful mind”.*

*“Ee, ngashingeyi, ondi uviteko kutya ethindakano lya londa, omadhiladhilo ga ponda”.*

The constant exposure to stress could initiate the stimulation of the sympathetic nervous system and subsequent adrenaline and nor- adrenaline release. All of these released chemicals - they are hormones and neurotransmitters - could then cause vasoconstriction and therefore an increase in systemic blood pressure (Smeltzer et.al. 2010).

Some participants were aware of some of the signs and symptoms of hypertension.

One participant had this comment:

*“Yes, now I understand that hypertension is headache, dizziness and tiredness”.*

*“Ee,ngashingeyi ondi uvite ko kutya ethindakano lya londa olyo omutse tagu ehama, oshitelele nomvulwe”.*

Generally, hypertension is a silent disease, because its signs and symptoms manifest at a later stage when some damage of some target organs might have occurred already. However, some patients may complain about the following symptoms; altered vision or speech, dizziness, weakness, sudden fall, and temporally or permanent paralysis such as hemiplegia (Lehne, 2007).

The first major category provided evidence of some knowledge about hypertension with varying degrees of understanding between participants.

The next discussion will be on the second major category.

### **3.3.2 MAJOR CATEGORY 2: POSITIVE AND NEGATIVE EXPERIENCES REGARDING THE TREATMENT FOR HYPERTENSION**

In the discussion of this category, the term *medicine* and *drug* will be used as if synonymous. In the literature a drug relates to the active ingredients and medicine indicate the format of administration (Dreyer, 2007). This decision was based in part also on how the participants narrated their experiences.

During the data analysis the emerging findings relate more to experiences regarding medicines. Under this major category it was found that participants experienced both positive and negative effects regarding the treatment. As indicated under the sub-categories of this major category, participants indicated that they experienced both beneficial effects of medicines as well as negative effects.

The overall research question specifically included referral to “... *experiences regarding treatment,*” as well.

The aim of treating hypertension is to decrease the blood pressure to an acceptable level at an average blood pressure of about 120/80 mmHg or close to it. For this, a variety of drugs are used. By so doing, unnecessary complications or secondary hypertension is prevented.

Various statements, ranged from beneficial effects or experiences to those that are negative. It is a well-known fact that medicines that are used to treat patients in general, including those used to treat hypertension, have various effects. Some are beneficial effects or good and others are negative or bad effects. The beneficial or good/effects (experiences) are due the fact that symptoms are either minimized or relieved. The beneficial experiences are the desired effects of medicines and they are called sometimes therapeutic effects.

However, some participants experienced negative effects (bad experiences) resulting from the treatment regime. These negative effects or bad experiences are uncomfortable and undesirable effects for the participants. These are called adverse effects or side effects of medicines used to treat patients (Dreyer, 2007).

The following discussion will be on the first sub-category.

### **Sub-category 2.1: Experiences of beneficial effects of medicines (drugs)**

While some participants experienced some uncomfortable effects due to the use of medicines, others expressed their beneficial effects of treatments. The following quotations were mentioned as evidences.

*“Dizziness was gone. The medicines made me to feel stronger and healthier”.*

*“Oshitelele osha ya. Omiti odha koleka ndje noku uvitha ndje ndi na uundjolowele”.*

A similar experience was provided by another participant:

*“Headache and dizziness are gone and I am not experiencing tiredness anymore”.*

*“Uwehame womutse noshitelele oya ya nomvulwe kandi yi uvite we.”*

In support of the participants’ statements, the literature indicates that some of the antihypertensive medicines that are used to treat hypertension improve the patient’s condition for the better. They are used as body fluid volume reducers (diuretics) and to reduce extracellular fluid volume by increasing urine output followed by reduced blood volume and reduced blood pressure. Reduced blood pressure decreases headaches and dizziness which enables the participant to experience a sense of wellbeing (Dreyer, 2007).

The next quotations were evident to this:

*“Headache and dizziness are gone and I am not experiencing weakness or tiredness anymore.”*

*“Omutse noshitelele oya mwena. Omvulwe neloloko kandi yi uvite we.”*

Based on the beneficial experiences as expressed by some participants, such as *“the medicines made me feel stronger and healthier,”* this improvement might boost the participants’ wellbeing and motivate their adherence to their drug treatment.

The next discussion will be on the negative effects of the medicines taken.

### **Sub-category 2.2: Experiences of negative effects of medicines**

Apart from the beneficial effects that were experienced by participants as indicated earlier in the previous sub-category, participants also experienced various negative effects that were caused by antihypertensive medicines / drugs (See quotations below).

Although these drugs are life savers, they do have some side effects. These side effects in this study are also referred to as negative experiences. Quite often, it is these side effects which lead to a non-adherence to treatment. The literature indicated that adherence is difficult to achieve, because in hypertension symptoms are usually absent. This makes it difficult to convince the patient that he/she is ill and needs treatment. Also, antihypertensive medicines can cause many undesirable side effects, such as sedation, drowsiness, weakness, hypotension and or sexual dysfunction. No patient will enjoy these effects and they may encourage non-adherence (Lehne, 2007).

The following narratives are some examples of the negative effects (experiences) as told by participants themselves. It appeared that a lot of these negative experiences were gastro-intestinal related. These were their experiences:

*“The medicines gave me stomach cramps if I take them on an empty stomach.”*

*“Omuti nguno shaa nde gu nu ndi uvite nenge nda sa ondjala, ohagu theta ndje”*

*“These medicines gave me stomach distension.”*

*“Omiti ndhino ohadhi fulike ndje epunda”*

*“This medicine makes me nausea”*

*“Omuti nguno ohagu kunkuta ndje ...”*

In support of these statements, Dreyer (2007) indicated that there are some antihypertensive medicines with which some hypertension patients are treated that cause some adverse effects, for example, hyperkalemia, gastrointestinal disturbances with loss of appetite, vomiting, abdominal cramps, diarrhoea, dizziness, drowsiness, polydipsia, polyuria, impotence and depressed libido.

