

**PERCEPTIONS OF CATARACTS AND CATARACT SERVICES
OF ELDERLY PERSONS IN MATHANGWANE, BOTSWANA**

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SUBMITTED TO THE UNIVERSITY OF CAPE TOWN

In partial fulfilment of the requirements for the degree

MASTER OF SCIENCE in NURSING

DIVISION OF NURSING AND MIDWIFERY

School of Health and Rehabilitation Sciences

Faculty of Health Sciences

Date of Submission: 27th November 2008

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Date

ACKNOWLEDGEMENTS

I would like to express my sincere appreciation to the following people who supported me in completing this study.

- Mathangwane clinic staff for their support and assistance.
- The research participants who entrusted their opinions or views and the trust and openness they had in sharing their views.
- My supervisor, Una for her patience, support and guidance.
- To my co-supervisor, Pat. Thank you for unlocking the world of qualitative research for me and assisting me to design the study.
- My mother, for the support she gave in taking care of my one and only daughter Faith during my absence. This is one for you and I will love you for ever.
- My friend Lindiwe whose support, love and encouragement was always there to make the long road more bearable.
- My loving daughter, Faith who gave me strength, who enriched my life and gives it so much more meaning. Thank you for creating the necessary space for me to complete my dream, despite leaving you when you were a year old.
- To my Lord who granted me so much undeserved strength, wisdom, power to realise this dream and make it a dream come true.

This thesis is dedicated to my loving daughter Faith

ABSTRACT

Background: Cataract is the leading cause of blindness globally. In Botswana about 60% of blindness is due to cataract. Health services in Botswana are free, as are cataract services. Despite the free health services offered, the Batswana do not fully utilize the available eye care services especially the cataract services. Many Batswana access health care in public hospitals, where patients may have to wait for long periods for clinic appointments and surgery.

Research question: What are the perceptions that elderly persons in Mathangwane village in Botswana, have of cataracts and cataracts services?

Aim: To explore and describe the perceptions of elderly persons in Mathangwane about cataracts and cataract services.

Objectives:

1. Explore and describe elderly persons' perceptions of cataracts;
2. Explore and describe elderly persons' perceptions of cataract services;
3. Explore reasons for use and non-use of current cataract services.

Methods: Qualitative exploratory descriptive methods were used. A qualitative study design with purposeful sampling was used to identify participants for interviews and focus group discussion. Semi-structured interviews with seven participants aged sixty-five years and older with diagnosed cataract as well as a focus group with six of the seven participants were conducted. Data was analysed using a content analysis approach.

Results: Five themes emerged from the interviews and a focus group discussion:

- i. Cataract as the 'spider web';
- ii. Curing cataract with traditional herbs;
- iii. Cataract a problem of the elderly caused by modern food;
- iv. The burden of cataract blindness: 'mealie on the fire';
- v. The ambivalent voice of elderly persons about cataract services.

Conclusion: Findings from this study show that the participants had a general understanding of what cataract is and they had a particular description for this. Both positive and negative feelings were expressed in relation to the services available. Although cataract surgery was perceived to restore vision a major concern of the elderly persons was in relation to delays they experienced while waiting for the cataract to fully mature. Despite the free services offered at community level there is a great need for affordable and accessible transportation services for elderly persons utilising the cataract services.

DEFINITIONS

- Cataract:** Baltussen, Sylla and Mariotti (2004:238) define cataract as the clouding of the lens of the eye that causes loss of vision.
- Blindness:** Dandona and Dandona (2001:1) define blindness as a presenting distance visual acuity of <3/60 in the better eye.
- Focus groups:** Kitzinger (2005:56) defines focus groups as group discussions organized to explore a particular set of issues.
- Perceptions:** Robbins (1996:132) defines perception as a process by which individuals organize and interpret their sensory impressions in order to give meaning to their environment.

ABBREVIATIONS

AIDS- Acquired immune deficiency syndrome

FDA- Food and Drug Administration

FG- Focus group

FWE- Family Welfare Educator

HIV- Human immune deficiency virus

MOH- Ministry of Health

UNAIDS-United Nations and AIDS

VA- Visual acuity

WHO- World Health Organisation

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CHAPTER ONE

1.0 Introduction

“Millions of older people have rejoiced at having made it through to the New Millennium. For millions of others, the New Millennium is no different to the old as they continue to bear the burden of poverty, conflict and disease. We have an individual and a collective responsibility to replace despair with hope, to build a caring society as part of a caring world. Older people in our society deserve no less” (Dr Zola Skweyiya, Minister of Social Development, South Africa 2002:6).

Globally cataract is the leading cause of blindness. There are an estimated 6370 adults aged 50 years and older who are blind in Botswana (Nkomazana, 2007:9). Of these persons, it is estimated that 60% of the blindness is due to cataract (Botswana Press Agency, 2004). A study conducted in Mmankodi, Botswana by Clausen, Sandberg, Ingstad and Hjortdahl (2000:61) identified the most frequent health problems as being the musculoskeletal system and eye diseases which included cataract and blindness. A national survey conducted by Nkomazana (2007:9) estimated that 46.9% of the main causes of blindness in Botswana were due to cataract. Furthermore, this national survey indicated that the age and gender standardised cataract surgical coverage for vision at <math><3/60</math> was 66.5% for persons and 40.9% for eyes.

Botswana, like other developing countries, is aiming to achieve Vision 2020 targets to eliminate avoidable blindness. For this goal to be achieved, the country is aiming to reach all elderly persons who are the most affected by cataract. After gaining independence, Botswana inherited a health service that was predominantly curative and urban based (Denill, King, Lock & Swanepoel, 1995:460). Furthermore, primary health care was adopted as the main strategy for health care using a comprehensive approach so that community development was addressed. Like any other health services in Botswana, cataract services are free, therefore people are encouraged to utilize these services that are offered in government health facilities to prevent blindness due to cataract. Although these services are free the utilization of these services is low. According to Nkomazana (2007:9) the majority of those found blind were due to operable cataract. Furthermore, the reasons for not seeking cataract surgery were due to lack of awareness of the presence of cataract, lack of escorts and fear of the operation.

This could imply that the Batswana are not making use of available cataract services. A study conducted by Rotchford, Rotchford, Mthethwa and Johnson (2002:288) in South Africa revealed that provision of affordable and accessible cataract surgery for the blind and severely visually impaired members of a community does not guarantee that it will be taken up. The present study was carried out to explore perceptions elderly persons in Botswana have of cataracts and cataract services.

1.1 Background

Botswana is a small landlocked country sharing borders with Zimbabwe, South Africa, Namibia and Zambia. Botswana's population is mainly concentrated on the south eastern side of the country (Ministry of Finance and development planning, 2003:4). The country has approximately 1.7 million people (Central Statistics Office, 2001). In 2003 the population of Botswana was estimated by the United Nations (UN) at 1 785 000 (<http://www.nationsencyclopedia.com/Africa.Botswana-POPULATION.html>). Of this population 4% was over 65 years of age. Furthermore, in 2003 there were 96 males for every 100 females in the community.

The Botswana health services have adopted the primary health care approach, also to achieve its Vision 2016 goal, namely that all the Batswana should have access to good quality health facilities, including both preventive and curative services within a reasonable travelling distance by the year 2016. Even though Botswana is doing well with the primary health care approach, to date there are no policies or standards on the role of ophthalmic health care professionals and the rendering of eye care services despite the need and the call for the elimination of blindness by the World Health Organisation.

The recently formulated Vision 2020 programme is still under review. Although unpublished it has identified its overall goal as reducing the prevalence of blindness from 3.7% to 1.5% in adults by the year 2020 and the national prevalence to less than 0.5% by the year 2020 (Botswana National Prevention of Blindness Vision 2020 Five Year Plan: Unpublished). Furthermore, the paper identified the following objectives with regard to cataract and the target is towards eliminating avoidable causes of blindness by 2020.

- To increase the cataract surgical rate from 1600 to 2000 by the end of 2007.

- To have 99% of all surgery as extra-capsular extraction with intra-ocular lens implantation by December 2007.
- To have 80% of patients with presenting vision of 6/18 or better two months after surgery by December 2008.

Health remains an integral part of the pillars of the long-term vision of Botswana Vision 2016, the overall goal of which is to have a healthy nation that is fully involved and can contribute meaningfully to the country's development (Ministry of Finance and Development Planning, 2003:305). Botswana is a member of International Organizations such as the United Nations and the World Health Organisation. Nevertheless the country is challenged in achieving the global call for preventing and eliminating avoidable blindness as advocated by Vision 2020. Botswana has an estimated prevalence of 1.4% blindness due to cataract (Javitt & Wang 1996:161). Cataract blindness, particularly among elderly persons, has profound human and socio-economic consequences at all levels, that is, individual, community and national level.

This study explored how elderly persons perceive cataract blindness, as this data may enable the planning of eye health promotion strategies that could help reduce blindness within this population. The findings derived from this study may help policy makers and service providers make services culture sensitive which is an important factor in planning health care for elderly persons. To develop strategies to improve the health status of older persons and enhance their potential as providers of traditional and cultural knowledge and as caregivers, more information is needed about older persons' health and health risks (Clausen, Romoren, Rossow, Ingstad, Molebatsi & Holmboe-Ottesen 2005:1).

