THE UNIVERSITY OF ZAMBIA
SCHOOL OF MEDICINE
DEPARTMENT OF POST BASIC NURSING

KNOWLEDGE AND PRACTICE OF MEN TOWARDS BENIGN PROSTATIC HYPERTROPHY (BPH) IN SINAZONGWE DISTRICT, SOUTHERN PROVINCE

BY

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I would like to thank the New Apostolic Church brothers and sisters for their ceaseless prayers. May the Lord God richly reward you abundantly.

Lastly may I appreciate my husband and children for their support and love though the times were rough for them without my care.

You are all everything to me, thanks.

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List of abbreviations

AIDS	-	Acquired Immune Deficiency Syndrome
BNO	-	bladder neck obstruction
BPH	-	Benign prostatic hyperplasia
CHW	-	Community Health Workers
CSO	-	Central Statistics Office
DHMT	-	District Health Management Team
DRC	-	Democratic Republic of Congo
HIV	-	Human Immunodeficiency Virus
LUTS	-	Lower Urinary Tract Symptoms
MCH	-	Maternal Child Health
NGO	-	Non Governmental Organization
NHC	-	Neighborhood Health Committee
PSA	-	Prostate Specific Antigen
TB	-	Tuberculosis
UTH	-	University Teaching Hospital
UTI	-	Urinal Tract Infection

Declaration

I, Kashumba Chola Molly, hereby declare that the work presented in this study for a Bachelor of Science in Nursing has not been presented wholly or partially for any other Degree and is not being currently submitted to any other Degree.

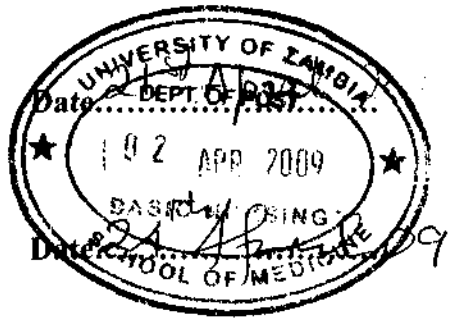
Signed.....Kashumba.....

(Candidate)

Approved.....Mudele.....

(Supervisor)

Date.....



Statement

I, Kashumba C. Molly, hereby certify that this study was entirely the result of my own labor and independent investigations. The various sources to which I am indebted are clearly indicated throughout the text and in the reference.

Signed.....Kashumba..... **Date**.....21st April 2009.....

(Candidate)

Dedication

To my only friend, grandmother Chikuni, though you are no more you are still so dear to me rest in peace until we meet again! I know it will be wonderful.

Abstract

The study was aimed at determining the Knowledge and Practice of men towards Benign Prostatic Hypertrophy (BPH) in Sinazongwe District, Southern Province.

Literature review on Benign Prostatic Hypertrophy was collected on studies done Globally, Regionally and Nationally. It was indicative that a lot of men after the age of 45years had BPH without them knowing until the situation had worsened 10 years or later. It was also observed that the pain the patient experienced could have been prevented. Assessing the men's knowledge and practice towards BPH was necessary because it would help these men understand and adopt good practices and reduce the risk of cancer and death from such a condition.

The study was conducted on 50 elderly men above the age of 55 years of whom some had suffered from the disease. A non experimental descriptive study design was used. For selecting the sample, a multi stage sampling method was used. This took place from 2nd to 30th September 2008 in Maamba, Sinazongwe District. A self administered questionnaire was used to collect data. After collecting the data, it was computed on the master sheet as quantitative and qualitative data which was later analysed manually and interpreted using frequency tables. Cross tabulations were also used to determine relationships between variables.

The study revealed that the majority (80%) of the 50 respondents had lack of knowledge of BPH while (60%) of the respondents had good practice towards BPH given the knowledge. This indicated that the male's lack of knowledge affected them either positively or negatively for them to seek help and acquire the necessary care. The literature also revealed that age was a major predisposing factor to BPH, while the majority of the respondents were agreeable and accepted the condition as inevitable. This indicated that their practice would be subjective to the knowledge they had over the disease.

Major recommendations made include the following;

The following recommendations were made from the study;

- The ministry of health should integrate male gender screening, especially BPH, in Maternal and Child Health (MCH) activities by giving out fliers on the subject so that men are aware of the screening facilities available for them. The medical personnel should routinely screen all men above 55 years for BPH when attending Out Patient Department.

- The Ministry of Health should work in conjunction with other Departments such as Broadcasting so that BPH screening is advertised on mass media for all men to know about it and make informed choices.

- The Ministry should facilitate for a much larger study; including rural areas to enable generalization of the findings and to evaluate the effectiveness of measures, which would be put into place.

- Sensitization campaigns about BPH should be carried out in strategic areas for the people to be informed. The BPH clinics should be put in place and be provided with adequate supplies of equipment and screens for privacy.

- Health care providers especially nurses need to acquire adequate education on BPH screening and other information related to differential diagnosis of BPH in Zambia.

CHAPTER ONE

1.0 INTRODUCTION

Benign Prostatic Hyperplasia (BPH) is the most common neoplastic condition afflicting men and constitutes a major factor impacting the health of the American male. This pathologic change is important because of the intimate anatomic relationship between the prostate and the bladder neck. The association of BPH with aging has been demonstrated repeatedly in autopsy studies using calculated or actual weight, prostate volume, or histologic criteria. Using histologic evidence, (Randall; 1931) and (Harbitz and Haugen, 1972; 80:756–777) found the incidence of definite or probable BPH to exceed 50% in men older than 50 years. This occurrence rises to 75% as men enter their eighth decade. Worldwide, approximately 30 million men have symptoms related to this benign enlargement.

In Zambia the disease burden of BPH is about 6.1% of all cases seen country wide (UTH 2004).

This study looked at the knowledge and practice of men towards benign hypertrophy of the prostate (BPH) in Sinazongwe District.

1.1 Background information

Zambia is one of the countries in the sub Saharan region of Africa covering about 752,612 square kilometers which is about 2.5% of Africa (Central Statistical Office 2002).). It shares borders with the Democratic Republic of Congo (DRC) and Tanzania in the north; Malawi and Mozambique in the east; Zimbabwe and Botswana in the south; Namibia in the southwest and Angola in the west (CSO 2003).

The country is divided into nine Provinces and 72 Districts. Of the nine Provinces two are predominantly urban, namely Lusaka and Copper belt Provinces. The remaining Provinces; Central, Eastern, Northern, Luapula, North-Western, Western and Southern are predominantly rural provinces (CSO 2003).

1.1.1 Population

The country has a total population of 10, 285, 631 out of which 5,070,891 are males and 5214, 750 are females (CSO 2003)

Zambia's population, predominantly rural, is made up of more than 70 ethnic groups with not very diverse cultural and traditional practices. This implies that the rural populations who are at a higher risk of developing diseases related to their poor socio-economic status, have less access to quality health care, this includes Sinazongwe District. Their access to quality health care is limited not only by distance but also due to their poor socio-economic status as they can not pay for certain services and drugs which are rarely found in government health institutions.

1.1.2 Health care system in Zambia

The Zambian Government built several hospitals and health centres after attaining independence in 1964 to increase access to health care by the majority of Zambians. Unfortunately, due to lack of maintenance and among many other reasons, this was followed by erosion of the infrastructure, a decline in the quality of care, a rise in morbidity and mortality, and decrease in drugs and medical supplies.

This situation ultimately led to low staff morale which grossly affected quality of care (PAID-ESA; 1994).

"In 1992, the Government responded by embarking on the Health Reforms Programme which involved restructuring the sector. This included decentralizing the services and reducing the work force so as to have a small and effective work force which was hoped would be better paid, hence, motivated. Introduction of cost sharing, led to demands by the clients for better and quality care commensurate with the cost" PAID-ESA; 1994). The biggest contribution to the provision of quality patient care comes from the trained professionals in all health institutions and the availability of diagnostic counselling. These were unfortunately, the worst affected by the restructuring process compounded by other factors like; brain drain to other countries for "greener pasture", high morbidity and mortality from HIV/AIDS.

According to Ministry of Health (1999), The Health Reforms created an enabling environment for achieving significant improvement for the people of Zambia. The main thrust for Health Reforms was to decentralise the management planning and decision making process to Districts for smooth running in the Hospitals and Boards.

It brought about good referral system from the community to health centre then to first referral hospitals then to second level then finally to third level hospitals like University Teaching Hospital (UTH) for speciality. The provision of health looked mostly at the problems of women and children while issues of men were given little or no attention. The Zambia hospitals attend to cases of BPH on daily bases and the numbers are increasing annually as the cases are being referred from all parts of the country.

The incidence of prostate cancer (benign and malignant) in Zambia is as illustrated in the first table below the highest being Lusaka followed by Eastern then Southern Provinces.

Table # 1: Incidence of BPH in the last five years per province

CANCER	CENT	C/BELT	EAST	LUAP	LSK	NORTH	N/WEST	SOUT	WEST	TOTAL	DISEASE %
Prostate	0	2	28	0	235	1	5	11	1	283	6.1

Table # 2: Cases in relation to age

AGE	0-14	15-24	25-34	35-44	45-54	55-64	65+	N/K	TOTAL	DISEASE %
Prostate Cancer	0	0	3	4	14	48	201	13	283	6.1

Source: ZAMBIA NATIONAL CANCER REGISTRY UTH LUSAKA - ANNUAL AGGREGATES 2000 TO 2005

1.1.3 District Profile

Sinazongwe District is situated in the South-eastern part of Southern Province of Zambia. It is part of the Zambezi valley region and extends from longitude 26 43' E to 27 45' E and latitude 16 50' S to 18 00' S. The District of Sinazongwe shares boundaries with Choma district in the western, Gwembe district in the north and Kalomo district on the south-western border. On the southern part lies in the national boundary with Zimbabwe through Lake Kariba water body. It stretches out from Kafwambila on the southern end up to Chiyabi on the northern side with approximate total square kilometers of 4200 (Sinazongwe DHMT action Plan 2008).

Generally, most people are not in formal employment. Their economic activities include cultivation of draught resistant crops, livestock rearing, trading in sale of second hand clothes and fishing. A few others are in formal employment under Government institutions, private companies such as coal mines, irrigation farm, crocodile and fishing farms, shops and taverns, transport industry and Non-Governmental Organizations (NGO) as stated in the Sinazongwe DHMT action Plan; (2008)

1.1.4 Education levels

Poverty and illiteracy levels are quite high in the District such that no direct media is available for the community to benefit from. Zambia broadcasting services signal does not reach the valley because of the hills making it very difficult for the local poor men to hear any health matters on the air. In order to improve levels of literacy, the District has a total of one high school, thirteen basic schools and twenty-eight primary schools but no college where the people could learn some skills.

1.1.5 Health System in Sinazongwe

The District Health Care system is envisioned to provide equity of access to cost effective quality health care as close to the family as possible. To help attain this goal, there is a functional District Health Management Board (DHMB) that is mandated to provide health services to the people. Under the DHMB, there is modern level one referral hospital (Maamba) with 150 bed capacity, two zonal health centers, eleven health centers, four health posts. Within the community, there are 75 trained Neighborhood Health Committees (NHCs), 175 Trained traditional Birth Attendants (t-TBAs) and 150 Community Health Workers (CHW), TB treatment supporters, Community Based Distributors but none is trained to address male reproductive issues (Sinazongwe DHMT action Plan; 2008)

1.1.6 Overview of Prostate hypertrophy of the Prostate gland

The prostate gland has variable dimensions; in the adult cadaver; the average dimensions are about 3cm high, 4cm wide and 2.5 cm long. The weight is about 20gram. Other study by computer integrated medical intervention laboratory in the inter-net suggested that pre-operative dimension of prostate are as follows; length 29-59mm, mean value of 41mm, width 48-80mm, mean value of 52mm, and height of 33-60mm, mean value of 35mm *(West African Journal of Radiology April 2001 Vol. 8 No. 1* 63),

With age, the prostate gland may begin to grow - this happens to most men. The growth may eventually cause problems with urination, because the gland pinches off the urethra as it increases its size. The growth in itself is harmless and so the condition is called Benign Prostate Hyperplasia (BPH). It occurs most often in men over the age of 60. Up to 30 per cent of men in their 70s have BPH that causes them symptoms. The enlargement of the prostate gland stretches and distorts the urethra and so obstructs the urine flow.

For some men, it suddenly becomes impossible to urinate (known as acute retention). Studies have shown that acute retention affects between 1 and 2 per cent of men with BPH each year **(http://www.emedicine.com/specialties.htm).**

. This condition is very painful and demands immediate medical treatment to avoid damage to the kidneys, among other things. Other men find it gradually harder to empty the bladder. As the condition develops, more and more urine is left in the bladder after urination which is known as chronic retention (NHS Centre for Reviews and Dissemination. December 1995).