These negative effects (also known as side or adverse effects) could lead to a great deal of discomfort, and if not recognized early, they could even cause potential harm. The next participant was, however, capable of recognizing that there might be something wrong with his treatment and consulted the doctor again. This was his experience:

*This medicine, (Moduretic), caused me to become nausea and later I vomited. I felt cold and weak. I was dizzy and later my blood pressure became low. When I complained about all these signs to the doctor, the medicine was stopped and I was put on another one which is Indapamide, and this one is good for me.”*

*“Omuti nguno ohagu kunkuta ndje, ohagu kungitha ndje, gwa etela ndje uutalala noshitelele, nda kanitha oonkondo nethindakano lyandje olya li lya gwa pevi. Sho nda nyenyeta noku gandja omaiuvo gandje agehe ngano kundohotola, omuti ogwa mwenekwa e tandi nyolelwa gulwe nogu li go opalelandje”.*

This patient (with the coldness and low blood pressure) appeared to be more informed, but this might not be the case for all the participants. The following quotations are from patients with seemingly minor complaints, but if ignored and not acted upon, might lead to physiological compromises.

*“It caused my mouth to feel dry and made me to be thirsty most of the time. This further made me to drink much water”.*

*“Osho tashi ningitha ndje ndi kale tandi nu omeya olundji”.*

*“Once I take this medicine it causes me to urinate more”.*

*“Shampa ashike nda nu omuti nguno, ohagu ningitha ndje ndi kale tandi sitama olundji.”*

From their health passports it became evident that these participants were also on diuretics. The one that stood out was furosemide. Furosemide (Lasix) has got various adverse effects. A participant treated with furosemide may experience negative side effects. Some are common, while others are uncommon. The common negative experiences (adverse effects) are a loss of sodium leading to hypovolemia and hypotension, dehydration, metabolic alkalosis and hyperuricemia. Hypovolemia

and dehydration may lead to increased thirst that leads to too much water drinking (polydipsia) and made some participants to urinate repeatedly. This is called polyuria (Rang, Dale, Ritter, and Flower, 2007).

Both polydipsia and polyuria were also experienced by some participants. If these conditions are not monitored, especially in the early stages of medicine/drug treatment, then these patients may develop dehydration or shock. The possibility of electrolyte disorders also exists. In this regard, one of the major electrolytes that might be lost through an increased urine output is potassium. This might cause heart dysrhythmias.

In addition to the above negative experiences (adverse effects) of furosemide. Dreyer (2007) indicated the following examples as well: weakness, dizziness and mental confusion. Some participants complained about weakness and dizziness. Some of the comments were:

*“If I take this medicine it gives me dizziness”.*

*“Shampa ashike nda nu omuti nguno, ohagu etele ndje oshitelele.”*

It needs to be mentioned that not all the patients appeared to be on furosemide. Some were treated with potassium sparing diuretics, like hydrochlorothiazide plus amiloride. Some of the negative experiences or effects for example, hyperkalemia, hypernatremia, hyperuricaemia, and hyperglycemia are, could be due to hydrochlorothiazide plus amiloride (Dreyer, 2007).

During the initial stages of their treatment, it appeared as if it took some time to find the correct medication/drug combination(s) for some participants. This could easily be misunderstood and misinterpreted as incompetence from the perspective of the participants. This is evident from the next quotation:

*“The frequent changing of prescription made me to lose confidence in doctors and nurses. It seemed as if some doctors did not know what the correct treatment for hypertension was. Fortunately, the medicines I am being treated with now, Indapamide and Lasix, are good for me”.*

*“Okulundulula omiti olundji otaku*

*kanithitha ndje einekelo moondohotola naapangi.Oshafashi li ngeyi kutya oondohotola kaya li ye shi nawa omiti ndhi tadhi opalele epango lyethindakano lya londa. Elago enene omiti ndhi tandi pangwa nadho ngashingeyi, Indapamide na Lasix”odha opalela ndje”*

Some participants appeared to be on centrally acting anti-hypertensive medicines/drugs. These drugs have their effect in the brain and could cause drowsiness. Smeltzer et.al. (2010) indicate that centrally acting medicines such as Clonidine and Alpha-methyldopa can produce more or less the same central side effects such as drowsiness, sleepiness, forgetfulness, sedation and fatigue. Other peripheral side effects produced by these medicines are dry mouth and impotence or decreased libido.

This was what one participant said:

*Once I take this medicine, I become drowsy and want to sleep most of the time”*

*“Shampa ashike nda nu omuti nguno,ohandi kala ashike nda hala oku kotha uunaaluhe”.*

According to Dreyer (2007), Atenolol can cause the following negative experiences (adverse effects), such as cardiac failure and brady-arrhythmia, bronchospasm, ischemic phenomena (claudication) and masked hypoglycaemia. There are also central nervous system negative experiences (adverse effects) that can be experienced by participants; such as insomnia, hallucinations and vivid dreams. While agreeing with the above, Rang, Dale, Ritter and Flower (2007), add fatigue on the list of the adverse effects (negative effects) of Atenolol. However, none of these negative effects was experienced or reported by any of the participants.