Ageing can be defined as the life-long process of progressive change in biological, psychological and social structures of a person (Stein, 1999:1). The ageing population usually refers to those aged 60 years and above. Blindness is a disease with severe economic repercussions and adversely affects the productivity of the country (Bhagwan, Rastogi, Malik & Dhull 2006:1). Furthermore, cataract blindness, in itself, is a public health problem of major proportions in the developing world.

1.2 Problem Statement

Botswana has an estimated prevalence of 1.4% blindness due to cataract that affects mainly the elderly, but it is not known why this group does not utilize these services which are provided at no cost to the consumer.

1.3 Research question

What are the perceptions that elderly persons in the Mathangwane village in Botswana, have of cataracts and cataract services?

1.4 Aim

The aim of the study was to explore and describe the perceptions of elderly persons in Mathangwane about cataracts and cataract services.

1.5 Specific objectives

The study set out to:

1. Explore and describe elderly persons' perceptions of cataracts;
2. Explore and describe elderly persons' perceptions of cataract services;
3. Explore reasons for use or non-use of current cataract services.

1.6 Relevance of the study

Having knowledge of the perceptions that health care consumers have of cataracts and cataract services could be of benefit in planning effective ophthalmology services for Botswana since little is known about this aspect. If more attention is given to healthcare consumers' perceptions of cataracts and cataract services, the sight of the Batswana who are at risk of cataract may be preserved. Preserving the sight of elderly persons is of benefit to the individual and to the public. Obtaining information on what people know and do in relation to ocular disorders is an important aspect in planning visual loss prevention programmes and for implementing health care measures.

1.7 Assumptions

If cataract services were more culturally sensitive, taking into account peoples' understanding and perceptions, services should be more acceptable. If cataract services are brought closer to the people, utilisation of services should improve.

1.8 Summary

In Botswana, as in other countries worldwide, cataract is the leading cause of blindness. The study aims to explore and describe elderly persons' perceptions of cataract and cataract services in Mathangwane, Botswana. Knowledge of eye care perceptions and services could be of benefit in planning ophthalmology services in Botswana. The following chapter describes the literature review in relation to cataract and cataract services in sub-Saharan Africa and globally.

CHAPTER TWO

2.0 Literature review

This chapter presents literature on the following topics: cataract, prevalence of cataract, cataract services, perceptions and barriers to the use of cataract services. Due to limited published literature about cataract services in Botswana the literature presented here comes from countries in sub-Saharan Africa and globally.

2.1 Cataract

Cataract is the most common cause of vision impairment among the elderly (Quillen, 1999:1). Moreover, vision loss among elderly persons is a major health care problem. Kantharaju and Bhat (2007:173) observe that blindness or the loss of sight is one of the serious misfortunes in human life. Approximately one person in three has some form of visual impairment by the age of 65. Baltussen *et al.* (2004:238) state that although cataract results from many conditions, the most frequent cause is the natural ageing process, but they identified other causes of cataract being due to injury, chronic eye disease and other systemic diseases such as diabetes. Pokhrel, Smith, Khalakdina, Deuja and Bates (2005:702) reported that there was an association between cataract or blindness and exposure to indoor smoke from household use of solid biomass fuels such as animal dung, wood and crop remedies. Furthermore, the authors reported that there is evidence that smoke can induce oxidative stress and deplete plasma ascorbate, carotenoids and glutathione, which provide antioxidant protection against cataract formation.

Cataract can take from a few months to several years to develop and can affect both eyes at the same time (Baltussen *et al.* 2004:238). Furthermore, surgery to remove the opacified lens is the only effective treatment for cataracts and that neither diet nor medications have been shown to stop cataract formation. Temporini, Junior, Jose and Holzchuh (2002:342) observe that cataract is the main cause of blindness that can be treated by means of a rather safe and low cost surgical procedure. At a symposium for The Women's Task Force, Courtright (2003) stated that among the quality of life issues, good vision is paramount as visual impairment which is more common than people realize, significantly decreases the ability to live independently and to function socially. The devastating effects of HIV/AIDS

on the social functioning of elderly persons who may be cataract blind are, amongst others, increased social responsibility for the young who are left orphaned. In Botswana it is estimated that 120000 children had lost their parent(s) to AIDS by the end of 2005 (UNAIDS, 2006). HIV/AIDS is striking at the heart of family and community support structures for the old and young, and is leaving a whole generation of children to be brought up by their grandparents (HelpAge, 2003:83).

2.2 Prevalence of cataract

Globally cataracts remain the leading cause of blindness affecting approximately 18 million persons (Murtha & Cavallerano, 2007:13). Cataracts are the major cause of blindness and severe visual impairment leading to bilateral blindness in an estimated 20 million people worldwide (Baltussen *et al.* 2004:338). Furthermore, in developing countries 50-90% of all blindness is caused by cataracts. More than 82% of all blind people are 50 years and older (Resnikoff, Pascolini, Etya'ale, Kocur, Pararajasegaram, Pokharel & Mariotti, 2004:844). Furthermore, female/male prevalence ratios indicate that women are more likely to have a visual impairment than males in every region of the world.

2.3 Cataract services

Cataract is by far the major cause of easily curable blindness worldwide (WHO, 2000:4). Furthermore, there is no known effective means of preventing the most common forms of cataract, and all efforts have to be made to provide surgery to all those in need. Baltussen *et al.* (2004:339) argued that the aim of cataract surgery is to rehabilitate blind or visually impaired people by restoring their sight to normal or as near to normal as possible. Baltussen *et al.* (2004:339) identified types of surgical intervention, the first being intra-capsular cataract extraction using aphakic glasses. This procedure is described as a technique whereby the whole lens is removed from the eye and post-surgery special eyeglasses are provided to patients to restore sight. The second intervention is the extra-capsular cataract extraction with the implantation of a posterior chamber intraocular lens. The lens and the front portion of the capsule are removed and then replaced with an artificial lens (Baltussen *et al.* 2004:339).

According to Ashaye, Ajuwon and Adeoti (2006:887) in their study conducted in Nigeria, the majority of health facilities providing eye care services are located in the urban areas leaving many rural areas underserved. Vaidyanathan, Limburg, Foster and Pandey (1999:104), reporting on their study in India, found that the concentration of service providers is in major cities and towns, whereas people who need cataract surgery, are mostly found in villages. This results in inadequate provision of services to those who are poor and live in rural areas. Temporini *et al.* (2002:342), in their study conducted in Brazil, reported that the community's access to cataract surgery is seen to be restricted both by the health services' availability at the local level and patients' attitudes. Furthermore, cataract blindness prevention relies on providing the community the access to specialized care services and their adoption of health oriented behaviours. Access to surgery should be facilitated, eliminating obstacles related to health care costs and geographical distance (Temporini *et al.*, 2002:347).

Lewallen and Courtright (2006:59) reported that it often surprises people, but it is no secret to eye care health workers in poor countries that patients who live in these countries often do not make use of existing services. It has been assumed that there is poor access to information about the causes and treatment of cataract in the cataract blind and when some information on these aspects is available, they do not know where to go for surgical services (Bhagwan *et al.*, 2006:1). In order to make cataract surgery more acceptable, affordable and within the reach of patients, a definite propaganda campaign has to be made available to the masses. People are to be told more and more about its benefits and only then can the ever increasing incidence of cataract blindness be curbed. Vaidyanathan *et al.* (1999:107) reported that when patients who come for treatment are told to wait this indicate that either the capacity of the providers to take care of the increased demand is limited or the VA indication for surgery is too low.

2.4 Perceptions

Elderly people are usually cautious and conservative; they tend to distrust new and unfamiliar things (Wormald 1999:6). Elderly persons are aware of their vulnerability and while they may have been prepared to take risks when they were younger, they do not want to let anyone take advantage of them when they have so little to fall back on. "They have survived a long and hard life and believe they know much about the world, usually they

will be happier to let another undergo an operation and wait and see the outcome before making a decision about themselves” (Wormald, 1999:6).

The prevention of blindness involves addressing the role of human behaviour in eye health (Hubley & Gilbert 2006:280). Temporini *et al.* (2002:343) reported that people’s willingness to engage in health promotion is generally taken for granted. People manage their behaviour in the light of their own life experiences and the community’s social and cultural patterns may influence attitudes regarding eye care.

Temporini *et al.* (2002:343), argue that misbeliefs concerning cataract surgery and its results might be a source of reluctance, or even denial on the part of those individuals to submit themselves to surgery. Furthermore, the use of herbs as a part of home self-treatment was an observable fact in all social strata in small communities through to great urban centres and this was thought to be due to social and cultural factors. Underutilization of health services can be surmounted by means of education programmes focusing on changing individual’s perceptions regarding the risk of visual loss and the benefits of early detection and treatment (Temporini *et al.* 2002:343).