1.2 Statement of the problem

The elderly males from the ages of 60 and above usually suffer from disturbed urination and often with frequency without knowing what is taking place in their bodies. Though the problem starts early in their early 50s, none of them would seek medical aid or check-up until the condition is beyond what they could bear either to a point of near death or severe pain. When these clients visit the hospital, the doctors

diagnose Benign Prostatic Hypertrophy (BPH). Not only the hypertrophy but also severe Anaemia, dehydration and general wasting as they avoided eating and drinking to avoid the stress of visiting the toilet. Worse still it could have developed into cancer which was very difficult to manage. Despite all these, it has been observed that clients delay in seeking medical advice. Most of these clients were chronically ill and died from operation stress and depression. Their families were equally distressed and embraced seeing what they went through.

1.3 Factors contributing to the problem

There were several factors which might contribute to the delay in terms of knowledge and practices of man towards benign prostate hypertrophy. These factors would be looked at in terms of;

- Social-cultural-economic factors
- Service related factors
- Client or patient related factors.

1.3.1 Socio-cultural and economical include

The most suspected factor could be Knowledge deficit which could be due to lack of formal education among the old flocks, or it could be none exposure to programs on media as the signal from Lusaka did not reach the valley. These men usually stay in rural areas following retirement, which could make it be very difficult for them to benefit from newspapers or magazine which might discuss such issues. As head of their households, they could have social responsibilities that might lead them to fear of loosing some of their relationships in case they were operated upon and would no longer function as men.

Most of the villages were in the hills that could have predisposed them to having apathy of traveling to health center/hospital due to long distance, lack of transport and poor road network. This could have made it very difficult for the people to visit the clinics for check ups or to benefit from health education on the topic.

Traditional beliefs e.g. witch craft were commonly practiced in the villages which could have contributed to delay in seeking medical aid in time with the thought that their fellow villagers could have bewitched them to inherit their wealth shortly after retiring from active employment. Some of the villagers called the condition as

"lukanko" which comes about after sleeping with someone else's wife and it should not be taken to the hospital. If one did then such would die. With such beliefs one would stay away and would not confess having slept with some one's wife until the person died or discovered by the relatives when it was too late to correct the situation.

With high poverty levels in the District, they could have ignored the problem and continued with their daily chores to rise money for their families' food requirements especially during the cultivation season or may be they could not afford meeting the financial requirements for transport and other hospital costs, so they could have found it cheaper to visited a witch doctor for some herbs which could have worsened the situation.

1.3.2 Service related factors.

Shortage of teaching aids and staff to provide the service could have been caused by poor economical state of the country. This could have contributed to lack of health education and sensitization by the medical personnel in the clinics and hospital. Or it could have been that health education was concentrated on women and children while the men were left out of the package. In some areas the medical personnel could have no expert in the detection of the condition or could not be sure of what to look for and would miss the diagnosis.

These client reach the clinic late after walking for long distance due to lack of transport, they would find long lines leading to long waiting time which could have been worsened by shortage of staff to screen, the client would end up not being seen. The long lines which these clients find could be due to pressure of work and high diseases burden. These clients could have been hungry after long walking distance and having no where to spend a night, it could have forced them to go back home without being seen. While in these villages a team of health care providers would go to conduct MCH activities, but may not provide medical check up to the males. As at now, no outreach programs were put in place to address the problems of men. That could mean men were automatically cut off and could not even go where the medical staffs were conducting such clinics.

The attitude of medical personnel could have also discouraged them, because they had to wait for the staff to work through their work load before they could be seen. Or could it be that the staff ignored those elderly men when they needed their attention.

Shortage of staff in the rural areas due to poor conditions of service could have lead to certain attitudes and stress on the staff. That could have affected these elderly men to stay away from visiting the hospital.

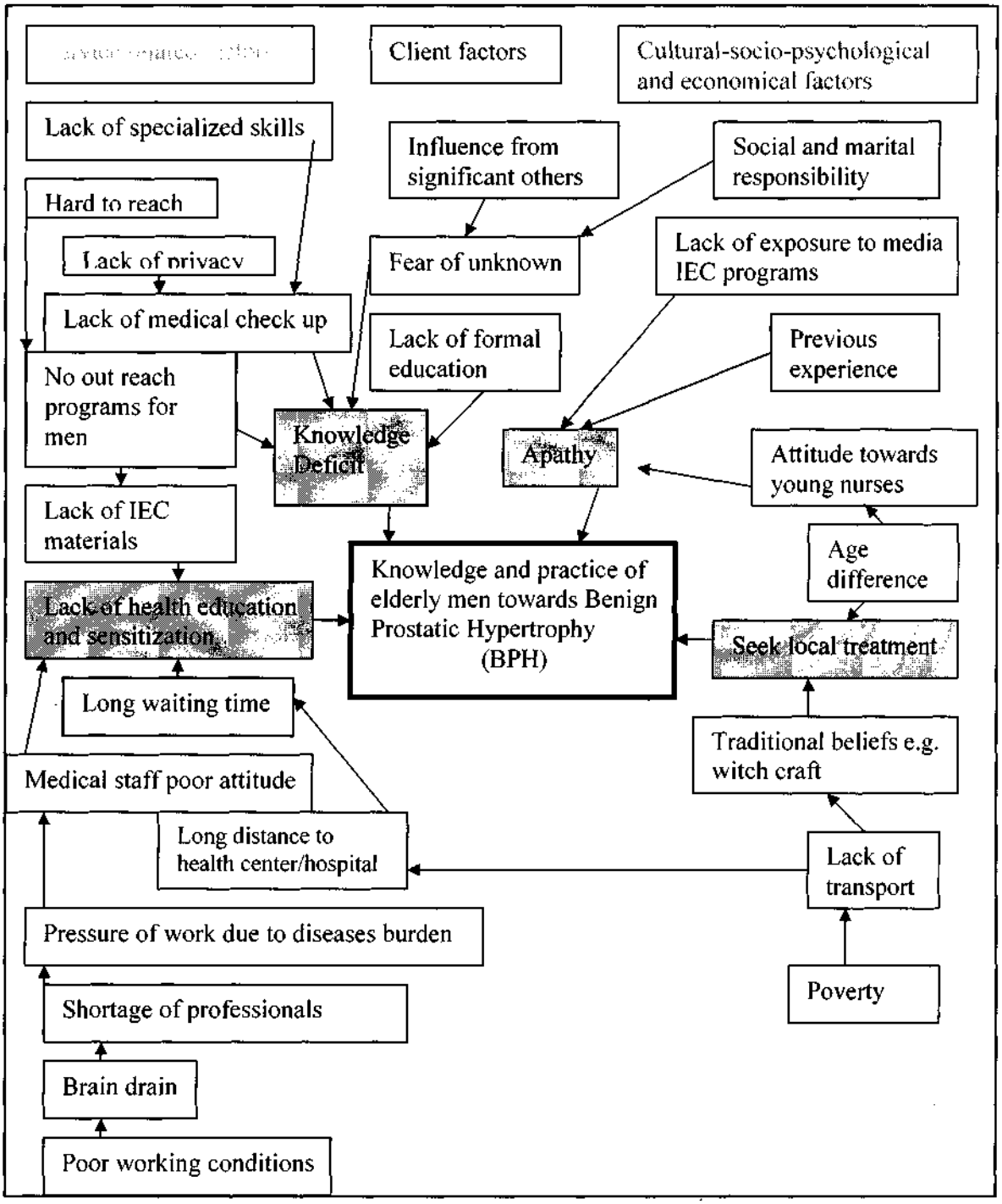
Sometimes the clinics could have had no screens to have the men examined or give out the history, or may be the staff shouted out the conditions in the public that these clients felt embraced to visit the clinic again? Could lack of skill by the clinical staff, lead to missed diagnosis and be treated for urinal tract infections mean while they had BPH. Could all such issues or some of them contribute to poor knowledge and practice of men towards the disease?

1.3.3 Client related factors.

Some times client could have apathy towards the disease that could be influenced by the significant others who would try to discourage the patient from going to the hospital for fear of being impotent. Following the negative attitude of medical staff, the clients would rather visit a witch doctor than visit this arrogant nurse who could have no experience on how to handle the case. As the disease commonly affects elderly men, age difference between them and the young nurses might have caused them to shy away. They could consider the young nurses as their daughters not to see their nakedness.

Since the condition was very common in males aged above 55 years, and they were retiring from active employment, they could associate it to witch craft. May be previous experience witnessed from a relative, who died following an operation, they could fear to die. Just the embracement of moving around with a urine bag could give them the courage to stay away from hospital. Fear of un- known also could create own perceptions about the out come and prevent them from visiting a health facility.

1.4 Diagram No. 1: Diagrammatic Problem Analysis



Source: By Author of the study 2008

1.5 Justification of the study

Cases of BPH have been on increase world wide especially with the white population. Zambia has also recorded high figures (6.1%) of all cases seen were of BPH especially in our elderly male population. BPH has been recorded as the second highest cancer in all cancers affecting men. Sinazongwe district has not been spared from this increase as the district sees many more cases per year presenting with BPH on yearly basis. There could be those who did not visit the hospital due to other reasons and reported to the clinic as having died from difficulties in urination.

Death and discomfort associated with BPH were the telling indicators of the disease's impact on families and communities of such men. Men being the bread winners and head of the families, any torture and pain or even death affected the whole family leading to large numbers of widows and orphans, disharmony in the communities and compromised health of the families. However, early diagnosis through screening and appropriate intervention, death and torment from BPH and its complications would be reduced.

Though the Government has no policy in line with male reproductive conditions other than sexual transmitted infections, this study endeavoured in determining men's knowledge and practice towards BPH. As the knowledge and practices of men towards BPH were known, measures could be put in place to assist men with available examination procedures for early diagnosis and treatment.

The finding of the research would be used to make recommendations to the health care providers, policy makes and non Governmental organizations (NGO) to put strategies in place which would address the total health needs of men in our country that are the back bone of the nation.

1.6 Research Objectives

1.6.1 General Objectives

- To determine knowledge levels and practices of men towards Benign Hypertrophy of the Prostate in Sinazongwe District.

1.6.2 Specific Objectives

- To assess the knowledge levels of men about BPH
- To identify the practices men engage in when they have the symptoms.
- To establish men's knowledge about rectal examination.
- To assess utilization of these rectal examinations

1.7 Hypotheses

- Inadequate information on rectal examination and screening procedures for BPH leads to men not seeking routine medical examination.
- Lack of knowledge about the causes of Benign Prostatic Hypertrophy leads to delay in men seeking medical treatment.

1.8 Operational definitions of terms

Benign A non- malignant growth that would not cause death or serious illness (Merck manual; 1059)

Benign Hypertrophy of the Prostate: A non cancerous growth of the prostate gland arising from the inner transitional and central zones of the prostate at about 40 years of age (Kumar et al 2003). Any man with urinal problems and difficulties in urination would be treated as having BPH until other wise proven.

Health facility: An institution that offers health care to the people. This could be a health post, health centre or hospital

Knowledge: This is the information and facts that you know (Collins Dictionary: 2004). In case of BPH the information that is available to help the men go for check up and early treatment

Medical examination: A thorough examination of the body by professional personnel (Collins Dictionary: 2004). In this case a rectal examination should be included.

Practice refers to what people do regularly (Collins Dictionary: 2004). In this case when one is sick or having a urinal problem would either visit the hospital as a good practice or goes to the traditional healer or stays home as a bad practice.

1.9 Variables and cut off points

A variable was a characteristic of a person, object, event or phenomena that was capable of taking values (Polit and Hungler, 1997). The study had basically two types of variables which include the dependant and independent variables.

1.9.1 Dependant variables

The variable that changes as the independent variable is manipulated by the researcher; sometimes called the criterion variable (Basavanthappa, 2007: 558). It is not manipulated, but used as it occurs. It is also called the effect, response, behaviour or out come that the researcher wishes to predict, study, or explain. Examples in this study include knowledge and practice.

1.9.2 Independent variables

The independent variable is a variable that is purposely manipulated or changed by the researcher; also called the manipulated variable (Basavanthappa, 2007: 560). The independent variable is that phenomenon in the experimental study used to test the hypothesis to determine the relationship. These influence the core problem. They stand alone and not dependant on any other. They are also called the cause, stimulus, experimental variable or treatment. Examples include; age, education and religion.

1.9.3 Table: 3 Variables and cut off points

Variables	Indicator	Cut off point
Knowledge	High level of knowledge	More than 9 correct responses
	Moderate levels of knowledge	8– 4 correct responses
	Little knowledge	3 – 1 correct responses
	Lack of knowledge	0 correct response
Practice	Good practice	1 or none practice risk factors
	Moderate practice	5 – 2 practice risk factors
	Bad practice	6 and above do practice risk factors

The above table tried to explain the cut off points on the variables which were the Knowledge and Practice of men towards BPH. The indicators were shown as high, moderate, little, and lack of knowledge while on practice the indicators included Good, moderate and bad practice.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

According to Mugenda O M and Mugenda A G (1999:29), the purpose of literature review is to determine what is already known about the problem being studied, in this case Benign Prostatic Hypertrophy, in order to avoid duplication and to come up with a comprehensive picture of the statement of knowledge on the topic. The review had given some clues to the methodology and type of data collecting tools which were used in the study. The focus of the study was to determine what knowledge and practice elderly men had on prostatic hypertrophy.