It was found that most participants who took part in this research study (as interviewees) were treated with hydrochlorothiazide alone or in combination with one or two other medicines. Three participants were treated with different antihypertensive medicines. Participants therefore experienced one or more pleasant sensations or unpleasant sensations (adverse effects) of hydrochlorothiazide (Moduretic) and other medicines as listed in table 3.1 above.

The next discussion will be on inadequate information sharing from the health care providers.

### 3.3.3 MAJOR CATEGORY 3: EXPERIENCES OF INADEQUATE INFORMATION SHARING FROM THE HEALTH CARE PROVIDERS

On probing the participants, it was found that participants lacked adequate information regarding changes in life styles. Nearly all of them reported that they were not given any education relevant to a hypertension patient.

**Sub-category 3.1: Lack of information regarding possible sexual dysfunction as presented in the following column.**

A small number of the participants indicated that their sexual lives were negatively affected by the effects of hypertensive medicines. The quotations were clear evidence of the participants' stories. The following statements are quotations that were made by the participants themselves.

*“Since I was put on these medicines my sexual desire dried up. Even now, as I am sitting here (frowning while staring in the researcher’s eyes), I don’t have a feeling for sex.”*

*“Okuza ngaa sho nda tameke okunwa omiti ndhino, ehalo lyandje lyomondjugo olya kana.*

*Nongashingeyi owala sho nda kuutumba mpa(a tulako oothige koshipala omanga a tala omupekapek imomeho), kandi na nando omaivo giihulo kaya.”*

*“I think the medicine has decreased my sexual desire”*

*“Otandi dhiladhila kutya omuti nguno ogwa shunitha pevi ehalo lyandje lyomilalo.”*

*“Yes, my sexual performance is not the same; it has dropped. Even my wife has noticed it, so much so that she thought that I was cheating on her with other women at my work place.”*

*“Eeno, omupondo gwandje gomondjugo ogwa gwa pevi, unene tuu ngele tashi ya kolweetho olutiyali. Nomukulukadhi gwandje okwe shi dhimbulula nokuli nota fekele kutya otandi mu nyokoma naafuko yalwe kehalalyandje lyiilonga”*

It had been extensively reported in the literature that treatment modalities for hypertension could affect sexual performance and desires (Dreyer, 2011; Rang, Dale, Ritter and Flower, 2007).

**Sub-category 3.2: Lack of information regarding the type of foods to eat or types of drinks to consume.**

When participants were asked to narrate their experiences about the information received regarding the types of foods to be eaten by a hypertension patient or types of drinks to be consumed, their responses indicated a lack of information in this regard. The following quotations were supporting this sub-category:

*“Being a hypertension patient, I was not informed about the type of foods I have to eat.”*

*“Ongo omumvu gwehindakano lyombinzi lya londa, inandi pewa uuyelege kutya iikulya yoludhi luni ndi na okulya.”*

*“I was not informed whether it is inappropriate to use alcohol even if I am diagnosed with hypertension.”*

*“Kanda li nda yelithilwa nawa ngele inshi uuka okulongitha iikolitha ngele onda monika ethindakano lyombinzi lya londa.”*

*“Health workers at the hypertension clinic did not warn me about the drinking of Coca-Cola or coffee.”*

*“Aaniilonga yuundjolowele yokokapangelo kethindakano lyombinzi lyalonda inaa londo dhandje kombinga yokunwa okokakola nenge okoothiwa.”*

*“As a hypertension patient, I was not informed if it is appropriate to smoke cigarette or pipe or not.”*

*“Ongo omumvu gwehindakano lyombinzi lya londa, inandi pewa uuyelege ngele osha uka tuu okunwa omakaya gokombigano ku hila uusekeleta.”*

In support of the above statements, once a patient has been diagnosed with hypertension, it is important for him/her to be provided with relevant information regarding diet, alcohol consumption, smoking and taking of coffee, exercises and how to live a stress free life. Participants should also be educated or encouraged to adapt to any new life style changes that might be suggested for the purpose of improving hypertension (Lutz and Przytulski, 2011).

### **3.4 SUMMARY**

The findings in this chapter indicated that three main categories were formulated namely, experience varying degrees of comprehension of the disease process, positive and negative experiences regarding treatment and experiencing inadequate information sharing by health care workers.

Except for the first category, each of the main categories has a number of subcategories. The quoted literature control compared well with patients experiences.

The next chapter will be a discussion on the conclusions, guidelines, limitations and recommendations.

## **CHAPTER 4**

### **CONCLUSIONS, GUIDELINES, LIMITATIONS AND RECOMMENDATIONS**

#### **4.1 INTRODUCTION**

In this chapter the conclusions, guidelines, limitations and recommendations of the research is discussed.

The purpose of this study was to explore and describe the lived experiences of patients who are diagnosed with hypertension in the Oshana Region in northern Namibia and to develop guidelines that will be used to prepare and educate patients regarding certain life style changes and adaptations that need to be made.

From the data analysis the final conclusions of the study are presented as the three main categories. These conclusions were that the participants:

- were experiencing varying degrees of comprehension of the disease process;
- had positive and negative experiences regarding their treatment; and
- were experiencing inadequate information sharing by health care workers.

The next discussion will therefore be on the guidelines that will be submitted. These guidelines will be presented according to the three main categories that emerged

from the data analysis. Refer to table 4.1 for an overview of the identified category and corresponding guideline.