In an exploratory survey in Brazil, Oliveira, Temporini, Jose, Carricondo and Jose (2005:457) reported that lack of information about senile cataract surgery leads people to believe that they may die during surgery when in reality this procedure is extremely unlikely to cause death. Blindness and visual impairment have far-reaching implications for society, more so when it is realized that 80% of visual disability is avoidable (Resnikoff & Pararajasegaram 2001:222). Furthermore, if available knowledge and skills were made accessible to those communities in greatest need much of this needless blindness would be alleviated.

Francis (2006:58) stated that for many patients the strangeness of hospitals and experiences of less than courteous or insensitive treatment by medical personnel may make them more reluctant to subject themselves to the ordeal of cataract surgery. Trust in services accumulates through experience, reputation accrues through a history of good surgical outcomes and the testimony of satisfied patients. Patients are reported to have high levels of anxiety preoperatively but immediately after surgery the level of anxiety dropped because of the relief they experienced (Nijkamp, Kenens, Dijker, Ruiter, Hiddema & Nuits, 2004:1312).

Temporini *et al.* (2002:345) reported that women associated the onset of cataract with menopause, maternity and menstrual periods. Attebo, Mitchell, Cumming and Smith (1997:283) in their study done in Australia among adults aged 49 years and older found that among the 98% who were aware of cataract, 20% had knowledge about cataract and this was low for people who had had previous eye treatment such as cataract surgery. This showed that knowledge about common eye diseases was generally lacking. The authors emphasize the importance of an informed public as it is more likely that they will then present earlier with visual symptoms before irreversible loss has occurred and they are more likely to comply with the recommended therapy.

A study in India by Kantharaju and Bhat (2007:178) showed that the most significant cultural response by participants regarding their views of the signs and symptoms of cataract were: “foggy vision (99), abnormal muscular growth over the eyes (62), blurred vision (32), watering of eyes (28), not able to identify (25) and development of a curtain (*pore*) over the eyes (25)”. The authors reported that the identified causes of cataract blindness were, carrying heavy loads of fire wood on head, ageing, not oiling hair regularly and chewing tobacco. Bhat, Harish, Kantharaju, Manesh and Sheetha (2000) as cited by Kantharaju and Bhat (2007:174) stated that in India, some of the local beliefs associated with cataract blindness were due to heredity and socially related activities like over exposure to smoke and heat in the kitchen and drinking too much tea. Livingston, McCarty and Taylor (1998:783) in their study in Australia, reported that the majority of the people described a cataract as a ‘film over the eye’.

Porter, Alder and Abraham (2004:38) observe that illness is perceived as a subjective experience therefore the way it is defined and responded to, differs from person to person. Moreover, people’s experiences and knowledge are drawn from their own culture (their lay referral network) and from other sources of knowledge including the media and their doctors (Porter *et al.* 2004:38). Information from research about what an intended audience thinks, knows and does about a particular health concern leads to the development of health education strategies including the setting and nature of the intervention (Hubley & Gilbert 2006:284).

It is becoming clear that strategies for reducing the cataract backlog are related not just to surgical considerations but equally important are issues relating to education, economic wealth and occupation of the cataract patient and his or her guardian(s) (Snelling, Shrestha, Gharti, Shrestha, Upadhyay & Pokhrel 1998:1425). Studies in India have shown

that despite the rapid increase in the availability of quality services resulting in an increased awareness of the benefits of cataract surgery, surgical uptake is still low in rural segments of the society owing to substantial socio-economic barriers to accepting surgery. Their study undertaken in Nepal (Snellingen *et al.*, 1998:1425) revealed that in the majority of patients with severe vision loss or blindness, even when offered transport and free surgery the utilisation of cataract surgery is below 60%. The authors argue that medical practice needs to develop a more holistic understanding of the needs of the communities cultivating a greater capability to analyse the role of cultural, social and economic factors when planning medical services for the population. Aquirre (2005:134) in his population-based survey conducted in Nakuru, Kenya, reported that the main barrier for not taking up surgery was lack of awareness followed by cost and being able to manage with one eye only.

2.5 Barriers to use of cataract services

Research, if used, can provide useful insights into reasons for use and non-use of health services (Hubley & Gilbert, 2006:280). Furthermore, some assumptions that might lead to barriers in the uptake of cataract services from patients' perspectives are as follows: acceptance of impaired sight as an inevitable consequence of old age, fear of the operation, contact with individuals who have had bad experiences, lack of encouragement from the family, lack of knowledge concerning places where surgery is provided, distance from the service, lack of persons to accompany them to the hospital, poor state of hospitals, long waiting lists and costs. Hubley and Gilbert (2006:280) reported that recent studies done in Malawi, Nigeria, Gambia and Nepal show that cost is the most important barrier. According to Nkomazana (2007:9) the reasons identified for not seeking cataract surgery in Botswana were due to a lack of awareness of the presence of cataract, lack of escorts, cost of surgery and fear of the operation.

Rotchford *et al.* (2002:289) in their study in South Africa reported patients' attitudes towards their blindness and surgery as the main barriers for utilizing cataract services. Fear of surgery and irreversibility of blindness in old age were the identified barriers for not going for surgery (Rotchford *et al.*, 2002:288). A study by Patel, Helen and Murdoch (2006:270) in west London, found that vision was regarded by all participants as one of the important senses and any loss would be a major disability. The study suggests that among

the elderly, deterioration of vision was part of the ageing process and had to be accepted by themselves and their family. In their study, participants were aware of a condition called 'motia' (cataract) but were not sure of its management (Patel *et al.*, 2006:270). Participants' view was that they should wait for it to ripen before it can be operated on but there was confusion over when this should be and there was a tendency to live with it until they could no longer see (Patel *et al.*, 2006:270).

Lewallen and Courtright (2006:60) reported that in their study undertaken in Tanzania, young households are less likely to encourage and support old women to go for surgery than old men. The authors argue that in many cultures women cannot travel unless accompanied by a male, and not having someone to accompany them can also be a barrier. Furthermore, quality of life and expectations in old age are gender-specific in some cultures and the benefit of cataract surgery may be gender-dependent.

Although there is literature about the knowledge of cataract and cataract services in other countries there is limited published literature pertaining to the Botswana region. Because culture and health practices differ from society to society, this study explored and described what elderly persons in Botswana perceive about cataract and cataract services. This may be of value in the planning of cataract educational strategies.

2.6 Summary

Cataract is the main cause of vision impairment amongst elderly persons. The most effective way of treating cataract is through surgery (removal of the opacified lens). Cataract surgery is aimed at rehabilitating the blind, by restoring their sight to near normal. Although cataract surgery is the most effective treatment, literature reveals that, in most countries, these services are located in urban areas leaving the rural areas underserved. In addition, factors such as fear of surgery, lack of escorts and beliefs attached to cataract surgery result in poor utilization of cataract services. The following chapter describes the research design used in this study and the procedures to ensure trustworthiness of the study findings.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Introduction

This section presents the research design employed in the study, the setting where the study was conducted, the study population, sampling technique, procedures for data collection and analysis, and the ethical considerations.

3.2 Research design

The researcher used an exploratory, descriptive qualitative study design to explore and describe elderly person's perceptions of cataracts and cataract services. Malterud (2001:483) defines qualitative research as a method that involves the systematic collection, organization and interpretation of textual material derived from talk or observation. The author states that this method is being used in the exploration of meanings of social phenomena as experienced by individuals themselves in their natural context. Hartley and Muhit (2003:103) report that qualitative research embraces the view that, as far as people's perceptions are concerned, different people in different places at different times interpret things differently. The research methodology for collecting data necessitates a reflection on the planning, structuring and execution of research in order to comply with the demands of truth, objectivity and validity (Brynard & Hanekom, 2006:36).

Katzenellenbogen, Joubert and Abdool-Karim (2004:176) state that many of the most pressing questions about human health care are linked to the attitudes and perceptions of both caregivers and users of the health services. An exploratory descriptive qualitative design is suitable for this study because the researcher aimed at exploring the perceptions that elderly persons have of cataracts and cataract services. People sometimes behave in ways or hold views that are difficult to understand. Qualitative methods allow researchers to understand how the participants of research perceive their situation and their role within their context. It is out of these perceptions that behaviour, including health-related behaviour is born (Katzenellenbogen *et al.*, 2004: 176).

Brynard and Hanekom (2006:36) describe qualitative methodology as research that produces descriptive data and they identify the data as the participant's own written or spoken words pertaining to their perception. Qualitative methodology allows the researcher to know people personally, to see them as they are, and to experience their daily struggles when confronted with real-life situations (Brynard & Hanekom, 2006:36). Qualitative research is conducted because a problem or issue needs to be explored and because we need a complex detailed understanding of the issue (Creswell, 2007:39). The author observes that this can only be established by talking directly with people, going to their homes or work places and allowing them to tell the stories unencumbered by what we expect to find or what we read in literature. By conducting a qualitative, exploratory, descriptive study the researcher's aim was to explore and describe the perceptions of elderly persons in Mathangwane about cataract and cataract services, as little is known about this and this research design provides an appropriate method for greater understanding of the topic.