The literature used to review the information was collected from registers, surgical books from the library, on internet; and from doctors who have treated and operate on such men. The literature related to the research problem identified increased numbers of elderly men dying from hypertrophy of the prostate gland due to delay in seeking medical help. Acute urinary retention was the common complication and an indication for surgical intervention in about 25% to 30% of patients. Other common complications were urinal tract infection (UTI) and potentially sepsis secondary to UTI. Incomplete bladder emptying associated with partial obstruction results in residual urine providing favorable environment for bacterial growth causing Calculi to develop in the bladder because of the alkalinization of the residual urine (Lewis et al 2003).

The review was arranged according to the following subheadings; Global, regional and local situations.

2.2 Global situations

Epidemiology of BPH

Benign prostatic hyperplasia (BPH) was the most common neoplastic condition afflicting men and constituted a major factor impacting the health of the black-American males. This pathologic change was important because of the intimate

anatomic relationship between the prostate and the bladder neck. The association of BPH with aging had been demonstrated repeatedly in autopsy studies using calculated or actual weight, prostate volume, or histologic criteria. Using histological evidence, as stated by Randall (1931), Harbitz and Haugen (1972), they also found out that the incidence of definite or probable BPH exceeded 50% in men older than 50 years. That occurrence rised to 75% as men entered their eighth decade. **http://www.pubmedcentral.nih.gov/clinical.**

From a clinical standpoint, Lytton et al (1968; 99:639–645) found the incidence of BPH requiring surgical intervention to increase progressively with age to a maximum of 10.9 per 1000 men older than 80 years. Berry and associates (1984; 132:474–479) reviewed the major reports in the literature relating to the growth rate of human BPH with age. Their analysis implied that the growth of BPH was probably initiated in the third or fourth decade. "The calculated doubling time for the weight of BPH also varied with age, being 4.5 years in men aged 30 to 50 years, 10 years in men aged 51 to 70 years, and over 100 years in those older than 70 years. Community and practice-based studies suggested that men with lower urinary tract symptoms (LUTS) could expect slow progression of those symptoms over time. Among men with symptoms of BPH, rates of acute urinary retention requiring surgical relief ranged from 1% to 2% per year (Randall, A.1931) and (HarbitzTB, Haugen OA, 1972; 80:756–777)" **http://www.pubmedcentral.nih.gov/clinical.**

Environmental and hereditary factors also influenced the development of clinical BPH. The incidence of BPH was reported to be much lower in Chinese and Japanese men living in Asia than in white populations. Data on the racial background of patients subjected to prostatectomy in Hawaii also provided evidence suggesting a relatively lower incidence of BPH in Chinese and Japanese men than in white and black men as reported by Rotkin, ID (1976: 105) and Sanda MG, et al. 1994;152:115–119), who also supportd a genetic factor in the development of such lesions. Whatever its etiology, BPH greatly impacted the health of the male population of the United States. Indeed, associated bladder neck obstruction (BNO) and its squeal were responsible for more than 160,000 operations per year according to Holtgrewe, H. (2000. pp.232–245). **http://www.pubmedcentral.nih.gov/clinical.**

Another study was carried out by Dr T.T Marchie Department of Radiology University of Benin Teaching Hospital, Benin as reported in West African Journal of Radiology (April 2001 Vol. 8 No. 1) in determining the range of sizes of the prostate gland in adult males in Benin local environment, supra-pubic ultrasonography was used to provide acceptable range of normal prostate gland dimensions. Prospective random selections of 74 asymptomatic adult males were recruited and measurements of the maximum length, height and width of their prostate gland were obtained and the volume calculated. Subjects were selected, if they had no complaints related to the urinary system or signs of urinary tract disease. The transverse, AP and Longitudinal diameters range from 26- 54mm (+ 6.9mm), 24-51mm (+4.5mm) and 22-53 (+ 6.5mm) respectively, the volume ranges for the above three parameters were 41.8mm, 30.9mm and 34mm. The mean prostate volume obtained was 22.9cm.

The results were discussed with data obtained modalities among Caucasians **(http://mrcas.mpe.ntu.edu.sg/classroom/prostate_cancer.htm)**. From that study we find out that despite the prostate changing in size those men did not experience any symptoms and that could have made it very difficult for them to seek medical aid.

2.3 Regional situation

Epidemiology of BPH

Little or no information was out lined on the prevalence of BPH in the African contest. Little tests were conducted in the screening of the disease. It was estimated that by age 50, 50 per cent of men have some degree of BPH; the incidence increases to more than 75 per cent in men over age 80 **(http://www.emedicine.com/specialties.htm)**.

Risk factors identified as stated by (Rotkin, ID1976. p. 105) that contributing to the condition included age, as most common cancer occured in men over 50 years median age at diagnosis was usually 70 years. The blacks were commonly affected. Marital risk was looked at from the lowest to highest; single men and those castrated before puberty had lower risk of developing the condition, the risk increased in married men, widowed, and worse in the divorced. It was also observed in men that worked in rubber industry and the cadmium workers. Among environmental factors, a diet high in animal fat had been suggested as high risk factor (Kumar; 2003: 6)

2.4 Zambian situation

2.4.1 Epidemiology of BPH

The Zambian situation of prostate cancer (benign and malignant) was as illustrated in the tables below. The institution could not separated the benign from the malignant ones as they presented with similar symptoms. The information was collected at the cancer national register at the University Teaching Hospital in Lusaka (Zambia National Cancer Registry *Annual Aggregates 1999 To 2004)*

TABLE NO: 4 INCIDENCE OF BPH PER PROVINCE

CANCER	CENT	C/BELT	EAST	LUAP	LSK	NORTH	N/WEST	SOUTH	WEST	TOTAL	%
Prostate	0	2	28	0	235	1	5	11	1	283	6.1

Source: ZAMBIA NATIONAL CANCER REGISTRY ANNUAL AGGREGATES 1999 - 2004

TABLE NO: 5 CASES IN RELATION TO AGE

AGE	0- 14	15-24	25-34	35-44	45-54	55-64	65+	N/K	TOTAL	DISEASE %
Prostate Cancer	0	0	3	4	14	48	201	13	283	6.1

Source: ZAMBIA NATIONAL CANCER REGISTRY ANNUAL AGGREGATES 1999 - 2004

The information did not include all cases that occurred in Zambia as some were not reported. These cases were only those referred to UTH from different Provincial and District Hospitals. The highest figures were those from Lusaka (235), followed by those from Eastern Province (28) then followed by Southern Province (11) Sinazongwe inclusive. Most of Sinazongwe's elderly clients did not die in the Hospital. According to the Hospital death register 70% of men that died at home aged 70 and above were reported as having had problems in passing

urine for some time. Such cases were missed in the Cancer register as they were only indicated as brought in dead (BID). For those cases that had gone to the hospital and later referred, would have appeared under Monze District being the second referral level for Sinazongwe District. Among the elderly clients that were admitted to the hospital in Sinazongwe, 80% of them present with urinal disorders. Since the hospital had no Urology specialist, they are either referred to Choma or Monze where there were consultants to operate on the clients (Maamba Action plan; 2007)

2.4.2 Investigations

The inner zone which opened into the prostatic urethra was more prone to senile or hyperactive hypertrophy and in sonogram usually one appeared hypo-echoic. The study was meant to standardize prostate gland dimensions in Benin's local environment and to bring forward earliest suggestion of enlargement using the local dimensional references, which would call for adequate and further investigation (Stone NN; 1991: 5:251-254.4).

In order to differentiate benign from malignant prostate cancer, prostate specific antigen (PSA) which was a substance primarily produced by prostate gland, was considered as a very reliable tale sign in screening for prostate cancer. The acceptable normal range of (PSA) should be equal or below 4ng/ml. But studies had shown that 70% of men with (PSA) between 4ng/ml to 10ng/ml, did not have cancer and 20% of men who had cancer of prostate had (PSA) level in the normal range. The requirement for the use of (PSA) in determination of prostate cancer was to show comparative rising level of (PSA) at different time and in addition assessing the size of prostate. Enlarged prostate do go with high level of (PSA) but benign prostate hypertrophy do not show a rising titter (Catalona WJ, et al 1998; 279(19): 1542-1547). Some other tests like Trans-rectal digital palpation and use of basal filling defect in a contrast cysto-gram in assessing prostate enlargement were still very much in practice in Benin environment. The process was limited in accuracy, especially in getting reproducible assessment of size and parenchymal nature of the prostate. The other modalities currently in use for assessment of the prostate glands were trans-rectal sonography, trans-urethra sonography, sonographic guided prostatic biopsy/ Doppler studies, computerized axial tomography and magnetic resonance imaging with spectroscopy (Bazinet M, 1996; 47(6) 857-862).

However, these facilities were not readily assessable in the environment, hence the use of the suprapubic ultrasonography for the study. The modality was readily assessable and had been used previously in such assessment with comparable accuracy, as outlined by (Stone NN, et al 1991: 5:251-254.4) and (Charoulakis N, et al 1996; 21(1): 75-77) as transrectal sonography.

Acute urinary retention is often indicative of end-stage bladder decompensation requiring operative relief. The presence of multiple bladder stones, prominent narrow-necked bladder diverticula, overflow incontinence, or other signs of end-stage bladder decompensation are indications for therapeutic intervention. Gross hematuria is an infrequent but legitimate indication for so-called prostatectomy, particularly when the episodes are multiple and associated with clot retention or significant blood loss. "To allow for more accurate diagnosis and severity of BPH, various scoring systems had been developed by the American Urological Association (AUA). The system allowed patients to rate various urinary symptoms on a scale of zero to five. The total point score was then matched to the point range for mild, moderate, or severe BPH," (Lewis et al; 2003).

2.4.3 Diagnosis

The patients usually presented with urinal disturbance at the health center. BPH was assessed by conducting a general physical examination, which included rectal examination, laboratory examination of blood, urine, and renal function, X-ray examination included intravenous pyelogram and cystography and Instrumental examination, included catheterization and cystoscopy (Lewis et al 2000:1436).

The differential diagnosis of Benign Prostatic Pyperplasia (BPH), in which Bladder Outlet Obstruction (BOO) was evident was differentiated from Lower Urinary Tract Symptoms (LUTS), Prostate cancer, Prostatic Abscess and acute and chronic Prostatitis as indicated by (Kumar et al 2003:665). Rectal examination was a must for all individuals with suspected prostate problem. The rectal examination was not painful but just uncomfortable (some men do like it). The rectal examination allowed the doctor to feel the size of the prostate gland and any abnormality **http://www.ringsurf.com/**

2.4.4 Management

Obstructive and irritative symptoms that significantly interfere with the quality of life of the patient were common indications to consider prostatic surgery and other therapeutic approaches (Mc Connell JD et al 1998; 338:557–563. [Pub Med])

According to McConnell JD, Barry MJ, Bruskewitz RC, et al., Pub No. 94-0582: US Department of Health and Human Services, February 1994, studies estimate that 74 per cent of men would experience retrograde ejaculation after transurethral resection of the prostate (TURP). Surgery had also been linked with side effects of erectile dysfunction (in 14 per cent of men after TURP) and urinary incontinence (5 per cent). But studies were inconclusive as to whether the same rates of these problems would have occurred anyway in men not undergoing surgery. The benefits of surgery were long lasting, but because only part of the prostate was removed, some men would eventually need another operation. http://www.netdoctor.co.uk/menshealth/sexlife/erectiledysfunction.htm.

Some patients with urine retention, who couldnot endure an operation, had to have a permanent catheter. That cuold be placed through the urethra or through the lower abdomen into the bladder. But with a permanent catheter, the patient was at greater risk of cystitis http://www.netdoctor.co.uk/desease/facts/cystitis.htm.

To date, there are no large-scale studies which have compared the results of all the treatments for BPH. Treatment costs vary widely, and the availability of less invasive surgical options also varies considerably. Although surgery is more expensive than drug therapy, it is often more effective. **http://www.ringsurf.com/**

The large lucrative market has allowed the mushrooming of numerous herbal medicines postulated to cure BPH. The majority of these herbal agents are unregulated, their contents remain unknown and there was no data on their safety. Other agents included African plum, South African star grass, stinging nettle, and rye pollen. As with most herbal products, buyers were cautioned to beware. With the wide range of treatments available for BPH, the patient played a major role in his choice of therapy. Some patients were willing to live with minimal symptoms and side effects of a less efficacious therapy (i.e. drugs), whereas others considered residual symptom

to represent treatment failure and may want more aggressive treatment like surgery. Being knowledgeable about the disease process is essential according to **http://www.ringsurf.com/**

A 48-week, double-blind trial of 543 men with early BPH compared combined saw palmetto and nettle root against Proscar and found equal benefits according to Sokeland J. *BJU Int.* 2000;86:439-442.