**Table 4.1 Guidelines for the participants who were treated for hypertension**

<b>Category</b>	<b>Guideline</b>
1. Experiencing varying degrees of comprehension of the disease process	1. Facilitation of an increased knowledge base
2. Positive and negative experiences regarding the treatment	2. Facilitating of the positive experiences of the treatment and minimizing the negative experiences of the treatment
3. Experiences of inadequate information sharing by health care workers	3. Facilitating of the information sharing by the health care workers

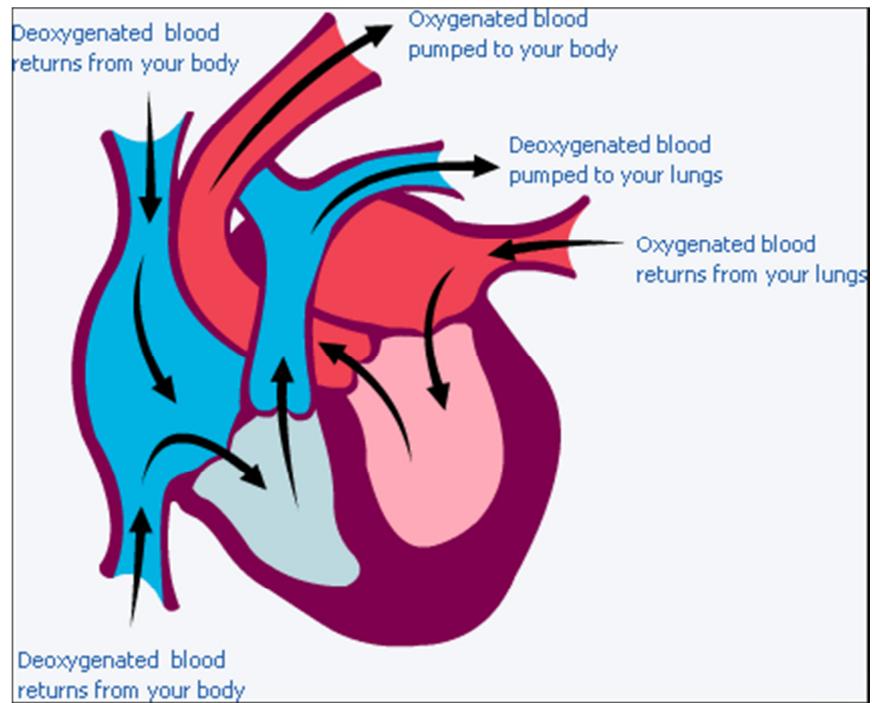
## **4.2 GUIDELINES FOR HYPERTENSIVE PATIENTS**

The following discussion of the guidelines is based on table 4.1.

### **4.2.1 GUIDELINE 1: FACILITATION OF AN INCREASED KNOWLEDGE BASE**

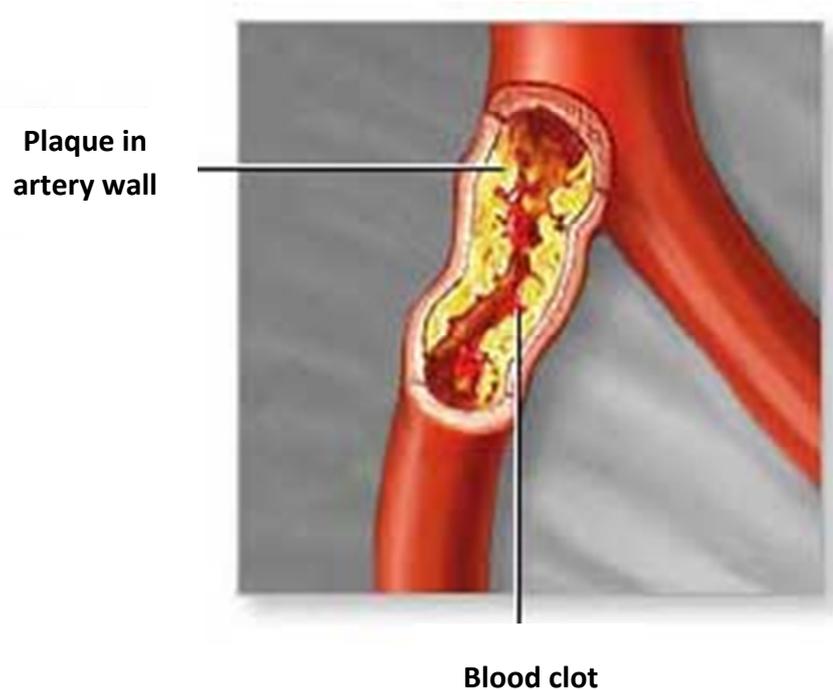
The following guidelines are submitted to assist hypertension patients in obtaining a functional knowledge about hypertension:

- **For the participant: Obtain information**
  - Obtain a copy of your rights as a patient.
  - Obtain information about the meaning of hypertension.
  - Obtain information about the meaning of specific terminologies like systolic and diastolic pressure.
  - Keep a journal with all the questions and problems encountered and ask your health care worker during a scheduled or un-scheduled visit.
  - Accept responsibility for your life. It is important for one's health to take personal responsibility for your own life (Swenson 1992).
- **For the health care worker: Provide information**
  - Provide a leaflet in which there is a description of what is meant by a stroke, myocardial infarction, kidney impairment and retinal damages.
  - Provide a leaflet with minimal anatomy, like in figure 4.1 and figure 4.2.
  - Include in this leaflet how blood flow is affected in hypertension.