3.3 Setting

The study was carried out in a village called Mathangwane, located in the Central District of Botswana. The village has two main wards, Mpatane and Mathangwane and both wards were included in the study. The village is about 30 kilometres (km) north of the city of Francistown where the second referral hospital (Nyangabwe) is located. The village has a population of about 6468 (Central Statistics Office, 2001). The population distribution by gender is 3457 females and 3011 males. Mathangwane was selected among all other villages in Botswana for the researcher's convenience as the researcher comes from this village and data collection took place during the university vacation. The village has one clinic with a maternity wing. The majority of the people in this village belong to the Bakalaka tribe but there are some Setswana speaking people in the village. Though the majority are Bakalaka, all of them speak Setswana fluently. The language used for interviews and focus group discussions was Kalanga as the participants felt comfortable communicating in their mother tongue. People residing in this village are mainly subsistence farmers.

3.4 Study population

According to Gerrish and Lacey (2006:174), the study population is a subset of the target population from whom the sample is taken. The population for the study included all persons aged 65 and older and resident in both wards in Mathangwane who had been diagnosed with cataract. For this study all the people aged 65 years and older, both males and females with diagnosed cataracts were identified with the assistance of the clinic staff, that is, the nurses and Family Welfare Educators (FWE) who acted as gate keepers.

3.5 Sampling and sample size

Morse and Field (1996:65) identified two principles that guide qualitative sampling: appropriateness and adequacy. The authors suggest that appropriateness comes about through identification and utilisation of the participants who can best inform the research. Random selection is not only useless to the aims of qualitative research but may be a source of invalidity (Morse & Field, 1996:65). Qualitative research does not draw large or random samples (Blanche and Durrheim, 2006:45). In this study the researcher did not draw a large sample but the sample size was determined by data saturation. Purposeful sampling was used to select a few information-rich cases (Cheek & Oster, 2002:11). Information rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the study (Patton, 2002:230).

Qualitative studies do not attempt to predict an outcome, as many quantitative studies try to, rather they seek to explore questions to which the answer is not known and predictions cannot be made (Hartley & Muhit, 2003:1006). The authors argue that this does not weaken such studies but allows rich data to be collected across the fullest range of possible views, by purposely selecting people with different backgrounds and experiences. Creswell (2007: 125) views purposeful sampling to mean that the inquirer selects individuals and sites for study because they can purposefully inform an understanding of the research problem and central phenomenon of the study. The researcher therefore found it worth including participants from both wards in the village of Mathangwane as there might be cultural differences that might impact on their perceptions about cataract and cataract services.

Adequacy therefore occurs when there is enough data to develop a full and rich description of the phenomenon, that is, the stage of saturation or redundancy will have been reached, and no new data will emerge by conducting further interviews (Morse & Field, 1996:65). Using purposeful sampling the researcher identified participants for inclusion in the study who were then interviewed. The researcher ended up with a sample size of seven participants (five females and two males). Both male and female participants were included because the researcher needed information from both perspectives. Purposeful sampling was done to include participants who had undergone surgery and those who had not undergone surgery because though they might all have cataract, their perceptions may differ from those who have undergone surgery as they have first hand information about the facilities and surgery and those who had not undergone surgery may only have perceptions about the surgery. The gate keepers, who were the clinic nurses and Family Welfare Educators, identified thirty seven potential participants who could give rich data. Of the thirty seven potential participants, the researcher identified the first ten participants retrospectively from the period of May 2007. The researcher visited the identified potential participants by going from house to house as Mathangwane is a very small village and it was easy to identify the participants' homes to gain access and to assess each participant for inclusion against predetermined criteria. During the visit the researcher informed the potential participant about the aims of the study and the need for their willingness to voluntarily participate and give rich data.

3.6 Inclusion criteria

The following criteria were considered for the selection of participants, first in individual interviews and then in a focus group discussion;

- Individuals were of both genders aged 65 and older. A literature review showed that persons of this age are more likely to experience cataract blindness than younger persons.
- Individuals who had been diagnosed with unilateral or bilateral cataract.
- Individuals who had been diagnosed for a period of five years up to 2007 to ensure data richness.

- Individuals who had undergone cataract surgery up to 2007.
- Individuals who had not undergone surgery.

3.7 Exclusion criteria

- Individuals of both genders aged 65 years and over who had been diagnosed with unilateral or bilateral cataract but had aphasia.
- Individuals of both genders aged 65 years and older who had been diagnosed with unilateral or bilateral cataract but had impaired hearing.
- Individuals who had glaucoma and cataract.

These individuals were excluded from the study as the researcher has no skills in communicating with persons with these physical challenges. Of the ten participants, two a male and a female, had hearing problems and were excluded. Of the thirty-seven potential participants, six had glaucoma and cataract and were therefore excluded. Two potential participants were visited twice to make an appointment but were never found at home. One was reported to have gone to see an ear, nose and throat specialist in Ramotswa. Among the visited potential participants one male participant, a traditional healer, refused to participate in the study as he was not willing to share information about the services, as he perceived modern services to be a threat to the society and believed he could treat himself without going to the hospital. Seven participants (five females and two males) agreed to participate in the study of whom four had undergone surgery for their cataracts. Data saturation was reached by the seventh participant and no further participants were recruited. Although no new information was forthcoming, the researcher found it worth bringing the participants together to further verify some key concepts which were picked up during the interviews and also to find out if any new data would be generated when participants were stimulated by other's comments which resulted in the researcher doing a focus group discussion as form of supplementary data source.

3.8.0 Data collection method

The researcher conducted semi-structured individual interviews and a focus group discussion made up of the same five females but only one male who was available. The other male participant had promised to be at the focus group discussion but was ill and had gone to the hospital. The researcher only conducted one focus group as the information gathered there did not show any new information but rather redundancy (data saturation).

3.8.1 Semi-structured interviews

Strydom, Fouche and Delport (2005:296) reported that semi-structured interviews are used to gain a detailed picture of a participant's beliefs about, or perceptions of or account of, a particular topic. This method gives the researcher and participant much more flexibility as it enables the researcher to follow up particular, interesting avenues that emerge in the interview, and the participant is able to give a fuller picture (Strydom *et al.*, 2005:296). The aim of the interview, as with any qualitative data collection tool, is to explore 'insider perspectives', to capture the participant's own words, thoughts, perceptions, feelings and experiences (Taylor, 2005:39).

Semi-structured interviews are conducted on the basis of a loose structure consisting of open-ended questions that define the area to be explored, at least initially, and from which the interviewer or interviewee may divert in order to pursue an idea in more detail (Britten, 1995:251). Likewise, Green (1999:46) reports that talking to patients in-depth about their perceptions of eye health and disease, what they do to protect their health and their beliefs about Western and non-Western health systems can help providers understand both risks associated with the disease and barriers to treatment. Data saturation appeared to have been achieved by the fifth participant (three females and two males) and among these, three had undergone surgery and two had not. Nevertheless, the researcher found it worth doing two more interviews with an expectation that more data will be generated but no new data was forthcoming.

3.8.1.1 Preparation for interviews

Interviews are structured conversations (Rubin & Rubin, 2005:129). The researcher organizes an interview by combining the main questions, follow-up questions and probes. Main questions help the researcher to ensure that the researcher question, will be answered while the follow-up questions and probes ensure that the researcher gets depth, detail, vividness, richness and nuance (Rubin & Rubin, 2005:129). The researcher normally prepares main questions prior to the interview (Rubin & Rubin, 2005:135). If the researcher has initially posed sufficiently broad main questions and encouraged the interviewee to reply at length the resulting answers are likely to be rich and present many choices about what to follow up. Follow up is not done for all responses but to those that speak to the research question. The authors argue that probes are techniques to keep the discussion going while providing clarification. Probes elicit more details without changing the focus of the questioning.

In support, Ulin, Robinson and Tolley (2005:82) suggest that whether in individual interviews or group discussions, qualitative questions are informal, non-judgemental, and open. Furthermore, the researcher must speak clearly but casually, avoiding any suggestion that one answer might be more desirable than another.

The researcher had prepared a semi-structured interview guide comprising nine (9) main questions in English, Kalanga and Setswana (Appendices G (English language), H (Kalanga language) and I (Setswana language)). The kalanga (appendix H) was used for the individual interviews. The questions were used for each individual interview to maintain consistency. All participants were asked all nine questions. Prior to the interviews, the researcher ensured that the audio-tape recorder was functioning and that there were sufficient tapes. The researcher had organised a stamp pad and black stamp pad ink for obtaining thumb prints from illiterate participants. Each participant was given a code number for the individual consent form to ensure anonymity of each participant and confidentiality of the data. The interviews were conducted in a quiet environment in the participant's homes, the most convenient and comfortable location for them. Privacy was maintained throughout the interview. This was ensured through use of a separate room chosen by the participants when other people were in the home at the time of the interview.