The same combination proved superior to placebo in a 24-week, double-blind study of 257 men (Lopatkin N, Sivkov A, Walther C, et al. *World J Urol.* 2005 Jun 1).

http://www.auroahealthcare.org/yourhealth/healthgate/getcontent.asp

Depending on the size and general condition of the prostate gland, the patient may be observed to build the nutritional status. According to the Urologists at UTH, most of these patients under go surgery within one week of admission. For those individuals who have none or very mild symptoms, no treatment is indicated. For those with mild symptoms, one may also select to observe as the condition is known to improve on its own. However, all patients with moderate to severe symptoms would require treatment **http://www.aurorahealthcare.org/default.aspx**

2.4.5 Prevention

It was also discovered that the dissemination of research knowledge about cancer prevention and screening could play a pivotal role in reducing the BPH burden according to (Grunfield E, et al. 2004; 15: 503–10). One venue for such dissemination is the news media. The news media are an important source of BPH prevention and detection information and general cancer information as indicated by Meissner HI, et al (1992; 17: 153–65). However, while the reach and frequency of health news is well established, less is known about BPH prevention messages. Given the importance of the news media in influencing health behaviors, examining what information appears in cancer news could further our understanding of the decisions health journalists make and provide a basis for formulating strategies for maximizing BPH prevention promotion.

Little is known about current news coverage of cancer including BPH prevention and screening. The last comprehensive examinations were conducted by the National

Cancer Institute over two decades ago according to Freimuth et al. (1984; 34:62–73), and contemporary analyses discuss prevention and detection only in the context of certain types of cancer or specific public awareness campaigns.. Results of available studies show that prevention and screening receive relatively little attention in cancer news coverage. In 1980, Freimuth et al (1984; 34:62–73), discovered that prevention and detection were rarely discussed, and few stories mentioned ways to reduce these risks.

According to Dr. Jain a Consultant Surgeon at Choma District Hospital, states that at the moment no documentation has been done in Zambia on the issue of preventing the condition. Clients come to the clinic after experiencing the symptoms. The clients were usually seen in the late stage when they could no longer pass urine. In these cases even drug therapy was not possible and a catheter was usually inserted to relieve the bladder and prepare the clients for surgery.

2.5 Conclusion

The men's knowledge and practice towards BPH has many assumptions according to the above conducted studies. The problem of the condition being silent and showing its effect as acute retention of urine in the victims has not activated the stakeholders to provide preventative measures against the condition. The elderly men were left neglected as they reached their late years of life instead of enjoying life they ended up miserable and in pain. Studies were conducted to determine the size and type of management to relive the pain or reduce the size but no study was conducted to determine the preventative ways against the hypertrophy. Globally there are screening procedures put in place for these men but at National level there was no record on the sensitization of the condition so that men could be aware and take precaution.

The studies have shown that lack of screening and information on the condition could contribute to the problems men were facing. There is also evidence that there is a linear relationship between increasing age and benign prostate hypertrophy.

The introduction of prostate screening at least once every year would help identify the condition early and start the clients on drugs or the herbs that would reduce the size and aid easy urination. The men would also have a say in the management of their condition either to go for operation or be on drugs or just on observations until such a time when it was necessary to intervene.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

All research studies required that the investigator collected data and that is referred to as the research methodology. Data was collected through observation, questioning, and measuring.

3.1 Research Design

The research design is the plan, structure, and strategy of investigations answering the research question or is the blue print the researcher selects to carry out their study. According to Polit and Hungler, (1995: 139) research design is defined as the overall plan for addressing a research question, including specifications for enhancing the integrity of the study. The purpose of the study design was to help in the solution of the research problem and to maintain control by avoiding possible impingement of bias on the dependant variables that might affect the out come. The study looked at the following element in order to get the best out come;

- Description of subjects meant elderly men over the age of 55 years
- Observations of variables included knowledge and practice
- Measure of time looked at when the study took place, thus September 2008.
- Selection of setting was in Sinazongwe District.
- Role of the investigator was to interview and document responses from the elderly men.

A descriptive study design with both qualitative and quantitative dimensions was used. A descriptive study is a broad class of non experimental studies. It was a non interventional and cross sectional study design because there was no interventions or manipulations carried out on both the environment and the respondents. Its purpose was to observe, describe and document the aspects of a situation as it naturally occurred and sometimes to serve as a starting point for the hypothesis generated or theory developed. It was commonly used in the field of nursing research (Polit and Hungler 1995: 178). The study described

the relationship between the various factors (independent variables) and the knowledge and practice of men (dependent variables) towards BPH. The design addressed multivariate Knowledge and practice.

3.2 The Research Setting

The study was conducted in Sin azongwe District Southern Province. The District is off Lusaka Livingstone road at Batoka turn off about 88 kilometers towards the East. The District has 13 zones with several villages. This study location was chosen for convenience and accessibility. Respondents were chosen from a cross section of villages so as to have access to a cross section of elderly men from different villages and different background, status and experiences. The phenomenon was studied in the naturalistic way. This was to ensure validity, reliability and non bias of the results since the villages had different characteristics.

3.3 Study Population

A study population referred to the entire number of units under study (Treece and Treece; 1986:96). In this case the study population was all the elderly men from 55 years old and above in Sinazongwe District regardless of their social status, tribe, professional qualification, or political affiliations. Of these some were or not treated for Benign Prostatic Hyper trophy.

3.4 Sampling Selection

Sampling is a process of selecting a portion of the population to represent the entire population (Polit and Hungler, 1995:230). A probability sampling method called multi stage sampling was used to select and group the villages of the study units. The method was carried out in stages. First villages were clustered to allow enough representation of all the villages in the district and for them to have an equal independent chance of being selected. Since the number of the elderly men was not known, a networking sampling method was employed on all the selected villages until the required number of

respondents was achieved. The selected men were interviewed or given a self administered questionnaire to complete.

3. 5 Sample Size

A sample is a subset of a population selected to participate in a research study (Dempsey and Dempsey, 2000). The sample size comprised of 50 elderly men of Sinazongwe District. The sample was collected from a cross section of all the villages using random sampling. At least (5) respondents were sampled from the clustered and sampled 10 villages. The sample was big enough to include all the characteristics of the elderly men. A bigger sample was not possible because the funds and time to do the study were limited.

3.6 Data Collection Tool

Data collection is gathering of information needed to address a research problem (Polit and Hungler, 1995:639). A structured interview schedule or a self administered questionnaire was used to collect data from the respondents. "A structured interview schedule is the use of strategies that provide an increasing amount of control by the researcher over the content of the interview" (Burns and Groove; 1993:781)

The questionnaire had both open ended and closed ended questions and was divided into 3 sections (A, B and C). Section A elicited demographic data, section B elicited information on BPH knowledge, and Section C elicited data on Practices employed when one had BPH. This took place in the month of September 2008.

The following were some of the advantages and disadvantages of an interview.

3.6.1 Advantages of Interviews

- If the respondent did not understand one of the questions during the interview he requested for clarifications.
- The interview procedure served time, because he did not have to go through the process of returning the instrument.

- The method was flexible and the interviewer explored responses and tailored the interview to the situation.
- The interview allowed opportunity to appraise the validity as the interviewer was present to observe what was happening.
- The interviewer was in a position to observe the respondent's level of understanding. The information was used when interpreting data.

3.6.2 Disadvantages

- The interviewee had little or no choice in the date or the place of the interview.
- It was difficult to make comparisons of one interviewer's data with another interviewer data unless a rigid procedure was followed at all times.
- In a large research project there was need to hire interviewers and suitable persons were not readily available.

3.7 Data Collection Technique

The Questionnaire had a series of questions used to collect data about the respondents' demographic data, socio-economic data, perceptions and practice. It was administered to the selected elderly men.

Two research assistants were used for data collection. Data was collected over a period of 15 days and a range of three to five interviews were done per day. After getting consent, the Questionnaire was given to respondents. The questions were asked as listed in the interview schedule. Local language which was Tonga was used for better understanding. The responses were entered as given by the respondents. At the end of the interview, a go through check was done using the interview schedule to note for consistency in the answers given and for completeness of the interview schedule and then the respondents were thanked for taking part in the study.

3.8 Pilot Study

According to (polit and Hungler 1995:34), a pilot study is a small-scale version or trial run of the actual study the purpose of the pilot study is to obtain information for improving the project or assessing its feasibility.

A pilot study was conducted at UTH, which had similar characteristics as the actual population in which the study was to be conducted. The pilot study sample constituted 10% of the actual study sample. A sample of 5 elderly men above 55 years from male wards was randomly selected for the pilot study. The main reasons for conducting a pilot study were:

- To detect any errors in the interview schedule for the main study
- To assess the appropriateness and clarity of the questions.
- To test the feasibility, validity and reliability of the questionnaire.

3.9 Validity

Validity is the degree to which an instrument measures what it is intended to measure (Polit and Hungler, 1995:656). Validity was maintained by ensuring that all variables under study were covered in the interview schedule. Questions were clearly constructed to avoid ambiguity and were pre-tested. The questionnaires were constructed in the English language as a standard but some translations were done when dealing with illiterate subjects. The questionnaires were tested at the University Teaching Hospital (UTH) male wards. The wards had the same characteristics like Sinazongwe District. This was done in order to ensure that the instrument measured what it was suppose to be measuring. The supervising lecturer and other experts in the area under study checked the interview schedule.

3.10 Reliability

Reliability is the degree of consistency or dependability with which an instrument measures the attributes it is designed to measure (Polit and Hungler, 1997:651). The instrument should be able to bring out the accurate information whereby if the same instrument has to be used after some time, it

will produce the same responses. The same instrument was used to collect data from all the respondents and this helped to collect similar data.

3.11 Ethical and Cultural Considerations

Ethics are a system of moral values that is concerned with the degree to which procedures adhere to professional, legal, and social obligations to the research subjects (Polit and Hungler, 1997). Any study being conducted should meet the ethical and cultural considerations to be acceptable. Written permission was obtained to collect data for the pilot and actual study from the UTH Managing Director and Sinazongwe District Commissioner respectively. Verbal permission was sought from each and every respondent. No respondent was forced to take part in the study if he was not willing. The nature and purpose of the study was thoroughly explained to the respondents so that they were able to make an informed decision. The respondents were reassured of anonymity and confidentiality. Only numbers were used on the interview schedule not names.

3.12 Plans for Dissemination of Findings

Dissemination of findings entails the measures that were undertaken to make known to the relevant authorities and study subjects what the study had measured. If need be to improve or implement the findings.

A copy would be submitted to the Department of Post Basic Nursing in the School of Medicine. A copy of the study to the Ministry of Health and USAID for implementation of more partnership program in the community. Another copy would be sent to Sinazongwe District Health Office to enable the institution adopt such male gender sensitization. The copies would also serve as reference for other interested parties such as NGOs who might be interested in male reproductive health care.

3.13 Conclusion

This research project was conducted in Sinazongwe a District in Southern Province. The aim was to find out knowledge and practice of elderly men towards Benign Prostatic Hypertrophy and to prove the hypotheses whether men's delay in seeking medical aid was due to lack of knowledge or they were aware but preferred to use traditional remedies. The methodology and study design were selected according to the availability of time and funds. The out come of this study, would either support or dispute the hypothesis.

CHAPTER 4

4.0 DATA ANALYSIS AND PRESENTATION AND FINDINGS

4.1 Introduction

The aim of the study was to determine knowledge, and practice of elderly men towards Benign prostatic Hypertrophy in Sinazongwe District. The data was collected by networking as the researcher did not know the number of all the elderly men in the District. A structured interview schedule was employed in the process of data collection. This chapter looks at the presentation of the findings and data analysis of the study. Data was collected from 50 elderly men of Maamba community in Sinazongwe.

4.2 Data Analysis

"Data analysis is the process of categorizing, scrutinizing and cross - checking the research data," (Treece and Treece 1986). Data can only be useful when arranged in a meaningful manner, in order to be able to derive patterns of relationships (Polit and Hungler, 1995).

Data was collected using the structured interview schedule, which was edited for completeness and recorded accordingly on each interview day. Responses to closed – ended questions were coded using numbers, and open – ended responses were categorized and coded. Data was processed manually and entered on a data master sheet. This exercise included frequency counts, percentages and comparison of variables. Cross tabulations of variables was done to show relationships among variables in numerical terms.

4.3 Presentation of Findings

The findings of the study are presented in terms of frequency tables and bar charts. The tables and charts have been clearly numbered and carefully labeled with self –

explanatory headings. Cross tabulation was used to arrive at a positive explanation where there were more than two variables.