**Figure 4.1: The route of blood through the human heart**

Source: <http://www.google.com.na/images>



**Figure 4.2: Blood vessel with plaque in its wall and a blood clot in its lumen**

Source: <http://www.google.com.na/images>

#### **4.2.2 GUIDELINE 2: FACILITATING OF THE POSITIVE EXPERIENCES OF THE TREATMENT AND MINIMIZING THE NEGATIVE EXPERIENCES OF THE TREATMENT**

The information that emerged through this category focussed on treatment related experiences, some were positive and some negative. The types of negative experiences were more drug-related. The guidelines should therefore focus on assisting and guiding patients on drug treatment:

- Health care workers, but specifically nurses, should do follow up visits; ask for the patients' health passports to familiarize themselves with the current drug prescription.
- Advise the patients to keep diaries – make at least daily entries for the first few months. Record general feelings, any changes with regard to bodily functions. Record any changes in physical appearances
- Provide the medication/drug inserts to patients – and explain it to them.
- Include family members when providing information regarding drugs – ask family members to assist with the identification of any physical or emotional/psychological changes in the patient.

#### **4.2.3 GUIDELINE 3: FACILITATING OF THE INFORMATION SHARING BY THE HEALTH CARE WORKERS**

In the third major category it was observed that participants experienced a lack of relevant and adequate information or health education regarding the possible change of lifestyles and how to adapt to these changing life styles. These include information on diet, alcohol consumption, smoking, exercise, stress, the importance of controlling body weight, and the effects of some hypertension medicines on the patient's sex life (DeLaune and Ladner, 2011, pp. 522-523).

#### **4.2.3.1 LIFESTYLE MODIFICATION TO PREVENT AND MANAGE HYPERTENSION**

After a patient has been diagnosed with hypertension, it is the responsibility of health workers to inform and educate the patient about the following lifestyle modification that he or she has to adapt for the improvement of his or her condition. Such an intervention aims at lowering and controlling the blood pressure to prevent unpleasant sensations or experiences and complications of the target organs for example heart, brain and kidneys (Smeltzer, Bare, Hinkle and Cheever, 2010, p. 894).

The following points are of the utmost importance and participants should be educated about them for their better health during the time they are living with hypertension. Participants must also be educated about what it means when they experience pleasant sensations and or when they experience unpleasant sensation.

- **Diet**

The participants must be educated to cut down on sodium (salt) intake, for example he/she should take 2.4g or less per day. And when salt free food is served, it is better for the participant not to add salt. It may not be easy for participants to enjoy salt free diets, but with time and encouragement, the participant will cope and get used to eat salt free diets (Smeltzer, Bare, Hinkle and Cheever, 2010, p.894).

Patients diagnosed with hypertension must be educated about the importance of taking low-salt or no salt diet food, because this causes extracellular fluid to leave the body easily which will lead to reduced body volume followed by reduced blood pressure.

It is also important for patients to refrain from eating high-fat animal meat. This is rich in cholesterol that can lead to arteriosclerosis and high blood pressure. Instead, let them consume white meat such as chicken, fish and pork.

While fruits and vegetables are expensive and not every participant may be able to afford buying them, participants should be encouraged to eat fruits, vegetables, low-fat, dairy products and fibre. Again, if participant can afford it, he / she should rather use artificial salt/supplements bought from pharmacies across the whole country, to try and make the food tasteful and enjoyable.

The reason why salt should be reduced or excluded from the food eaten by a hypertension patient is because salt causes water retention in the extracellular fluids and this in turn causes hypertension. Another equal important fact is that the hypertension patient's food should contain low fat. This is to prevent fat to clog in the lumen of the arteries making it to become narrow and followed by increased resistance to blood flow. Increased resistance to blood flow will cause increased blood pressure (Lutz and Przytulski, 2011, p.375).

- **Limit or stop alcohol consumption**

Not every participant is able to buy alcohol, but it is often observed that poor unemployed citizens are the victims of homemade alcohol containing brews which they can afford and share with others at “tombo houses.”

Alcohol has blood vessels narrowing actions through the release of certain chemical substances which cause increased blood flow resistance followed by increase in blood pressure; therefore it will be safer if patients with hypertension are encouraged to refrain from taking alcohol. Also, hypertensive patients should be encouraged to avoid taking cool drinks such as Coca-Cola that contains caffeine; rather drink Coca-Cola that is caffeine-free. While caffeine is a stimulant, it also increases blood pressure by constricting the arteries (DeLaune and Ladner, 2011, p.523).

In this research study some participants reported that they were not warned about the danger of taking alcohol or even caffeine-rich Coca-Cola while suffering from hypertension. To some Coca-Cola is light and should not cause any harm to any person, because “Coca-Cola is the children’s drink”

*(Okokakola oshikunuw shuunona).*

- **Stop smoking or if not smoking, do not start**

Tobacco and cigarette smoking has a chemical substance called nicotine. Like alcohol, nicotine causes vasoconstriction. Once the lumen of arteries becomes

narrow, resistance to blood flow becomes high. High resistance to blood flow causes the heart to contract forcefully in an attempt to pump the required blood volume to reach various body parts. The forceful heart contraction causes the pressure inside the artery (arterial blood pressure) to rise and this may defeat the good purpose of reducing blood pressure. So, tobacco and cigarette smoking, while on treatment of hypertension, counter-act the purpose of lowering blood pressure and should therefore be discouraged at all costs. Hypertension patients must be discouraged to consume alcohol or to smoke. All these substances (alcohol and nicotine from tobacco) have got vaso-constricting effects which lead to high blood pressure. Those patients who are consuming alcohol or smoking should be encouraged to stop and those who do not use alcohol or smoke should be encouraged not to start. It is also recommended that hypertension patients should avoid drinking caffeine containing drinks, such as coffee/tea, coca cola and instead they should drink caffeine free coffee/tea or tab and zero sprite (Lutz and Przytulski, 2011, p.379).