3.8.1.2 Focus group

Strydom *et al.* (2005:305) state that focus groups are a means of understanding how people feel or think about an issue or service. Unlike a series of one-on-one interviews, in a focus group participants get to hear each other's responses and can make additional comments beyond their own original responses as they hear what other people have to say (Patton, 2002:384). Following the semi-structured individual interviews, the researcher reminded the participants that they would be invited to a focus group discussion to find out if any new data would arise when participants were stimulated by others' comments and also to verify some key concepts they used during the individual interviews. A focus group discussion was used in this study not as the principle source of data but as a supplementary source of data. The researcher felt that the focus group might promote self-disclosure, especially for those participants who had not undergone surgery, as they had been reluctant to discuss their experiences in the individual interviews. This may have been due to fear or power imbalance between the researcher and the participant. Focus groups consisting of persons with homogeneous experiences offer participants a relatively safe environment in which to share their experiences and dilute the power imbalance between the researcher and the participants by taking advantage of a naturally occurring peer group (Barbour, 2005:743).

The focus group in this study comprised six participants, five females and one male. The language used during the focus group was kalanga (appendix H). The focus group was integrated with individual interviews as a means of qualitative-qualitative triangulation to verify data completeness and to confirm some key concepts and themes that emerged from the semi-structured individual interviews (Lambert & Loiselle, 2007:230). Strydom *et al.* (2005:307) state that focus groups are useful for understanding diversity as they help one understand the variety of others' experiences. The group dynamics contribute to a rich discussion amongst participants.

Focus groups do not discriminate against people who cannot read or write and they can encourage participation from people reluctant to be interviewed on their own or who feel they have nothing to say (Kitzinger, 2005:57). Furthermore, this method is particularly useful for exploring people's knowledge and experiences and can be used to examine not only what people think but how they think and why they think that way. The idea behind the focus group method is that the group processes can help people to explore and clarify their views in ways that would be less easily accessible in a one-on-

one interview. Strydom *et al.* (2005:301) report that focus groups create a process of sharing and comparing among participants.

In preparation for the focus group discussion, the researcher visited the participants at their homes, two weeks before the set date. A day before the focus group discussion, the researcher telephoned the participants (one had a land line and two had cell phones) to remind them about the venue and time of the focus group discussion and visited the homes of the four participants who did not have contact numbers. The researcher had an assistant, also a University of Cape Town student studying for a Masters degree in Nursing Science and not a resident of Mathangwane village. She was informed about the importance of keeping information private and confidential and her role and expectations during the focus group discussion. The assistant was considered for assistance in the handling of distractions and to act as a back-up to the taped communication. The assistant captured comprehensive written notes and responded to unexpected any interruptions.

3.8.2 Gaining access

Following approval of the research proposal by the University of Cape Town Faculty of Health Sciences' Research and Ethics Committee (Appendix L), permission was obtained from the Botswana Ministry of Health's Department of Research to conduct the study (Appendices J & K). Gaining access typically involves negotiations with gatekeepers who have the authority to permit entry into their world (Polit & Beck, 2006:58). Strydom *et al.* (2005:91) state that gaining access and acceptance can be far more demanding when entering unfamiliar territory, as it is necessary to negotiate with formal gatekeepers as well as individual respondents to enlist their cooperation and trust.

The researcher visited the Mathangwane Clinic to meet with the clinic staff, to inform them of the study and to request their cooperation and assistance in identifying patients who fit the criteria for inclusion in the study. The nurses and Family Welfare Educators (FWE) were identified as gatekeepers to identify patients from memory who had been diagnosed with cataract and to provide their contact addresses, as the clinic register did not have the names of the patients. To protect the anonymity of the potential participants, the researcher requested the nurses and the family welfare educators not to

divulge the names of the potential participants to anyone. Anonymity of the participants was further protected during the sampling process by keeping the names in a safe place to which only the researcher had access. The gatekeepers did not know which of the thirty-seven potential participants were included in the study.

In gaining access to potential participants the intention was only to inform participants about the study by reading from the information sheet (Appendices B & C) and to screen for suitability for inclusion in the study. The researcher wanted to gain verbal consent prior to arranging an actual date for interviews once the selection had been made. Following this, the researcher and participants arranged suitable dates on which to conduct the interviews. The interviews were conducted in Kalanga (Appendix H) to suit the participants and because the researcher is fluent in this language.

3.8.3 Data Collection Process

3.8.3.1 Semi-structured interviews

The researcher collected data between the months of July and August 2007. During the individual interviews the researcher ensured consistency by using a semi-structured interview guide for each interview (Appendix H; Kalanga). The researcher then took the following steps:

- The researcher made arrangements with each participant regarding the date and time of the interview, venue and duration of the interview process.
- The researcher was aware of the potential for a power imbalance and the participant's possible perception of coercion to participate in the study. The researcher therefore pre-empted this perception by reassuring the participants of the voluntary nature of participating in the study (Appendix B; Kalanga). The researcher informed the participants that their refusal to participate in the study would not lead to penalisation when they next needed to access health care services.
- The researcher informed each participant about the aims and nature of the study. Each participant was given the opportunity to ask questions regarding the interview process. The participants were assured of protection of anonymity

during the research process by using a code number instead of the participant's names and they were assured of the protection of confidentiality in that the information given would only be used for purposes of this study.

- The researcher explained the importance of capturing the participants' own views and experiences and informed them that an audio-tape recorder would be needed. The researcher then obtained permission from each participant to record the conversation on the audio-tape. The researcher informed the participants that she may make notes during the interview and that they could do the same to highlight key areas which might require further discussion during the interview process.
- The researcher then conducted individual interviews which lasted a minimum of 30 minutes and a maximum of 45 minutes.

3.8.3.2 Focus Group

A focus group was conducted on the 31st August 2007, with six participants (five females and one male). The researcher acted as the facilitator and had an assistant who kept a record of non-verbal cues and other observations (as discussed under 3.8.1.2). The following steps were taken during the focus group:

- The researcher welcomed and thanked the participants for coming, introduced her assistant and explained their roles.
- The researcher explained the purpose of the focus group discussion as a follow-up on the individual interviews, in an attempt to seek deeper meaning of the participants' perceptions of having a cataract and of the cataract eye care services available to them. The participants were informed of the use of the audio-tape recorder during the session as this was important for further referral during the analysis stage of the study. Participants were encouraged to feel comfortable to opt out if they did not want their voices to be recorded and assured them that there would be no penalties if they withdrew from the study.
- The researcher requested participants to feel free and speak up and to try to have one person speak at a time. The facilitator explained that her role was to see to it that each participant was given a turn to participate in the discussion. The

researcher reassured the participants repeatedly and requested them not to worry about what others would say or think if s/he expressed her/his views.

- The researcher emphasized the importance of keeping whatever was said in the focus group confidential and of not sharing the information with other people outside the focus group.
- The focus group discussion lasted for 60 minutes. The researcher used the semi-structured interview guide (as for the interviews) and emphasized some key themes picked up from the individual interviews as a form of verification and member check.

3.8.4 Data collection tools

3.8.4.1 Semi-structured interview guide

The researcher had designed a semi-structured Interview Guide in English (Appendix G), Kalanga (Appendix H) and Setswana (Appendices I) that listed the questions to be explored in the course of the interviews. Only the Kalanga Interview guide was used. The same interview guide was used for the focus group discussion with a key emphasis on the themes that emerged from the semi-structured individual interviews.

The interview guide ensured that the researcher did not get lost in topics that were of no relevance to the study (Flick, 2006:165). Most importantly the interview guide ensured that the same basic lines of inquiry were pursued with each person interviewed (Patton, 2002:343). Furthermore, the interview guide provided topics within which the interviewer was free to explore, probe and ask questions to elucidate and illuminate that particular subject. Patton (2002:343) reports that the interview guide helped to make interviewing different numbers of people more systematic and comprehensive by delimiting in advance the issues to be explored.

The interview guide has nine questions and two sections. Questions 1 to 4 address the participants' perceptions of various aspects of a cataract per se, (relating to objective number one of the study) while the remaining questions 5 to 9 are about cataract services (addressed objectives two and three). Open-ended questions allowed participants to answer in their own words.

The interview guide was pre-tested on three individuals in the community of Tatisiding, a village 15km from Francistown, and the results of this exercise were used in restructuring the follow-up questions and probes and in sharpening the researcher's interview skills. Cormack (2000:24) states that a pilot study is a smaller version of the proposed study conducted by many researchers as a preliminary to the actual study. Strydom *et al.* (2005:331) add that in qualitative research the pilot study is usually informal, and a few respondents possessing the same characteristics as those of the main investigation can be involved in the study to ascertain certain trends. The pilot study was carried out on three elderly persons aged 65 years and older with diagnosed cataract (one male and two females). The pilot study helped to establish effective communication patterns, to estimate the time and costs of the study and to pre-empt any problems that may arise during the interviews (Strydom *et al.*, 2005:331).

3.8.4.2 Audio-tape recorder

Audio-tape recordings provide a complete account of the discussion (Ulin *et al.* 2005:125). Furthermore, others may be able to review the tapes and decide whether they would draw the same conclusions from them. Participants could request for the tape recorder to be switched off when they did not want something not to be recorded. The audio-tape recordings were also used as a form of member check as participants were given the option of either listening to the audio-tape or reading the transcribed notes. They opted to listen to the audio-tapes. It was very interesting that most participants were keen to have a chance to listen to their views and kept emphasizing the important points by nodding their heads. They regarded this as a very interesting and useful way of capturing data.