Section A: Demographic Data

Table 6: Distribution of respondents by age

Age range in years	Frequency	Percentage (%)
55 – 60	21	42
61 – 64	11	22
65 – 70	10	20
Above 71	08	16
TOTAL	**50**	**100**

Figure 01: Distribution of respondents by age

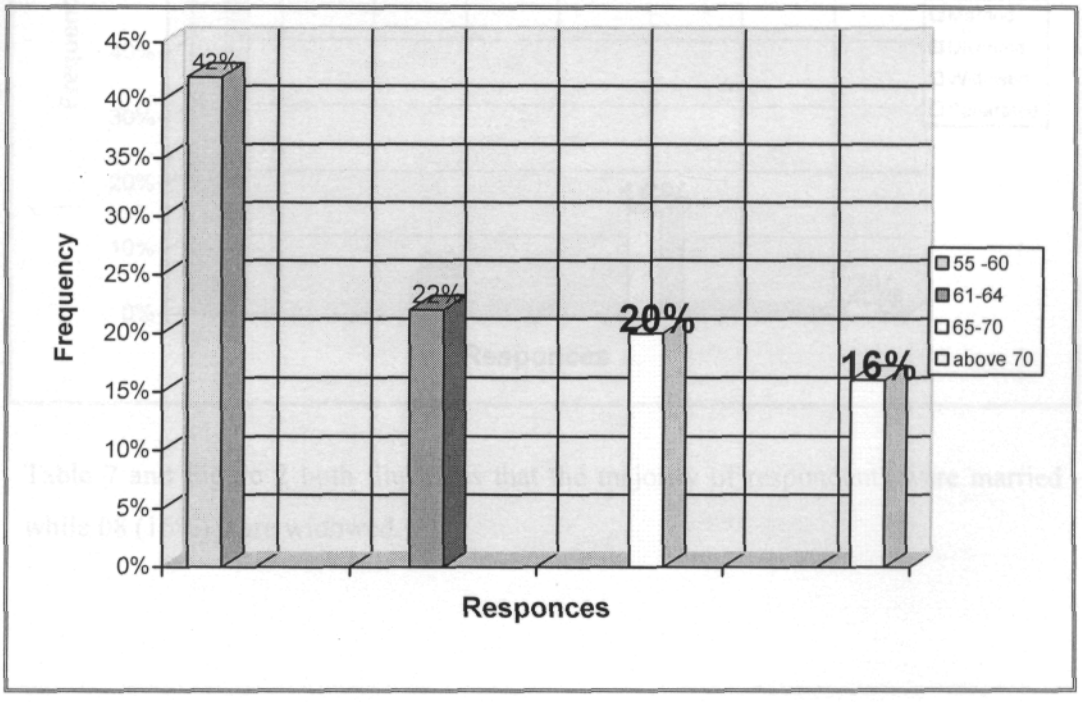


Table 6 and figure 01 both illustrates that majority 21(42%) of the respondents were aged between 55 – 60 years old.

Table 7: Distribution of respondents by marital status

Marital status	Frequency	Percentage (%)
Married	38	76
Divorced	03	06
Widowed	08	16
Separated	01	02
TOTAL	**50**	**100**

Figure 02: Distribution of respondents by marital status

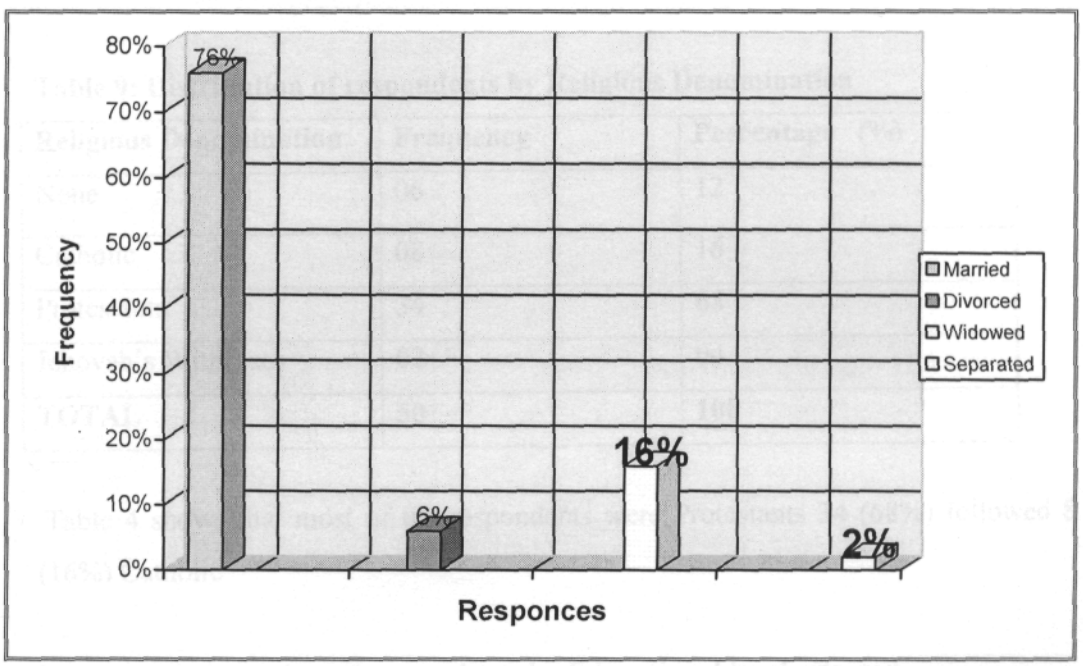


Table 7 and Figure 2 both illustrates that the majority of respondents were married while 08 (16%) were widowed.

Table 8: Distribution of respondents by number of years in marriage

Years in marriage	Frequency	Percentage (%)
11 - 20	01	02
21 - 30	18	36
31 - 40	19	38
Above 41	12	24
TOTAL	**50**	**100**

The majority 19 (38%) of the respondents were married for 31 – 40 years while 12 (24%) for above 41 years.

Table 9: Distribution of respondents by Religious Denomination

Religious Denomination	Frequency	Percentage (%)
None	06	12
Catholic	08	16
Protestants	34	68
Jehovah's Witnesses	02	04
TOTAL	**50**	**100**

Table 4 shows that most of the respondents were Protestants 34 (68%) followed 8 (16%) Catholic

Table 10: Distribution of respondents by Educational level attained

Educational level	Frequency	Percentage (%)
None	08	16
Primary Education	04	08
Secondary School	20	40
College	18	36
TOTAL	**50**	**100**

Majority of the respondents 20 (40%) reached secondary education, with 08 (16%) who had never gone to school.

Table 11a: Distribution of respondents by Employment history

Years in service	Frequency	Percentage (%)
Never been Employed	07	14
5 – 10 years	00	00
11 – 20 years	05	10
21 – 30 years	18	36
Over 31 years	20	40
TOTAL	**50**	**100**

Majority of the respondents 20 (40%) were in employment and served for 31 years while 07 (14%) had never been employed

Table 11b: Distribution of respondents by type of occupation

Type of occupation (n = 43)	Frequency	Percentage (%)
Miner	**36**	**84**
Teacher	**02**	**05**
Fisherman	**03**	**07**
Carpenter	**01**	**02**
Clinical officer	**01**	**02**
TOTAL	**43**	**100**

36 (84%) respondents who were in employment were miners

Table 12: Distribution of respondents by Tribal groupings

Tribe	Frequency	Percentage (%)
Tonga	37	74
Lozi	07	14
Tumbuka	04	08
Bemba	02	04
TOTAL	**50**	**100**

Table 8 shows that majority 37 (74%) of the respondents were Tonga

SECTION B - level of knowledge of benign prostatic hypertrophy

Table 13: Distribution of respondents by source of knowledge about BPH

Source of knowledge	Frequency	Percentage (%)
Nil	40	80
Friends	03	06
Hospital	06	12
Internet	01	02
TOTAL	**50**	**100**

Figure 03: Distribution of respondents by source of knowledge about BPH

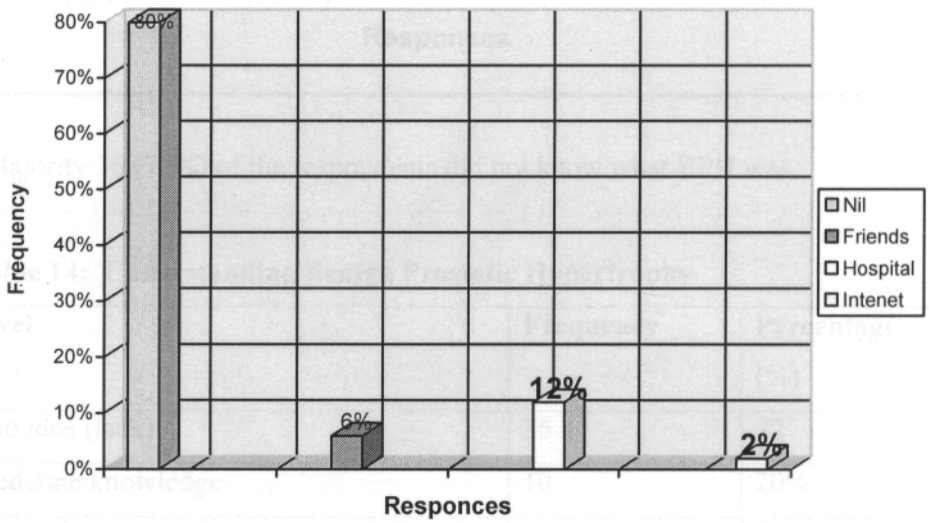
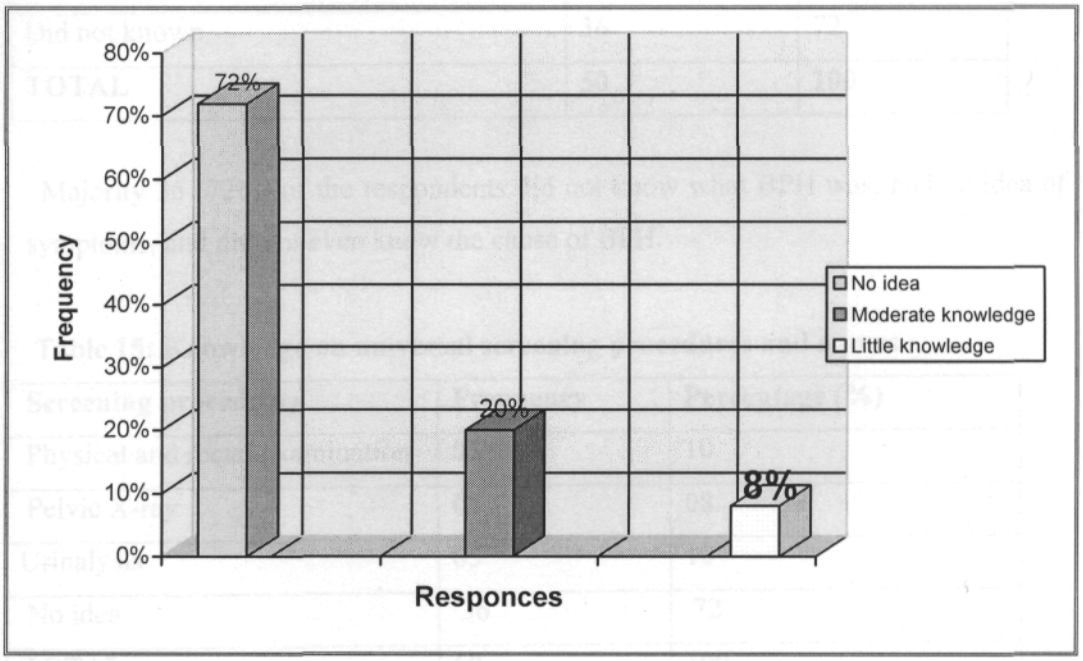


Table 13 and figure 03 illustrate that 40 (80%) of respondents did not hear about Benign Prostatic Hypertrophy. only 06 (12%) heard from the hospital

FIGURE 4: Understanding Benign Prostatic Hypertrophy



Majority 36 (72%) of the respondents did not know what BPH was.

Table 14: Understanding Benign Prostatic Hypertrophy

level	**Frequency**	**Percentage (%)**
No idea (lack)	36	72
Moderate knowledge	10	20%
Has little knowledge	04	08%
TOTAL	**50**	**100**
Signs and Symptoms	**Frequency**	**Percentage (%)**
Painful micturation	04	08
Retention of urine in old age	10	20
No idea	36	72
TOTAL	**50**	**100**
Causes of BPH	**Frequency**	**Percentage %**
Old age	12	24

Hereditary	01	02
Sexually Transmitted Diseases	01	02
Did not known	36	72
TOTAL	**50**	**100**

Majority 36 (72%) of the respondents did not know what BPH was, had no idea of symptoms, and did not even know the cause of BPH.

Table 15: Knowledge on universal screening procedures and names

Screening procedures	**Frequency**	**Percentage (%)**
Physical and rectal examination	05	10
Pelvic X-ray	04	08
Urinalysis	05	10
No idea	36	72
TOTAL	**50**	**100**

The majority 36 (72%) did not know of the screening method used, while the rest of the respondents14 (28%) had some ideas of the screening procedures.