- **Health education**

It is very important for the patients who frequently visit the hypertension clinics to be encouraged by the health workers at the clinic to always go for general check-ups including the measuring of blood pressure for it to be identified on time. Participants should also be encouraged and educated about the importance of taking their medicines regularly. They must be informed about the medicines possible good effects and negative effects that they might experience.

- **Spend time in relaxation and avoid stressful life**

When stress is experienced, patients should be encouraged to identify the causes of stress and if possible come to terms with it in order for them to relax. If this does not help, the patient must be counselled by a therapist who could be a social worker or any other counsellor.

- **Do regular exercises**

The age range of participants is 29 years, being the youngest and 77 years, being the oldest at the time of data collection. Therefore not every participant in this research study could be expected to do regular physical exercise due to higher age. Maybe, older patients should be encouraged to walk for approximately ten minutes long around the block/house or even down the street. It is recommended that 30–40 minutes of walking daily is healthy and it reduces blood pressure. Otherwise able patients can do jogging over a distance of one kilometre daily. If the patient is able to ride a bicycle, he/she can exercise bicycling. Depending on affordability and the financial status of patients, those who can afford it, can join the gymnasiums for physical exercises.

- **Control body weight**

If the participant's body mass index is over 25, the participant should be encouraged to lose weight. High body weight is directly related to high blood pressure. Patients should also be encouraged to avoid obesity.

- **Reduce dietary saturated fat and cholesterol**

Cholesterol causes arteriosclerosis that can lead to narrowing of arterial lumen, high resistance to blood flow and therefore increased blood pressure (Nettina 2006, p.455).

Smeltzer, Bare, Hinkle and Cheever (2010, p.894) suggest a specific amount of food to be taken daily or weekly under what is called "Dietary approaches to stop hypertension" (DASH) formula that is based on 2000 calories per day.

**Table 4.2: The DASH DIET**

<b>Food group</b>	<b>Number of servings per day</b>
“Grains and grain products	7 or 8
Vegetables	4 or 5
Fruits	4 or 5
Low-fat or fat- free dairy foods	2 or 3
Meat, fish and poultry	2 or fewer
Nuts, seeds and dry beans	4 or 5 weekly”

*Source:* [www.nhlbi.nih.gov/health/public/heart/hbp/dash/index.ht](http://www.nhlbi.nih.gov/health/public/heart/hbp/dash/index.ht)

(Adapted from Smeltzer, Bare, Hinkle and Cheever, 2010, p. 894).

- **Sexual dysfunction**

Some of the participants experienced impotence and reduced sexual desires. They believed that this erectile dysfunction was caused by the medicines they used for hypertension treatment. Literature has it that in case of erectile dysfunction or decreased libido as experienced by some participants, they (participants) should be encouraged to consult the gynaecologist/urologist or sex therapist for treatment (Smeltzer, Bare, Hinkle and Cheever, 2010, p. 206).

### **4.3 LIMITATIONS OF THE STUDY**

The limitations of this study include the unavailability of similar research reports that focused directly on the subject (title) of this research study. This made it difficult for the researcher to access information that is related to the topic. Another limitation of this study was that the researcher did not make use of the voice recorder during the process of data collection. However, when the member checking was done, all the participants agreed that the feedback data was what they have said.

### **4.4 RECOMMENDATIONS**

- **Nursing education**

These results should be made available to the curriculum committee of the University of Namibia. The aspects of individualization, especially with regard to drug monitoring in patients who are being treated for hypertension should be emphasized.

- **In-service education**

Formal in-service education sessions for health care workers (more specifically for registered nurses), who function in outpatient departments and clinics, should include more specific information regarding pharmacotherapy regarding hypertension.

- **Research**

It is recommended that further research be carried out on this topic or related topics, such as information sharing by health care worker regarding patients diagnosed with hypertension. Given the importance of hypertension in general, the study will hopefully provoke more debates while at the same time, it will stimulate the interest of other health workers to conduct more research on this subject itself.

#### **4.5 CONCLUSION**

The study arose from the fact that the researcher noted that an increased number of patients suffering from hypertension worldwide (some of which died before they were diagnosed). In the \*\*Oshana Region, to be specific, at the hypertension clinic of Oshakati Intermediate Hospital, the daily attendance was noted to be high (Ministry of Health and Social Services: Oshana Health Region, June, 2010).

All hypertension patients that made up the sample were treated with one or more antihypertensive medicines. It was stated by some patients that they were not given the much needed health information regarding hypertension at the clinic.

It was therefore important to explore what the hypertension patients experienced once they were diagnosed with hypertension and treated with various antihypertensive medicines (their living experiences as told by themselves during the interview process).

After the participants have narrated their living stories about their living experiences, befitting guidelines were developed to educate patients regarding certain lifestyle changes that they were to make in their lives. It is trusted that this study will contribute to the body of already existing nursing knowledge of a hypertension patient.