3.9 Data management and analysis

Hoepfl (1997:54) defines qualitative data analysis as working with data, organizing it, breaking it into manageable units, synthesizing it, searching for patterns, discovering what is important and what is to be learned and deciding what to tell others. The purpose of data analysis is to bring meaningful structure and order to data (Anfara, Brown & Mangione, 2002:29). The researcher did not find the process easy. Vast amounts of data were generated from the semi-structured interviews and focus group

(Pope, Ziebland & Mays, 2000:320). The researcher jotted notes and reflective notes were made during the research.

The researcher had to make sense of the data by sifting and interpreting the transcripts. Qualitative analysis emphasises how data fits together as a whole, bringing together context and meaning (Ulin *et al.*, 2005:145). There are many approaches to qualitative data analysis but one way is simply that of using the research questions to group the data and then to look for similarities and differences. The researcher found this approach useful in conjunction with the steps outlined by Hsieh and Shannon (2005:1279) as described below. Data analysis in qualitative research actually begins when data collection begins and this is what the researcher did. As researchers conduct interviews or observations, they maintain and constantly review records to discover additional questions they need to ask or to record descriptions of their findings they need to offer. Qualitative researchers must 'listen' carefully to what they have seen, heard, and experienced to discover meaning (Speziale & Carpenter, 2007:46). Ryan and Bernard (2003:88) report that for those who tape their interviews, the process of identifying themes probably begins with the act of transcribing the tapes. As the researcher transcribed and translated the raw data, initial themes were identified.

3.9.1 The process of data analysis

In analysing the data for this study the researcher adopted qualitative content analysis for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes and patterns (Hsieh & Shannon, 2005: 1277). **Conventional content analysis** was used as it focuses on deriving codes and categories directly from the text data. The actual process of data analysis usually takes the form of clustering similar data, that is, these clusters are labelled themes (Speziale & Carpenter, 2007:47). A theme is described as an abstract entity that brings meaning and identity to a recurrent experience and its variant manifestations (DeSantis & Ugarriza, 2000:362). Furthermore, these authors identify a theme as a process that captures and unifies the nature or basis of the experience into a meaningful whole.

Steps for analysing the data (adapted from Hsieh & Shannon 2005:1279):

- i. Following a verbatim transcription of each interview in the Kalanga language, the researcher then listened to the interviews in Kalanga again, manually

translating the Kalanga transcripts into English and then typed the English transcriptions. The two transcripts that is, in Kalanga and English for each interview, were compared to see if they contained the same data. The researcher compared the field notes and the transcribed data to determine whether they all pointed to the same conclusion which served as a process of triangulation to ensure the validity the results. Doing all the interview transcriptions herself, gave the researcher an opportunity to get immersed in the data and generated an understanding of the participants' perceptions. Each transcript was analysed in the following way for each interview and focus group. Following verbatim transcription, the researcher engaged a research partner (Mrs Ludo Nkhwalume, a lecturer at the Institute of Health Sciences, Francistown, Botswana) who spoke the two languages to verify the audiotapes and transcriptions. The data analysis was done only in English. The transcripts were formatted into a raw data file with a common format or font size, and key questions or interviewer's comments were highlighted (Appendix M). A hard copy was printed of each raw data file.

- ii. Data analysis was done by reading all data repeatedly for the researcher to obtain a full understanding of the data. Data about description of cataract, causes of cataract, treatment of cataract, burden of cataract blindness and utilisation of services then were colour coded manually with the use of highlighter pens. The data was read word by word to derive codes and this was done through first highlighting the exact key words addressing key issues in the objectives for the study which aimed to:
 - Explore and describe elderly persons' perceptions of cataracts;
 - Explore and describe elderly persons' perceptions of cataract services;
 - Explore reasons for use or non-use of current cataract services (Appendix M)
- iii. The researcher gave labels to the codes that were found to have one meaning or the same information, for example 'spider web, 'a whitish dirty thing' and 'occlusion of the small black part of the eye' (Appendix N). This labelling of codes was derived directly from the text data as the researcher repeatedly read through the data.

- iv. The codes were then sorted into categories based on how the codes were linked and related. For example 'the blinding eye disease and 'ageing associated with cataract but actual cause unknown' (Appendix O).
- v. The categories were then used to group the identified codes and into cluster themes. The categories were looked at closely to see what cluster or theme could be created from the categories. Five themes were derived from the meaning of the phrases in the text. This was done manually using a word processor (Appendix P). Though qualitative researchers use some process of coding, there are no standard rules about how to do it (Ulin *et al.*, 2005:147). Researchers differ on how to derive codes, when to start and stop coding and what level of detail they want. The data and audio tapes were kept in a safe place to which only the researcher had access. These will be kept for three years until the study results are disseminated and then the data will be destroyed.

3.9.2 Ensuring scientific rigour

3.9.2.1 Trustworthiness

According to Lincoln and Guba (1985:290), trustworthiness is viewed as how an inquirer can persuade his or her audience (including self) that the findings of an inquiry are worth paying attention to or worth taking account of. Mouton and Prozesky (2004:275) stated that a qualitative study cannot be called transferable unless it is credible and it cannot be deemed credible unless it is dependable. Lincoln and Guba (1985:296) identified four criteria by which to assess the truth value of qualitative findings as: credibility, confirmability, dependability and transferability. The researcher ensured that these were considered in the study.

3.9.2.2 Credibility

According to Mouton and Prozesky (2004:275) credibility deals with questions such as, does it 'ring true', is there compatibility between the constructed realities that exist in the minds of the respondents and those that are attributed to them? The authors suggested that credibility is achieved through prolonged engagement, triangulation,

referential adequacy, peer debriefing and member checks. In support, Conrad and Serlin (2006: 414) state that member checks may take the form of debriefing sessions with interviewees, immediately following interviews, to test the initial understanding by the researcher of the data gathered.

As mentioned earlier, the local language in Mathangwane is Kalanga and Setswana (local dialect). For the interviews and focus groups the participants were interviewed in Kalanga (Appendix H). The credibility of findings was ensured by the researcher doing all the interviews to ensure consistency and to reduce variation in data collection.

Mays and Pope (1995:112) observe that validation strategies sometimes used in qualitative research are to feed the findings back to the participants to see if they regard the findings as a reasonable account of their experience and to use interviews or focus groups with the people so that their reactions to the evolving analysis become part of the emerging research data. The researcher compared the field notes and the transcribed data to determine whether these point to the same conclusion which served as a process of triangulation to ensure the validity of results. Semi-structured interviews, a focus group discussion and field notes were employed as a means of triangulation. To ensure credibility the researcher went back to the participants individually to offer a choice of either listening to their conversation on the audio-tape or reading the transcribed information for them to verify that the information captured was exactly what they communicated (member checks). The participants chose to listen to the audio-tapes. The audio-tape recorder was used to ensure referential adequacy and to capture raw data during interviews and focus group discussions. Peer review was carried out by the researcher discussing the research processes and findings of the study with the research supervisors who individually elicited themes from the raw data to validate the analysis and findings.

3.9.2.3 Confirmability

Morse, Barrett, Mayan, Olson and Spiers (2002:9) report that verification is the process of checking, confirming, making sure and being certain. The authors view this as a mechanism used during the process of qualitative research to incrementally contribute to ensuring reliability and validity and thus the rigour of the study. The authors advocate for good qualitative researchers to move back and forth between design and

implementation to ensure congruence among question formulation, the literature, recruitment, data collection strategies and analysis. According to Conrad and Serlin (2006:417) confirmability is the concept that the data can be confirmed by someone other than the researcher. The process of member checks is described in 3.9.2.2.

Sufficiency of data collection was guaranteed by ensuring the following steps. A review of the data was done during the process of data collection in order to identify areas of clarification or further probing. Interviews were done to the point at which no new information was obtained and redundancy was becoming evident (data saturation). All interviews were summarized and the validity of the contents confirmed with the participants. Morse *et al.* (2002:10) observe that rigour is supported by tangible evidence using audits trails, member checks and memos.

3.9.2.4 Dependability

Mouton and Prozesky (2004:276) argue that the researcher must provide evidence that if the study were to be repeated with the same or similar respondents (participants) in the same (or similar) context, the findings would be similar. Dependability in qualitative research involves accommodating changes in the environment studied and in the research design itself (Conrad & Serlin 2006: 416). The authors observe that this becomes more refined over the course of data collection and even during data analysis. The research questions in qualitative research although posed at the onset, tend to evolve in response to emerging data, with the researcher perhaps reshaping or eliminating preliminary questions and adding others (Conrad & Serlin 2006: 416). In this study the use of different methods for data collection that is interviews, a focus group and field notes were used as measures of triangulation. The semi-structured individual interviews were used as the primary method for data collection, while the focus group was used to validate and confirm key concepts and themes that emerged from the individual interviews. The field notes helped the researcher to confirm some of the issues that emerged during both individual interviews and the focus group discussion.