Table 16: Knowledge of Radio or TV program that address male gender issues

Program aired	**Frequency**	**Percentage (%)**
On cancer	01	02
Sexual transmitted Infections (STIs)	02	04
No idea	47	94
TOTAL	**50**	**100**

Majority (94%) of the respondents did not know any radio or TV programs that aired male gender programs. However 2 (4%) had heard a program on Sexually Transmitted Illnesses (STI).

Table 17: Knowledge of BPH screening activities, if so which ones

Screening activity	Frequency	Percentage (%)
Physical examination	2	04
No idea	48	96
Total	**50**	**100**

The table shows that the majority 46 (96%) of the respondents did not know whether the hospital provided screening activities for BPH.

Table 18: Knowledge of any local remedies for treatment of BPH

Knowledge	Frequency	Percentage (%)
Heard of some	01	02
No idea	49	98
Total	**50**	**100**

The table shows that 49(98%) of the respondents did not know any local remedies used for treatment of BPH.

Table 19: Benefit of BPH screening on the individual, family and community

Individual	**Frequency**	**Percentage (%)**
Early identification of disease	18	36
Improved health	26	52
No idea	06	12
TOTAL	**50**	**100**
On the family	**Frequency**	**Percentage (%)**
Less hospital costs on visitation	09	18
Happy family	34	68
Productive family	07	14
TOTAL	**50**	**100**
Community	**Frequency**	**Percentage (%)**
Reduced morbidity	08	16
Productive community	42	84
TOTAL	**50**	**100**

Majority 26(52%) of respondents stated benefit of BPH screening at individual as improved health, 34 (68%) was for happy family, 42 (84%) for productive community.

Section C: Practice of men towards BPH

Table 20: Frequency of medical examination practice among the respondents

Medical examination done	Frequency	Percentage (%)
Never	48	96
Once	02	04
Total	**50**	**100**

Table 13 shows that most 48 (96%) of the respondents have never been medically examined for BPH routine screening

Table 21: Problems with urination and if so remedies being used

Response	Frequency	Percentage (%)
No	35	70
Yes	15	30
On remedies	00	00
TOTAL	**14**	**100**

Majority 35(70%) of the respondents had no problems with urination.

Table 22: Consultations done before visiting the clinic if urinal patterns changed.

Response	Frequency	Percentage (%)
Neighbor	10	20
Relatives including spouse	34	68
herbalist	05	10
None	01	02
TOTAL	**50**	**100**

Majority of the respondents 34 (68%) would inform their relatives if urinal patterns changed while 10 (20%) would inform a neighbor

Table 23: Steps taken when urination patterns changed and why

Step	Frequency	Percentage (%)
Seek traditional healer	05	10
Seek medical service from clinic	43	86
Stay at home	02	04
TOTAL	**50**	**100**
Why traditional healer (n = 5)		
First line of treatment	05	100
Why health center (n = 43)		
Proper diagnosis	10	23
For treatment	33	77
Why stay at home (n = 2)		
Nature to take its course	01	50
Wait and see next	01	50
TOTAL	**50**	**100**

The table above shows that respondents would seek help mostly at the clinic 43(86%) for treatment 33 (66%) and 2(4%) would rather stay at home

Table 24: Do men seek medical help for BPH?

Practice	Frequency	Percentage %
Yes	33	66
No	15	30
No idea	12	12
TOTAL	**50**	**100**
If NO why (n = 15)	**Frequency**	**Percentage %**
Not aware of facility	14	93
Prefer local treatment	01	07
TOTAL	**15**	**100**

The table shows that 33(66%) of the respondents would seek medical help for BPH and 15 (30%) would not.

Table 25: Fears related to visiting the health facility

variable	Frequency	Percentage (%)
No	50	100
Yes	00	00
TOTAL	**50**	**100**

All the respondents 50 (100%) expressed no fears of visiting the health facilities.

Table 26: Recommendations in order to improve BPH screening activities

Recommendations	Frequency	Percentage (%)
Provide awareness campaigns	41	82
Integrate BPH screening under MCH	09	18
TOTAL	**50**	**100**

41 (82%) respondents recommended provision of BPH awareness campaigns while 09 (18%) thought of integrating it into MCH activities.

Table 27: Level of Knowledge in Relation to Age

Knowledge of BPH	AGE				TOTAL
	55-60	61 - 64	65 -70	Above 70	
Moderate	04 (08%)	02 (04%)	03 (06%)	01 (02%)	10 (20%)
Low	01 (02%)	01 (02%)	01 (02%)	02 (04%)	5 (10%)
Lack of knowledge	16 (32%)	8 (16%)	06 (12%)	05 (10%)	35 (70%)
TOTAL	**21 (42%)**	**11 (22%)**	**10 (20%)**	**08 (16%)**	**50 (100%)**

The table shows that 35(70%) of the respondents lacked knowledge, and the age ranged between 55 – 60 years. 8 (16%) lacked knowledge, aged 61 – 64, as well as 05 (10%) who were above 70

Table 28: Knowledge of BPH in relation to educational level

Knowledge of BPH	EDUCATION LEVEL				TOTAL
	None (n=8)	Primary (n=4)	Secondary (n=20)	College (n=18)	**(n=50)**
Moderate	01(13%)	00(00%)	03 (15%)	03 (17%)	07 (14%)
Low	00 (0%)	00(00%)	03 (15%)	04 (22%)	07 (14%)
Lack	07(87%)	04(100%)	14(70%)	11(61%)	36 (72%)
TOTAL	**8(100%)**	**04(100%)**	**20(100%)**	**18(100%)**	**50(100%)**

The table indicates that 14 (70%) with secondary education lacked knowledge followed by 11 (61%) with college education

Table 29: Knowledge of BPH in relation to type of employment (n = 43)

Knowledge of BPH	Type of employment					TOTAL
	Carpenter n =01	C/ Officer n=01	Teacher n=02	Fisherman n=03	Miners n=36	n=43
Moderate	00	01(100%)	01(50%)	00	05(14%)	07(16%)
Low	00	00	00	03(100%)	03(08%)	06(14%)
Lack	01(100%)	00	01(50%)	00	28(78%)	30(70%)
TOTAL	**01 (100%)**	**01 (100%)**	**02 (100%)**	**03 (100%)**	**36 (100%)**	**43 (100%)**

Majority of the respondents 28 (78%) who lacked knowledge were miners

Table 30: Practice of respondents in relation to knowledge level

Practice	Knowledge level			Total
	Moderate	Low	Lack	
Good	10 (20%)	5(10%)	30(60%)	45(90%)
Poor	00 (00%)	00(00%)	5(10%)	05(10%)
TOTAL	**10(20%)**	**5(10%)**	**35(70%)**	**50(100%)**

Table 23 shows that majority 30 (60%) of the respondents who had lack of knowledge had good practice. while 5(10%) who had lack of knowledge had poor practice.

TABLE 31: Practice in relation to tribe

Practice	Tribe				TOTAL
	Tonga	Lozi	Tumbuka	Bemba	
Good	33 (66%)	07 (14%)	03 (06%)	02 (04%)	45 (90%)
Poor	04 (08%)	00 (00%)	01 (02%)	00 (00%)	05 (10%)
TOTAL	**37 (74%)**	**07 (14%)**	**04 (08%)**	**02 (04%)**	**50 (100%)**

33 (66%) who had good practice were the Tonga by tribe

TABLE 32: Practice in relation to employment type

Practice	Employment type (n=43)					TOTAL
	Miner	**C/officer**	**Teacher**	**F/man**	**Carpenter**	
Good	33 (91%)	01 (100%)	02 (100%)	02 (05%)	00 (00%)	38 (89%)
Bad	03 (09%)	00 (00%)	00 (00%)	01 (33%)	01 (100%)	05 (11%)
TOTAL	**36 (84%)**	**01 (02%)**	**02 (05%)**	**03 (07%)**	**01 (02%)**	**43 (100%)**

Majority 33 (91%) miners had good practice

Table 33: Practice towards BPH in relation to educational level

Practice toward BPH	EDUCATION LEVEL				TOTAL
	None	Primary	Secondary	College	
Good	03(06%)	04(08%)	20(40%)	18(36%)	45 (90%)
Bad	05 (10%)	00	00	00	05(10%)
TOTAL	**8(16%)**	**04(08%)**	**20(40%)**	**18(36%)**	**50(100%)**

20 (40%) of respondents with secondary education had good practice followed by 18 (36%) with college education.

CHAPTER 5

5.0 DISCUSSION OF FINDINGS

5.1 Introduction

The purpose of this study was to determine knowledge and practices of Benign Prostatic Hypertrophy among elderly men of Sinazongwe District. The sample consisted of 50 men who were retired and in the comfort of their homes. This chapter discusses the findings of the study and the implications to the Health Care System. Necessary recommendations were also made to different authorities accordingly.

5.2 Demographic characteristics of respondents

Majority of the respondents were aged between 55 – 60 years followed by 61 – 64 age groups the least group was aged 75 years and above. This was probably due to the fact that those age groups were among the miners who settled there after working for the mines. The sample was collected from the evidence that BPH was common in elderly men above the ages of 50 years (Harbitz and Haugen, 1972; 80:756–777).

More than three quarters of the respondents 36 (76%) were married which implied that they were sexually active and had stable relationships and homes apart from a few that had lost their wives due to natural causes. These men were at risk of developing BPH because the prostate gland was active. According to (Rotkin, ID1976. p. 105), marital risk was looked at from the lowest to highest; single men and those castrated before puberty have low risk of developing the condition, the risk increases in married men, widowed, and in the divorced. Looking at the data collected, despite the age, the widowed (16%) and separated (2%) were at a higher risk of suffering from BPH. The most risk factor in the married would be age which would lead to degeneration of the gland and cause the atrophy

Sinazongwe District has a mixture of tribes though the common language was Tonga. It was not surprising to find that more than one third of the respondents were Tonga because the area was Tonga land. Almost half of the respondents had secondary (40%) and college (36%) education. None of the respondents had been to the University. Educational level did not affect the knowledge levels of the respondents as seen in the results as those that had some idea were either through experiencing BPH and other information was from some body not necessarily from school.

Education is an important factor in understanding issues such as BPH as it helped people make informed decisions after reading about the subject.

Majority of the respondents were Christians from various denominations. Religion played an important role in what people believed even in terms of using local remedies. Most of the Christian denominations favored the use of hospital prescribed drugs only as opposed to traditional remedies. Zambia being a Christian nation and most of the Zambians being Christians, this probably explained why most (84%) the respondents were Christians.

Since most respondents were Christians, the church would enlighten them on the disease and associated risk factors. In the churches people were encouraged to stick to one marriage partner for life. That did not only help build family ties but also prevent sexual transmitted diseases that would predispose the men to BPH.

The educational level of the respondents ranged from none to college level. Table 10 showed that 42 (84%) of the respondents did go to school, out of which the majority 20 (40%) had reached secondary education only. That was so because in the first Republic education was free and many people had a chance to go to school as far as they could manage. This information would assist in the dissemination of information as the respondents would be aware of what one was talking about. Most of the least educated used experience to understand issues such as BPH and its practice in order to change from poor practice to good practice.

Some type of work predisposes men to BPH. For example the men that worked in rubber industry and the cadmium workers were at high risk. "Among environmental factors, a diet high in animal fat has been suggested as high risk factor" (Kumar; 2003: 6). Most of the respondents were miners who could have been exposed to high animal fat as they could afford such a diet.

For those that were never employed, they had no indication of precautions taken to help them know the screening procedures or good practice towards BPH.

Traditional practices included discussions among the males only on issues of concern or interest. The different tribes had no traditional herbs that they used to treat PBH conditions; they also had no special practices amongst themselves. The highest (74%) tribal grouping involved the Tonga since the study was conducted in their home land followed by the Lozi and others who came there seeking for employment. Tradition

also limited matters related to sex from being discussed across age groupings which could have made it possible for some members of society not to know the condition and not adopt good practices.

The respondents all lived within 5 kilometer distance from the nearest health facility; this implies they could access information early and adopt good practice towaeds BPH.

5.3 Knowledge Level of benign prostatic hypertrophy [BPH]

About 40 (80%) of those interviewed did not hear about Benign Prostatic Hypertrophy. Only 10 (20%) had heard from their friends, one nursed the father in hospital, another worked as a clinical officer and the other got it from the Internet. This could have been due to lack of sensitization by the hospital staff and according to the Ministry of Health the disease was not among the priority conditions despite its high prevalence rate "It was estimated that by age 50, 50 per cent of men have some degree of BPH; the incidence increased to more than 75 per cent in men aged over 80 years" (http://www.emedicine.com/specialties.htm Most of those men lived with the condition in the name of being old, which could have been prevented. Lack of knowledge would have made the men reluctant to visit the health facility as mostly the diseases were asymptomatic. From the Caucasians study, it was discovered that despite the prostate changing in size men did not experience any symptoms and that could have made it very difficult for them to seek medical aid.