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**ANNEXURE A**

**Letter of permission from the University of Namibia to conduct this research as a post graduate student.**

**ANNEXURE B**

**A letter requesting Permanent Secretary for Ministry of Health and Social Services to conduct this research.**

**ANNEXURE C**

**Letter from Permanent Secretary for MoHSS allowing to  
conduct research.**

**ANNEXURE D**

**Request to Dr. Hamata, Oshana Health Region Director, for permission to conduct this research in the region.**

**ANNEXURE E**

**Letter from Dr. Hamata, Oshana Health Director, granting me permission to conduct this research in the Oshana Region.**

**ANNEXURE F**

**Letter to Dr. S.W. Kuugongelwa requesting her to act as a co-coder for the study.**

**ANNEXURE G**

**Report from Dr. Kuugongelwa, S.W., a co-coder.**

**Annexure H**

**Some examples of questions asked by the researcher and quotations as said by individual participants during the interview.**

It has to be stated from the onset that these examples of quotations were extracted from the interview that was conducted in the participants' spoken language (Oshiwambo), and translated into English by the researcher. The researcher used capital letters to indicate who said what throughout the whole interview process. The capital letters are as flow:

**(R) = Researcher**

**(M) = Male participant**

**(F) = Female participant.**

In this appendix, the quotations were written verbatim to present the tone and experiences of participants as validly as possible. The following are some examples of the questions asked by the researcher (R) and responses given by the participants (M) or (F).

(R): *“Owa ti owa monika omukithi gwethindakano lyombinzi lya londa, lombwela ndje u tale kutya omukithi nguno ou gu uvite ko ngiini?”*

*“You said you have been diagnosed with hypertension; tell me how you understand hypertension”.*

(M): *“Kandi gu uvite ko”.*

*“I don't understand it”.*

(F): *“Aaye, kandi gu uvite ko natango”.*

*“No, I don't understand it yet”.*

(F): *“Kandi shi shi, ihe ngiika ogo omithipa nenge oonkandjambinzi dha thita”.*

*“ I don’t know, but I think it is blocked blood vessels”.*

(M): *“Kandi shi shi, ihe ngiika ohagu etwa koothina momadhiladhilo, kongeyo, nokomayipulo”.*

*“ I don’t know, but I think it is caused by stress, aggressiveness and worries”.*

(M): *“Ee, ondi shi shi kutya omukithi gwomutima nomithipa dhombinzi itaadhi longo nawa”.*

*“Yes, I know that hypertension is a disease of malfunctioning heart and blood vessel that are not in a good working order”.*

(R): *“Ngashingeyi sho wa ningi ethimbo ele nomukithi (ethindakano) no to gu pangwa nokuli, ou gu uvite ko nee ngiini?”*

(M): *“Kandi gu uvite ko naanaa natango, ihe ondi shi ngaa kutya ogwo omuzalo gwonkalamwenyo; ano ihagu aluka”.*

*I still don’t understand it, but I know that it is a disease for life”.*

(F): *“Ee ngashingeyi ondi uvite ko kutya ogwo omukithi ihaagu aluka”.*

*“Yes, now I understand that hypertension is an incurable disease.”*

(M): *“Aaye, hanaanaa”.*

*“No, not really”.*

(F): *“O, (ta yolo), ngiika omukithi gwomapunga nomutima”.*

*“O, (laughing), maybe it is a disease affecting lungs and the heart”.*

(M): *“Eeno, ondi uvite kutya ethindakano lyombinzi lya londa olyo omukithi*

*gwomutima noonkandjambinzi; hagu dhipaga noku lemaneka  
aantu ombaadhilila ngele ingu pangelwa po”.*

*“Yes, I understand that hypertension is a disease of the heart and blood vessels.  
It can kill people suddenly if it is not treated”.*

(F): *“Eenoo!(ti imemeha, ye a tala pevi), ondi shi shi kutya omukithi gwa nika  
oshiponga, hagu dhipaga mbala”.*

*“ Oh yes, (smiling while looking down), I know that it a very dangerous disease  
that kills suddenly”.*

(F): *“Hanaanaa, ashike shoka nda uva, ohagu dhipaga noku lemaneka aantu”.*

*“Not really, but what I have heard is that it kills and disables people”.*

(M): *“Omukithi gwomutimatagu ehama, noonkandjambinzi itaadhi longo nawa,  
omutima otagu loloka nomithipa dhombinzi dhi na epuko, onkene itadhi longo  
nawa”.*

*“It is the disease of the heart and blood vessels when they are not functioning  
properly. The heart gets tired and fails to function normally. The blood vessels  
somehow malfunction that they cannot do their functions properly”.*

(R): *“Hokololela ndje shoka wa ndhindhilike omiti dethindakano lya londa dhe ku  
ningila okuza sho wa tameke oku dhi nwa”.*

*“Tell me about your experiences with the anti-hypertensive medicines since you  
started taking them”.*

(M): *“Omiti odha hulitha po oshitelele. Odha koleke ndje nodha uvitha ndje ndi na  
uundjolowele”.*

*“These medicines stopped dizziness. They have strengthened me*

*and they made me feel healthier”.*

(F): *“Uuwehame womutse noshitelele oya ya, nomvulwe kandi yi uvite we”.*

*“Headache and dizziness are gone and I am experiencing tiredness anymore”.*

(M): *“ Omutse noshitelele oya mwena. Omvulwe neloloko kandi yi uvite we”.*

*“Headache and dizziness are gone. I am not experiencing tiredness and weariness anymore”.*

(F): *“Omiti ndhino ohadhi fulike ndje epunda”.*

*“ These medicines gave me stomach distension”.*

(M): *”Omuti nguno ohagu kunkuta ndje”.*

*“This medicine made me nausea”.*

(M): *“Omuti nguno, (Moduretic) ohagu kunkuta ndje, ohagukungitha ndje, gwa etela ndje uutalala noshitelele, nda kanitha oonkondo nethindakano lyandje olya li lya gwa pevi. Sho nda nyenya noku gandja omaiuvo gandje ngano ku ndohotola omuti ogwa mwenekwae tandi nyolelwa gulwe nogu li gwo opalela ndje”.*