3.9.2.5 Transferability

Transferability refers to the extent to which the findings can be applied in other contexts or with other respondents (Mouton & Prozesky 2004:276). A qualitative researcher is not primarily interested in (statistical) generalisations instead the findings are unique to that study (Mouton & Prozesky 2004:276; Burns & Grove, 2001:631). In qualitative studies the obligation for demonstrating transferability rests on those who wish to apply it to the receiving context (the reader of the study). Green (1999:46) reported that professionals reading qualitative research reports often have concerns about how generalisable the research is, particularly when based on only one site or a small number of people being interviewed.

Mays and Pope (1995:109) argue that unlike quantitative studies, qualitative samples are rarely randomly drawn from the population of interest so they are not statistically generalisable. Ulin *et al.* (2005:54) observe that qualitative studies emphasize depth more than breadth, insight rather than generalization, illuminating the meaning of human behaviour. Considering the limitations of the study setting, sample size and the sampling criteria, findings from this study were not intended for generalisation to all the Batswana. The researcher ensured that data collected was sufficient and detailed and the report is detailed enough to allow for judgement about transferability to be made by the reader.

3.9.3 Ethical considerations

Ethical approval was obtained from the University of Cape Town Faculty of Health Sciences Research and Ethics Committee (Appendix L) and the Botswana Ministry of Health's Department of Research (Appendix K). The ethical principles of autonomy, beneficence, confidentiality, nonmaleficence, veracity and justice were upheld in conducting this study.

3.9.3.1 Autonomy

The researcher respected the autonomy of all the participants during the entire process of the study. This was ensured by informing the potential participants that participation in the study is voluntary and the study aims and objectives were explained to them in a

Participant's Information Sheet (Kalanga language, Appendix B) for individual interviews; and for the focus group (Appendix E, Kalanga language) which included the Consent Form. For one illiterate participant, in addition to the process above, the researcher gave her a choice of having the Information Sheet read to her by a member of the family or the researcher. The participant opted for the researcher to read the Information sheet to her. The participant's thumb print was then obtained. The Participant's Information Sheet and Consent Form contain a detailed explanation of the participants' right to withdraw from the study at any time with no penalties. Copies of the relevant Appendices (B & E) were given to each participant. Completed Consent Forms accompanied the interview guide for all participants who were part of the study as proof of agreement to participate in the research.

The participants were informed that they should feel free to withdraw from the research at any time and that this will not affect their relationship with the health workers and they will not be questioned about reasons for withdrawal. The participants were informed about use of code numbers as a form of ensuring anonymity and also that this will be maintained even when the study is to be published.

3.9.3.2 Obtaining consent

According to Blanche and Durrheim (2006:66) obtaining consent from participants is not merely the signing of a consent form. Furthermore, consent should be voluntary and informed. The researcher ensured that the potential participants received a full, non-technical, easy-to-understand and clear explanation of the tasks expected of them so that they could make an informed choice to participate voluntarily in the study (Appendices B & E). This was in the participant's language (kalanga) for easy understanding. The researcher informed the participants about her availability to answer participants' questions even after the study had started in order to allay any fears or anxieties they might have. The researcher informed the participants that they would not incur any costs by participating in the study. The researcher also explained the reason for signing the Consent Form before participating either in the interview or focus group discussion. For the illiterate participant a thumb print was obtained. A letter of authorization to carry out the study was obtained from the government authorities (Ministry of Health Research Unit) and shown to the participants (Appendix K). As mentioned in 3.3 the

local language in Mathangwane is Kalanga and Setswana (local dialect). For the interviews and focus groups the participants were given a consent form to sign before each individual interview and focus group discussion (Kalanga, Appendix B). The English version of the consent form (Appendix A) was translated into Kalanga and Setswana and then back to English to ensure validity. Accuracy of translation was checked by a UCT postgraduate student in the Law Faculty also fluent in these languages (Personal communication: Moloji, Mr). The researcher is fluent in all the three languages that is, Kalanga, Setswana and English.

3.9.3.3 Beneficence

The researcher informed the potential participants and later the selected participants, about the benefits of the study, that is, the population of Botswana at large could benefit if their perceptions with regard to cataracts are known, as this would assist the policy planners and also health workers to make cataract services accessible to all. The participants were informed that publication of the study could assist them in informing their family members about what cataracts are and the cataract services that are available. The participants were informed that no money would be given to those who volunteer to participate.

3.9.3.4 Nonmaleficence

The participants were informed that no harm was anticipated by participating in the study and that all possible risks had been considered. Ulin *et al.* (2005:58) stated that it is important to remember that potential harm to study participants is not just physical but can be psychological, social, economic, or professional. Physical wounds may heal more quickly than wounds to a person's reputation or sense of security. The authors report that in culturally sensitive studies, the ethical responsibility for the researcher goes beyond the simple statements of informed consent. As participants may have had their emotions aroused by some of the questions particularly if they were blind or had a bad experience, prior to the interviews the researcher had made arrangements with the

social worker and lay counsellor to refer participants if necessary. This was not necessary during or on completion of the study.

3.9.3.5 Confidentiality and anonymity

The participants were informed about issues of confidentiality that is, although the researcher would know who said what during the interview and focus group discussion, this information would not be told to anyone. Furthermore, anonymity was protected in that no names would be used so as not to identify or link the participant with the data. The participants were informed that no one except the researcher and other group members (focus group) would know that the participant took part in the study. This also applied to signing of the Consent Form. The signed consent forms were not stapled to the transcribed data per individual but rather were kept in a lockable and safe place to which only the researcher has access. The participants were informed that the researcher will be responsible to protect the anonymity of the participants and the confidentiality of the collected data during the study and after the study is completed. The participants were informed that audio-taped data and all the transcripts for interviews would be secured by keeping it in a safe and lockable place to which only the researcher had access. The participants were informed that audio-tapes and raw data would be destroyed following dissemination of the study findings.

3.9.3.6 Justice

All participants were treated the same and with fairness. No potential participants were discriminated against as both males and females were included in the study. The participants were informed that they were free to withdraw from the study at any time and this would not impact on health care services they required nor would it result in them being denied any medical benefit. The participants were informed that participation was voluntary and refusal to take part in the study would not result in denial of medical care.

3.9.3.7 Summary

A qualitative exploratory descriptive research design was used in this study. This method allows the researcher to understand how the participants perceive the situation

and their role within their context. The study was done in Mathangwane, Botswana, where the majority of the residents are of the Bakalaka tribe. The study participants comprised male and female elderly persons aged 65 years and older. Purposeful sampling was used to select potential participants. Data collection was done through the use of semi-structured individual interviews and a focus group discussion. Conventional content analysis was used to analyse data as it focuses on deriving codes and categories directly from the text data. The following chapter presents the findings of the study.

CHAPTER FOUR

4.0 FINDINGS

4.1 Introduction

This chapter presents the findings of this study. The participants' profiles are presented to help the reader understand the characteristics of the participants that were included in the study. Meaningful responses are quoted directly to more fully explain participants' perceptions of cataract and cataract services. The researcher uses a diagram, table and quotations to interpret, describe and explain participant's view of their world and their perceptions about cataract and cataract services. Data about age was not included in the semi-structured interview guide but was obtained from the participant's out-patient card. Graphic presentation of data in diagram 4 summarizes and depicts the relationship between the themes and the strong influence of cultural beliefs.

4.2 Participant profiles

The socio-demographic characteristics of the participants were as follows: two men and five women with ages ranging from 65-88 years. All grew up and lived in Mathangwane village. Fewer men than women were found in this age group amongst the potential thirty seven participants identified by the gatekeepers, thus accounting for the difference in males and females in the sample.

- **MATF01**

This 65-year old woman was specifically selected for the first interview because of her willingness to share information, her openness and confidence. She was reported to be a registered destitute due to blindness and a traditional healer. She had six adult children who were all working outside Mathangwane village. She lived with her youngest daughter who had two children. She was married but was deserted by her husband. The atmosphere was very relaxed during the interview. She had undergone surgery for her cataract.

- **MATM02**

The second interviewee, a 78-year old male living with his wife, was purposefully selected because he willingly shared his views especially pertaining to cataract services. He had four adult children who worked outside Mathangwane village. He was a farmer and the interview was conducted in his home. He had not yet undergone surgery for his cataract.

- **MATF03**

This was a 68-year old mother of four adult children. At the time of the interview she was living with her daughter who works in Francistown. The participant had stopped going for her regular check-ups even though she was aware that she had a cataract. At the start of the interview she was not very open, especially with issues pertaining to cataract services and local ways of treating a cataract. As the interview progressed she became more forthcoming. She had not undergone surgery for her cataract.

- **MATF04**

The fourth participant, an 88-year old woman with three adult children lived with her eldest son in Mathangwane but at the time of the interview she was visiting her granddaughter who lives in the same ward to assist with postpartum care (Botsetsi). She was a very open person, willing to share her experiences and to educate other elderly people about the importance of cataract surgery. She had undergone surgery for her cataract.

- **MATM05**

The fifth interviewee, an active 80-year old married man with five adult children, was outspoken. Only one of the children was employed and his first born son was blind. He had undergone surgery for his cataract.