. The men could not differentiate the differences between signs and symptoms of sexual transmitted diseases and BPH. Knowledge of the cause of BPH and the screening procedures to prevent the complications before occurring was important in that men would have worked towards seeking medical help.

5.3.1 Knowledge on universal screening procedures

The majority 36 (72%) did not know of the screening method used, while the rest of the respondents 14 (28%) had an idea of the screening procedures though they never went for screening. Routine medical examinations were done mostly for miners under silicosis. Most of them went to the hospital only when they were un well. That was because the health facilities did not expose the community to the functions of the

hospitals in full, such as open days where Doctors explain to their clients the facilities that were at their disposal.

5.3.2 Knowledge of radio or TV programs that addressed male gender issues.

The results showed that the majority (94%) of the respondents did not know of any radio or TV programs that aired male gender topics. However 3 (6%) had heard a program on either cancer of the prostate or Sexually Transmitted Illnesses (STI). That was so because the Ministry Of Health had a program "Your Health matters" on air but it did not specify on issues of BPH. On the other hand due to high poverty levels, most people do not own T.V. sets and for those that had Radios, the signal was poor due to hills since the District was in the valley.

5.3.3 Knowledge of whether the Hospital was providing BPH screening activities The majority 46 (96%) of the respondents did not know whether the hospital provided screening activities for BPH. Only 4% of the respondents indicated physical examination exclusive of rectal examination as the screening activity they knew. That was also due to lack of knowledge by the men and poor sensitization on the part of health workers

On knowledge of any local remedies for treatment of BPH, the results showed that 49(98%) of the respondents did not know any local remedies used for treatment of BPH. The only one who heard about it could not even recall the name. That was indicative that the men were not practicing the local remedies and could have accepted the condition as a natural aging process and could not do any thing about it.

Benefits of BPH screening on the individual, family and community were evidenced by the respondents appreciating health and would go for screening given a chance and the information required. According to table number 19, improved health was the desire of the respondents at individual level 26(52%) while 34 (68%) at family level it would benefit them a happy family. At community level, 42 (84%) it was believed that they could be productive if they were screened in time.

5.4 Practice of men towards BPH

Frequency of medical examination practice among the respondents as indicated in table number 20 that most 48 (96%) of the respondents had never been medically examined for BPH routine screening. Two (4%) were examined once after experiencing the signs and symptoms. That could have been due to asymptomatic

presentation of the condition. From Caucasians study we find out that despite the prostate changing in size these men did not experience any symptoms and this could have made it very difficult for them to seek medical aid (http://mrcas.mpe.ntu.edu.sg/classroom/prostate_cancer.htm).

Majority 35(70%) of the respondents had no problems with urination. Those that had some problems 15 (30%) were not even on treatment. This implied that they were comfortable and did not need any medical help. The urine stream could have changed the curve but they accepted it as normal. Mostly men were not keen at seeking medical help unless it affected their ability to have an erection or were in pain.

In case of change in urinal patterns, consultation was done before visiting the clinic. This was because family ties such as the sense of belonging influenced them to seek consultation. It is also expected traditionally to consult and is respected among the community. This could be the reason why 34 (68%) would inform their relatives for an opinion if they experienced some urinal problems. Though 5 (10%) would still seek help from the herbalist which could be due to the traditional up bringing

Considering steps to take when urination patterns changed and why, the respondents preferred to seek help mostly at the clinic 43(86%) for treatment which could be that they wanted to receive right treatment. Visiting the traditional healer was considered as first line of treatment by some respondents 33 (66%). People had faith in the traditional medicine men because they believed the men were inspired by God though we had the 2(4%) who would rather stay at home mainly due to lack of knowledge on what to do. Most respondents would seek medical help for BPH while those who would not 15 (30%), could be due to lack of knowledge that such facilities existed or that they preferred local remedies

All the respondents had no fears when visiting the clinics that could have been due to the good relationship created among the medical personnel and the community. The 41 (82%) recommended provision of BPH awareness campaign in form of pamphlets, workshops and public meetings.

5.5 Knowledge in response to other variables

Knowledge levels in relation to age revealed that 35(70%) of the respondents who lacked knowledge, ranged between 55 – 60 years. Those aged above 70 years were the least knowledgeable 5 out of 8 lacked knowledge. That could have been due to lack of information and were isolated from the younger groups who could have explained to them when the signs began. Knowledge of BPH in relation to educational level revealed that 36 (72%) of the respondents whether educated or not did not have knowledge of the disease. Those that went as far as primary school showed the lowest level of 04(100%) knowledge of the disease because they could not read or socialize with the learned to gather information from them. For those that had the information, either looked after their parents or obtained it somewhere else. That could indicate that the condition was not part of the syllabus in most educational institutions. Knowledge of BPH in relation to type of employment showed that majority of the respondents despite their employment type had no knowledge about the condition on average 45%, as mean of the 5 groups, had lack of knowledge on BPH. The miners scored 28(78%) because they were the majority. This implied that health services were not offered even at the mines where conditions like BPH could have been discussed for the benefit of the miners.

5.6 Practice in response to other variables

Practice of respondents in relation to knowledge level as shown in table 22 revealed that majority 30 (60%) of the respondents who lacked knowledge had good practice. It also showed that 5(10%) of the respondents who lacked knowledge also had poor practice. That could mean the respondents engaged in poor practice because they lacked knowledge once empowered, they would engage into good practice

Practice in relation to tribe revealed that the Tonga tribe was engage in good practice though 5 (10%) of them that had poor practice the Tonga tribe was the most 04 (08%). That was because the Tonga tribe was the indigenous group.

Practice in relation to employment type revealed the miners were engaged in good practice 33 (91%) and also poor practice 03 (09%) that could have been so because they were the largest group. The teachers and clinical officer displayed good practice at 02 and 01 (100%) respectively. This was because they were exposed to information and could understand the details of BPH. Practice in relation to educational level

revealed that educational level had relationship with the practice of the people, 100% of those that went to school would rather go to a clinic than seek traditional remedies. This implied that the men were enlightened and knowledgeable of what was good for them. Only those that never went to school had poor practice meaning they were only exposed to traditional remedies and the environment they lived taught that a traditional medicine man could help in such problems. The other reason could be lack of socialization with the literate.

5.7 Implications of findings to the health care system

5.7.1 Implications to Nursing Practice

The nursing care outcome was the result of a nursing intervention. From the study, the care given to BPH clients was not adequate. Despite 80% of the respondents not having an understanding of Benign Prostate Hypertrophy, only 20% had heard about the condition. This implied that nurses needed to give adequate information (IEC) to the clients about screening procedures for them to prevent and recognize these atrophies.

5.7.2 Implications to Nursing Administration

The study showed that majority (80%) of the respondents had not heard about the condition. Inadequate supervision of the Out Patient Department (OPD) screening team of health providers could have contributed to this result. Shortage of staff could also have contributed to the problem. Despite the problem of staffing, there was need for adequate planning for screening activities of all men above 55 years of age by qualified medical personnel at least once every year.

5.7.3 Implications to Nursing Education

One of the reasons for respondents having low knowledge about BPH could be inadequate knowledge about screening procedures by the medical providers, which included nurses. This implied that if the providers had inadequate knowledge, they might not be competent to provide the service. Instead, they ended up omitting the

examinations when doing the routine examinations when providing the service. Adequate knowledge and positive attitude towards BPH was therefore necessary for the nurses, which can be achieved by adequate education of the nurses during training and in service.

5.7.4 Implications to Nursing Research

The quality of care given to clients is an important factor in the determination of patient / client outcomes. No research had been done on BPH in Zambia. This result implied that it would become difficult to improve practice even on provision of BPH screening activities without evidence based knowledge. Research could show why people did not know much about the screening methods thereby direct providers and policy makers on what to do. It was therefore necessary that nurses took interest in taking up research in areas such as male gender problems and how they too could be helped.

5.8 Conclusion

The study sought to determine the knowledge and practice of elderly men towards BPH. The research was conducted in Maamba Ward of Sinazongwe District. The study yielded evidence that the level of knowledge among elderly men was very low (20%). Among the few respondents who were knowledgeable, educational level played a role as all of the respondents who were knowledgeable had secondary level or college level of education.

The study also revealed that the elderly men had no knowledge of BPH that made it impossible for them to seek medical help. The study also showed that out of the 15(100%) respondents who indicated that elderly men would not seek medical help for BPH, 14(93%) of them stated they were not aware of the services. From these findings the two hypotheses were accepted;

- Inadequate information on rectal examination and screening procedures for BPH leads to men not seeking routine medical examination.

- Lack of knowledge about the causes of Benign Prostatic Hypertrophy leads to delay in men seeking medical treatment.

Adequate information on BPH screening was needed to be provided to all male clients above 55 years so that they could decide on whether to use it or not. These findings had implications on the IEC system especially with reference to BPH screening. Health care providers should accept and provide information to all would be clients. Unless continuous IEC and sensitization was carried out effectively, elderly men would continue facing the challenges of urinal retention and death due to BPH complications.

5.9 Recommendations

The following are the recommendations in the light of the findings of the study;

5.9.1 Ministry of Health

- The Ministry of Health should ensure that; BPH screening facilities are made available in all health facilities offering medical and surgical medicine. Medical health providers have adequate information on BPH. Literature should also be made available for the clients.

- The Ministry of Health through the District Health Management Board should conduct quarterly evaluation to check if information is being disseminated to the elderly and young men and if the service was being provided. The reporting system should contain information on how many were screened quarterly.

- The Ministry of Health should work in conjunction with other Departments such as Zambia Broadcasting Services so that BPH screening is advertised on mass media for all men to know about it and make informed choices.

- The Ministry should facilitate for a much larger study; including rural areas to enable generalization of the findings and to evaluate the effectiveness of measures, which would be put into place. Integrating BPH in other program, such as MCH so that men also were screened and taken care of.

5.9.2 District and Hospital Management

- The management should ensure that BPH screening clinics are established and have adequate staffing and be provided with adequate supplies of equipment and screens for privacy for them to deliver quality service.
- The DHO management should also provide IEC materials needed for medical providers to teach about BPH. Sensitization campaigns about BPH should be carried out in strategic areas for the people to be informed.

5.9.3 Health Care Providers

- Health care providers especially nurses need to acquire adequate knowledge on BPH screening and other related information related to differential diagnosis in Zambia. Health care providers should make deliberate efforts to inform men about BPH.
- Adequate information should be provided to all men about the availability, use and benefits of BPH screening during public meeting, OPD IEC meetings, and general screening.

5.10 Dissemination of Findings

The study findings will be disseminated by submitting copies of the research project to the following;

- Department of Post Basic Nursing, UNZA
- The Medical Library, UNZA
- Ministry of Health Headquarters
- Sinazongwe District Health Office.
- Maamba Hospital Management Team

A dissemination workshop to disseminate the findings results to the Ministry of Health, the Sinazongwe District Health Office, Maamba Hospital, and Maamba Collieries Limited. The community will be informed of the research findings through IEC programs.

5.11 Limitations of the Study

Some of the limitations to the study were as follows: -

- The time allocated carry out the research and present the findings was not adequate because the research was being carried out alongside other courses.
- Subjected to walking through out the data collecting period as the funds to book transport to the areas where the respondents were was delayed.
- Very few studies were done on screening of BPH clients both in Zambia and other countries. This made it difficult to get literature to review and also to make comparisons with the findings of the study.

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APPENDIX 1:

INFORMED CONSENT

Dear Participant

My name is Kashumba Molly a student enrolled in the Bachelor of Science Nursing program in the Department of Post Basic Nursing at the School of Medicine, University of Zambia.

In partial fulfillment of the degree of Bachelor of Science at the University of Zambia, I am required to undertake a research project. My research topic is on Knowledge and Practice of men towards Benign Prostatic Hypertrophy (BPH).

The main objective of the study is to determine Benign Prostatic Hypertrophy knowledge and practice among elderly men above the age of 55 years.

You have been selected to participate in this study and I wish to inform you that participation in this study is voluntary and you are fee to withdraw at any stage of the study as you so wish. You will be interviewed in your home at a time convenient to you and you will be asked some questions about Benign Prostatic Hypertrophy knowledge and practice. The interview will take about 30 minutes to complete.

All the information given to me will be kept confidential and numbers will be used in place of names to maintain anonymity.

You will receive no direct benefits from the study or any monetary gain. The information you give will help develop a better understanding of the problem of Benign Prostatic Hypertrophy (BPH) and will be used by health planners and other organizations that have BPH on their agenda.

If you have queries please contact me on **phone # 0966839473**

I..... hereby called participant understand the guide lines of the study and I am willing to participate in the study.

Date..... Day of ..... Year.....

Signature / Thumb of respondent.....

Interviewer's signature.....