*“ This medicine, (Medicine), caused me to become nausea and later I vomited. I felt cold and weak. I was dizzy and later my blood pressure became low. When I complained about all these signs to the doctor, the medicine was stopped and I was put on another one which is Indapamide, and this one is good for me”.*

(F): *“Ohagu ningitha ndje ndi kale nda kukuta mokana ngame nda sa enota ngame tandi nu omeya olundji”.*

*“It caused my mouth to feel dry and made me to be thirsty most of the time.*

*This further made me to drink much water”.*

(F): *“Shampa ashike nda nu omuti nguno, ohagu ningitha ndje ndi kale tandi sitama olundji”.*

*“Once I take this medicine it causes me to urinate more”.*

(F): *“Shampa ashike nda nu omuti nguno, ohagu etele ndje oshitelele”.*

*“If I take this medicine it gives me dizziness”.*

(M): *“Oku lundulula omi olundji otaku kanithitha ndje einekelo moondohotola naapangi. Osha fa shi li ngeyi kutya, oondohotola kaya li ye shi nawa omi ndhi tadhi opalele epango lyethindakano lya londa. Elago enene, omi ndhi tandi pangwa nadho ngashingeyi, Indapamide naLasix, odha opalela ndje”.*

*“The frequent changing of prescription made me to lose confidence in doctors and nurses. It seemed as if some doctors did not what the correct treatment of hypertension was. Fortunately, the medicines I am treated with now, Indapamide and Lasix are good for me”.*

(F): *“Shampa nda nu omuti nguno ohandi kala ashike nda hala okukotha uunaaluhe”.*

*“Once I take this medicine, I become drawsy and want to sleep most of the time”.*

(R): *“Omi dhimwe dhoku panga ethindakano lyombinzi lya londa ohadhi nwetha mo omahalo gaantu gopamilalo uuna dha longithwa ethimbo ele. Hokololel ndje nkene omi ngu ho nu gwa nwetha mo omahalo goye gwopamilalo”.*

*“Some anti-hypertensive medicines affect people’ sexual desires once they are taken for a long time. Tell me your experiences how this anti-hypertensive*

*medicine influenced your sexual desires”.*

(F): *“Okuza ngaa sho nda tameke oku nwa omiti ndhino, ehalo lyandje lyomondjugo olya kana .Nongashi owala sho nda mpa (a tula ko oothige koshipala, omanga a tala omupekapeki momeho) kandi na nando omaiuvo giuhulo kaya”.*

*”Since I was put on these medicines my sexual desire dried up. Even now, as I am sitting here (frowning, while staring in the researcher’s eyes), I don’t have a feeling for sex”.*

(M): *“Otandi dhiladhila kutya omuti nguno ogwa shunitha pevi ehalo lyandje lyomilalo”.*

*“I think that this medicine has decreased my sexual desire”.*

(M): *“Eeno, omupondo gwandje gwomondjugo ogwa gwa pevi, unene tuu ngele tashi ya konkwiidhidhi (olweetho) ontiyali”. Nomukulukadhi gwandje okwe shi dhimbulula nokuli, nota fekele kutya otandi mu nyokoma naafuko yalwe kehala lyandje lyiilonga”.*

*“Yes, my sexual performance is not the same; it has dropped. Even my wife has noticed it, so much so that she thought that I was cheating her with other women at my place of work”.*

(R): *”Lombwela ndje u tale kombinga yuuyelele wa pelwe kaaniilonga yuundjolowele, onga omumvu gwetindakano lya londa, kutya iikulya yini u na okulya nenge iikunwa yini u na oku iyageka, opo shaa nayipike omukithi”.*

*”Tell me about the information you were given by the health workers, as a hypertension patient, regarding the type of foods you were to eat and the types of drinks you were not to drink in order not to aggravate the disease”.*

(M): *“Ongo omumvu gwethindakano lyombinzi lya londa, kanda li nda pewa nando uyelele was ha shin a sha niikulya mbi ndi na okulya”.*

*“Being a hypertension patient, I was not informed about the type of foods I have to eat”.*

*“Kanda li wo nda yelithilwa nawa ngele inashi uuka okulongitha iikolitha omanga nda monika ethindakano lyominzi lya londa”.*

(R): *...kombinga yokunwa okokakola nenge okoofiwa?”*

*....about drinking Coca Cola or coffee?”*

(F) *“Aaye, aaniilonga yuundjolowele yokokapangelo kethindakano lyombinzi lya londa inaya londodha ndje kombinga yo ku nwa okokakola nenge okoothiwa”*

(R): *“Hee, kombinga yoku hila omakaya guusekeleta nenge kombiga yomakaya, owa lombwelwa ko shike mekwatathano nethindakano lya londa, uyelele mbuno owe u pewa?”*

*“Hmm, what about information regarding cigarette or pipe smoking in relation to hypertension patient, was this given to you?”*

(M): *“Onga omumvu gwethindakano lyombinzi lya londa, inandi pewa uyelele ngele osha uka tuu okunwa omakaya gokombiga nenge uusekeleta”.*

*“As a hypertension patient, I was not informed if it is appropriate to smoke cigarette or pipe or not”.*

<b>ANNEXURE I:</b> <b>RESEARCH QUESTIONS POSED</b>
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**Main question:**

*“Tell me about your experiences since you were diagnosed with hypertension and have started to take the medicines for the treatment of hypertension?”*

**Possible probing questions:**

- **Could you explain your statement / comment**

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- **Could you give examples on your statement / comment**

.....

**Clarifying questions:**

- **Do I understand you correctly that you said**

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