APPENDIX: 2 QUESTIONNAIRE

THE UNIVERSITY OF ZAMBIA

SCHOOL OF MEDICINE

DEPARTMENT OF POST BASIC NURSING

TOPIC:

A STUDY TO DETERMINE ELDERLY MEN'S KNOWLEDGE, AND PRACTICE TOWARDS BENIGN PROSTATIC HYPERTROPHY IN SINAZONGWE DISTRICT

Village name _____

Date of Interview: _____

Time Interview Started: _____

Time Interview Ended: _____

Duration of Interview: _____

Instructions to the interviewer

1. Introduce yourself to the interviewee.
2. Explain the purpose of the interview.
3. Get verbal consent from the interviewee.
4. Assure the interviewee of confidentiality and anonymity.
5. Do not write the name of the respondent on the schedule to ensure anonymity
6. Write the appropriate responses in the appropriate boxes provided.
7. Write the responses in the space provided for open ended questions.

1. **SECTION A: DEMOGRAPHIC DATA**

How old were you on your last birthday?

a. 55 – 60 years
b. 61 - 64 years
c. 65 – 70 years
d. Above 71 years

2. What is your marital status?

a. Married
b. Divorced
c. Widowed
d. Separated
e. Never married

3. If your have been married, how long have you been married?

a. 1 – 10 years
b. 11 – 20 years
c. 21 –30 years
d. 31 – 40 years
e. Above 41 years

4. What is your religious denomination?

a. None
b. Catholic
c. Protestant
d. Jehovah's Witness
e. Other (specify) _____

5. Have you ever attended school?

a. Yes

b. No

6. If yes to Question 5 what level did you attain?

a. Primary

b. Secondary

c. College

d. University

8. Have you ever been in active employment?

Yes

No

9. If Yes to question 8, How many years have you been in active employment?

a. 5 – 10 years

b. 11 – 20 years

c. 21 – 30 years

d. Over 31 years

10. What was your occupation?

a. Miner

b. Teacher

c. Businessman

d. Police man

e. Other (specify) _____

8. What is your Tribe? _____

9. How far is the nearest health facility?

a. Within 5 kilometers

b. 5 – 10 kilometers

c. 11 – 15 Kilometers

d. Above 16 kilometers

SECTION B: KNOWLEDGE OF BPH

10 Have you ever heard of Benign Prostatic Hyper trophy?

a. Yes

b. No

11. If yes, where did you hear about the Benign Prostatic Hypertrophy?

Friends

Hospital

Radio

Others specify_____

12. What do you understand by Benign Prostatic Hypertrophy?

_____

_____

13. How would you know you have a problem with your prostate?

_____

_____

14.. Do you know of the causes of BPH?

a. Yes

b. No

15. If yes, what are they?

_____

_____

_____

16. Do you know any Universal screening measures against BPH?

a. Yes

b. No

17. If yes, list two (2) Universal screening measures you know

_____

_____

18. Do you know of any radio or TV programs addressing male gender issues?

a. Yes ☐

b. No ☐

19. If yes, list the programs aired.

_____

_____

20. What are the advantages of BPH screening to you?

_____

_____

_____

21. What are advantages of BPH screening to your family?

_____

_____

_____

22. What are the advantages of BPH screening to the Community?

_____

_____

_____

23. Do you know whether your Hospital offers BPH screening activities?

a. Yes ☐

b. No ☐

24 If yes, which ones are being offered?

_____

_____

25. Do you know of any local remedies used for treatment of BPH?

a. Yes

b. No

26. If yes, state these remedies.

_____

_____

_____

SECTION C: PRACTICE

27. How often do you under go medical check up?

_____

28. Do you have any problems with urinating?

Yes

No

29. If yes, are there are remedies you use to improve your urination problems?

a. Yes

b. No

30. If yes to above question can you explain what the remedies do?

_____

_____

_____

31. Whom do you consult when your urination patterns change?

a. Friends

b. Neighbors

c. Herbalist

31. What steps do you take when urination patterns change?

a. Seek traditional medicines
b. Seek health services from health facility
c. Stay at home
d. others specify

._____

_____

_____

32. If your answer to question 31is (a) please explain.

_____

_____

_____

33. If your answer to question 31 is (b) please explain.

_____

_____

_____

34. If your answer to question 31 is (c) please explain.

_____

_____

_____

35. Do men seeking medical help for BPH?

a. Yes
b. No

36. If your answer to 35 is NO, please explain.

_____

_____

37. Do you have any fears when visiting your local health facility?

a. Yes

b. No

38. If YES to question 37, please state the fears.

_____

_____

_____

39. In your own opinion what do you think should be done in order to improve the BPH screening practices in the District

_____

_____

_____

_____

_____

_____

_____

THANK YOU FOR TAKING TIME TO ANSWER THE QUESTIONS.

THE UNIVERSITY OF ZAMBIA
SCHOOL OF MEDICINE
DEPARTMENT OF POST BASIC NURSING

Telephone: 252453
Telegrams: **UNZA**, Lusaka
UNALUZA 44370
Fax: +260-1-250753

P.O Box 50110
Lusaka

28th May, 2008

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

RE: REQUEST TO COLLECT DATA – KASHUMBA C MOLLY

The above mentioned is a BSC student of Science in Nursing in the Department of Post Basic Nursing. In partial fulfillment of the Degree programme, she is required to conduct a research. Kindly assist her with any relevant data on her topic ***"to determine knowledge of men toward benign hypertrophy of the protest gland)."*** and practice

Your assistance will be highly appreciated.

Yours faithfully,

Ngoma

C. M. Ngoma (Mrs)
HEAD, DEPARTMENT OF POST BASIC NURSING

University of Zambia
School of Medicine
Post basic Nursing
P O Box 50110
LUSAKA

14TH July 2008

The Executive Director
The University Teaching Hospital
P/B RW1X
LUSAKA

UFS: **The Head of Department**
Post Basic Nursing
School of Medicine
P O Box 50110
LUSAKA

UNIVERSITY OF ZAMBIA
DEPT. OF POST
14 AUG 2008
BASIC NURSING
SCHOOL OF MEDICINE

Dear Sir

SUB: **REQUEST TO UNDERTAKE A PILOT STUDY**

I write to request for permission to undertake a pilot study in the male wards of the surgical wing of the Hospital in the second week of August 2008. This is as part of the fulfillment of the requirement towards the Bachelor of Science Degree in Nursing.

I am a final fourth (4th) year student in the Department of Post Basic Nursing at the University of Zambia, School of Medicine. I am required to carry out a research entitled Knowledge and Practice of elderly men towards Benign Prostatic Hypertrophy. The pilot study is to test the research instruments.

Your assistance in this regard will be highly appreciated.

Yours faithfully

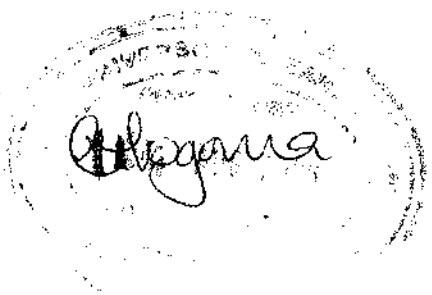
KASHUMBA C. MOLLY (RN /RM /DMS)

University of Zambia
School of Medicine
Post basic Nursing
P O Box 50110
LUSAKA

14TH July 2008

The District Commissioner
Sinazongwe District

UFS: **The Head of Department**
Post Basic Nursing
School of Medicine
P O Box 50110
LUSAKA



Dear Sir

SUB: **REQUEST TO UNDERTAKE A STUDY**

I write to request for permission to undertake a study in your district during the month of September 2008. This is as part of the fulfillment of the requirement towards the Bachelor of Science Degree in Nursing.

I am a final fourth (4th) year student in the Department of Post Basic Nursing at the University of Zambia, School of Medicine. I am required to carry out a research entitled Knowledge and Practice of elderly men towards Benign Prostatic Hypertrophy. The study will require collecting information by interviewing men aged 55 years and above using a questionnaire. I will need to visit about 10 villages to collect the required information.

After the information has been analyzed, I will come back to give you a feed back on the out come.

Your assistance in this regard will be highly appreciated.

Yours faithfully

KASHUMBA C. MOLLY (DRN /CRM /DMS)

APPENDIX 6: WORK PLAN

S. no	TASK TO BE PERFORMED	DATE	PERSONNEL	PERSONS/ DAY
1	Literature review	Continuous	Researcher and supervisor	Through out to Feb'08
2.	Finalizing research proposal	May to August, 2008	Researcher and supervisor	6 weeks
3.	Data collection tool	August, 2008	Researcher and supervisor	2 days
4.	Pilot study	22nd August, 2008	researcher	1 day
5.	Data analysis pilot	25th to 26th August, 2008	Researcher	2 day
6.	Amendment tool	27th August, 2008	Researcher	1 day
7.	Data collection Actual study	September, 2008	Researcher and research assistant	15 days
8	Data analysis	October, 2008	Researcher	30 days
9.	Report writing	November 2008 to Dec, 2008	Researcher	60days
10	Draft report writing	December 2008 to January, 2009	Researcher	35 days
11.	Finalize of report	January 2009 to February, 2009	Researcher and supervisor	35 days
12.	Monitoring and evaluation	May 2008 to February 2009	Researcher	9 months
13.	Dissemination of results	March 2009	Researcher	14 days

APPENDIX 7: GANTT CHART

TASK PERFORMED	RESPONSIBLE PERSON	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR
Finalize research proposal	Researcher	←	—	—	→							
Literature review	Researcher	←	—	—	—	—	—	—	—	—	→	
Pilot study	Researcher				←	→						
Data collection	Researcher					←	→					
Data analysis	Researcher						←	→				
Report writing	Researcher							←	→			
Submission of draft report	Researcher									←	→	
Submission of research report	Researcher											↔
'Dissemination of results	Researcher											↔
Monitoring and evaluation	Researcher	←	—	—	—	—	—	—	—	—	—	→

APPENDIX 8: STUDY BUDGET

S.no	ITEM	QUANTITY	COST	TOTAL COST
1	**Research Expenses**			
	- Lunch allowances	10	50,000	500,000
	-Research Assistant allowance	10	50,000	500,000
	- Driver	10	50,000	500,000
	Training research assistant	02	10,000	20,000
	-Sub Total			**1,520,000**
2	**Field work Travel Expenses**			
	-Transport (local travel) fuel	100 liters	9,000	900,000
	- Oils and lubricants	5 liters	20,000	100,000
	Sub total			**1,000,000**
3	**Secretarial services**			
	Flash disk (USB)-1G	1	250,000	250,000
	Typing and printing proposal	50	3,000	150,000
	Typing and printing questionnaire	9	3,000	27,000
	Photocopying questionnaires	585	3,000	1,755,000
	Typing and printing draft report	150	3,000	450,000
	Typing and printing final report	900	3,000	2,700,000
	Binding final reports	6	50,000	300,000
	Sub total			**5,632,000**
4	**Stationary**			
	Ball pens	4	500	2,000
	Pencils	4	200	800
	Rubbers	2	500	1,000
	Tippex	2	4,500	9,000
	Note books	3	2,000	6,000
	Stapler	1	60,000	60,000
	Staples	1 box	10,000	10,000
	Scientific calculator	1	120,000	120,000
	Perforator	1	65,000	65,000
	Spiral binders	2	3,000	6,000
	Front and back hard covers	4	2,000	8,000
	Flip Chart	2	5,600	11,000

	Markers.	6	2,500	15,000
	Sub total			**313,800**
5.	**Dissemination Workshop**			
	- Rental of premises	2*5 hours	20,000/hr.	200,000
	- Transport	15 liters	9,000	135,000
	-Stationary	20	10,000	200,000
	-Production of research copies	2*150	3,000	900,000
	Sub total			**1,435,000**
6	**Miscellaneous Expenses**			
	Contingency fund 10%			99,008
	GRAND TOTAL			**K 9,999,808**

Budget justification

Stationery

The 4 reams of paper will be for the printing and photocopying of the research proposal, questionnaires, draft report and the four (6) final research reports.

The memory stick will be used for storage of data. The pens and pencils will be used for writing while the correction fluid and eraser will be used for correcting any mistakes. The spirals and transparencies will be used for binding the research proposals. The flip chart will be used for drawing up the data master sheets as well as dissemination of information.

Secretarial Services

Typing and printing of the questionnaire costs K3, 000 per page. Typing and printing of the 6 reports, binding of each research report costs K 50, 000 a copy and 6 copies are required to be handed in at the end of the project.

Field Travel Expenses

Lunch allowance will have to be paid to the investigator while she collects data. Transport costs include fuel as there are no taxes within the district so there will be need to book a vehicle that will use fuel to transport researcher and her team to the

villages and back daily. An amount equal to 10% of the total budget will be for the unseen circumstances and for possible inflation.

Dissemination of information

In order to disseminate the results to the stake holders, political leaders and hospital management, a hall under conducive environment will be booked. This will be done in March 2008 in the Council Chamber in Sinazongwe.