- **MATF06**

This 78-year old mother of six adult children, lived with her 36-year old unemployed daughter. Four children were secondary school teachers and her deceased daughter had been a nurse. She was open and willing to share her opinions and experiences of cataract surgery. She spoke with enthusiasm and passion during interview. She had undergone surgery for her cataract.

- **MATF07**

This 72-year old woman lived with her aged mother who had visual problems, especially with her right eye. After three visits to her home the researcher could sense

that she was very bitter about the delays she experienced in accessing the cataract services but she felt uncomfortable about giving her opinion on the matter. She had not yet undergone surgery.

4.3 Overview of the themes

As described in the methodology chapter, themes and sub-themes derived from the transcripts aimed to answer the main question of the study: **What are the perceptions elderly persons in the Mathangwane village in Botswana, have of cataracts and cataract services?** Ulin *et al.* (2005:82) observe that interviews typically use a written set of flexibly worded topics or questions that keep the conversation on track but without imposing boundaries on the participant's style and expression. The interview guide comprised nine questions (Appendix G, H, I) to address the study objectives which aimed at:

- i. Exploring and describing elderly persons' perceptions of cataracts;
- ii. Exploring and describing elderly persons' perceptions of cataract services;
- iii. Exploring reasons for use or non use of current cataract services.

Questions 1-4 were targeted for objective number one while questions 5-9 addressed objectives two and three.

4.4 Description of the themes

Five key themes emerged from the interviews and focus group. These themes provide a clear understanding of the perceptions of elderly persons in Mathangwane village about cataract and cataract services. Themes that emerged from the data included:

- 4.4.1 Cataract as the 'spider web'
- 4.4.2 Curing cataract with traditional herbs
- 4.4.3 Cataract a problem of the elderly caused by modern food
- 4.4.4 The burden of cataract blindness
- 4.4.5 The ambivalent voice of elderly persons about cataract services

The themes and sub-themes are presented in Table 2 below.

Table: 1. Presentation of Themes

Themes	Cataract as the 'spider web'	Curing cataract with traditional herbs [doubtful]	A problem of the elderly caused by modern food	The ambivalent voice of elderly persons about cataract services	The Burden of cataract blindness the [mealie meal on the fire]
Sub-themes	The blinding eye disease The white eye	Traditional herbs Cultural practices	Modern food Heredity Insufficient blood supply Ageing Cultural beliefs Hypertension	Feelings about cataracts services The help-seeking behaviour Measures to improve cataract services	Suffering Dependence Impact on social life

4.4.1 Cataract as the 'spider web'

All the participants in the study described a cataract as a white thing that seals the small black part of the eye (the pupil). The white thing is said to resemble a spider web, from where the name "lidandi" was derived, meaning a spider web (cataract). Naming a cataract the spider web was derived from how the spider makes its web that seals. The participants perceived this white thing as occluding the pupil which they viewed as the most important part of the eye for vision.

"This illness as you hear that it's a spider web "Lidandi" (cataract) its blindness. Because when you hear that you have cataract you will not be able to see. But there will be things which develop in the eyes, white things, a white thing, is very white, it develops in the eyes and makes the eyes to be whitish, that is what we refer to as a spider web " Lidandi" (cataract)."(FG)¹

Participants had general knowledge about cataract, describing it in layman's terms as 'a whitish thing on the small black part of the eye, right at the centre of the eye (the

¹ FG- focus group

pupil)'. They had a basic knowledge about the condition and understood that it was the cause of blindness. The whitish discoloration of the pupil occludes vision resulting in blurred vision, double vision and blindness.

"I could not see... I could.... It was just blur. I mean when I looked around I found that the atmosphere was like covered with smoke, whitish, it was like smoke, I could not see what was happening". (MATM05)

There was a description of a second type of cataract which was said to be a skin like thing which develops from the inner eye towards the small black part of the eye (pupil), though this was not agreed upon in the focus group discussion. It is possible that the participants had difficulty in differentiating a cataract from a pterygium. One participant described the second type of cataract as follows:

"they will be growth, something growing start here (showing the eye) then it grows going this way until it covers this black part of the eye, then this is what is said is a lidandi (cataract) but we do not know that an eye can have something growing on it". (MATF04)

'The spider web' reflected the participant's experience and description of a cataract. Cataract, known to the participants as the spider web or the blinding eye disease is viewed as a condition that leads to blurred vision following the occlusion of the pupil by the white thing (the 'spider web'). This vision loss has a significant impact on their social life as it confines them to their homes. This vision loss, though painless, affects their lives so badly that they are driven to seek medical advice. Though this vision loss impacts their lives, the fact that it is painless and deteriorates slowly before complete blindness sets in means that there is a long delay in the decision to seek medical advice, due to fear of the outcome of surgery.

4.4.2 Curing cataract with traditional herbs [doubtful]

Participants had different perceptions about the treatment of cataract. Although they knew of certain herbs used to treat cataract, they disagreed on the effectiveness of those herbs when compared with modern medicine (cataract surgery). All the participants were of the view that when one starts having eye problems one must visit the health facility to be told what is wrong with one's eyes. Four thought traditional herbs could cure cataract while one stated that traditional herbs damage the eyes. Two believed that

traditional herbs work for those who are lucky. One participant, a traditional healer stated that she had never treated anyone for a cataract.

4.4.2.1 Traditional medicine (traditional herbs)

These were identified as herbs that are dug from beneath the ground and or green leaves from certain trees. These herbs are ground and then inhaled or instilled in the eyes. The participants identified different local ways of treating cataract. Herbs were thought to have been effective in the past but were no longer useful. Herbs are said to break the cataract, but the mechanism was not clear.

“Oh! They treat it, it is treated..., we use traditional herbs, they instil traditional herbs for the eyes...., so that it can break it, then it clears off, during the olden days when they used this herbs it used to get healed and clears off but for now it doesn't”.

“There are many many types of herbs, when I started having eye problems here, I was taken to one traditional doctor in village X. That man was bringing greenish herbs and will crush them, then put in water and I was given to keep on putting or dropping in my eyes, but I found, Oh! I found no improvement; it was just the same I realized that there was no improvement I could not see, He failed, yes. (MATF01)

With respect to treatment, participants from the focus group were of the opinion that the Kalahari devil's claws² were the drug of choice for eye diseases.

They reported that grinding the leaves and putting them in water, then instilling in the eyes was the cure. Doubt was expressed about the relevance of herb use in the present day, to treat cataracts, as they felt that nowadays people are not in favour of tradition.

“But even today, it does work for others, those who are lucky, when they instil the herbs it does clear off”. Herbs, real herbs, traditional herbs which are dug, the ones we dig underground, traditional herbs, there is 'sengaparile or shola in kalanga', “ the Kalahari devil claws” That is the treatment for eyes, this is the one instilled, You just grind the leaves, then you put in water then you squeeze that into the eyes”. (FG)

² Kalahari devil's claw also known as *harpagophytum procumbens* is an important medicinal plant in southern Africa (Shushu, 2001:378).

4.4.2.2 Cultural practices

The participants claimed that, in the past cataracts could be cured by several cultural practices but they expressed doubt about their effectiveness as there was little evidence of this now. One participant said:

“During the olden days, when we have identified it, we used to say that, the first person to see it on someone’s eye, we used to prick his/her finger then we squeeze off blood and drop that blood right on the eye on top of that white small thing then it clears off”.(MATF06)

Former practices were mentioned with some explanations given for the reason for use in treating cataracts. One male participant described the use of a snail shell as it resembles the ear which they perceived to synchronize with the working of the eye.

“During the olden days they used to look for a snail, ... this thing which we see usually when it rains, we usually find it during rainy seasons moving around, They used to take its cover (shell) when it has left then they put water on it, then they leave that water to stay over night on that shell then in the morning they take that water and drop it in the person’s eyes. They used a snail because if you look closely at the shell it looks like an ear so they believed that the eyes and ears work together”. (MATM05)

Former local herbal/traditional treatments for cataract in Mathangwane such as burning herbs and inhaling the smoke may exacerbate the problem as stated by one participant stated.

“...there are a lot of herbs used but we sometimes find that it’s like there are the ones damaging the eyes completely or to have more problems again” (MATM02).

4.4.3 A problem of the elderly caused by modern food

Participants were not familiar with the actual cause of cataract. Two participants reported that they did not know this condition as they felt it is a problem that has just come, while others thought it is a condition affecting white people. They noticed it was common among people older than 60 years. They associated the development of a cataract with the following factors:

- modern foods
- heredity
- ageing
- insufficient blood supply

- cultural beliefs
- Hypertension.

4.4.3.1 Modern food

All the participants associated modern foods which they were never exposed to in their youth with the development of a cataract. They claimed white people had introduced the foods to them. Tea especially Five Roses³ tea was considered to be the main cause of cataract and six participants stated they had stopped taking it.

“Ah!... it is caused by the food that we eat, I don't really know, things like tea which sometimes does not go along with the blood vessels for the eyes” (MATF05)

“Food that we eat, we don't know, but that is what we think, we just think that is due to the food, food for the whites which we used not to eat when we grow up. May be is the ones which makes us to be sick, that is what we think, we think that may be is due to food, because we used not to eat a lot of things like this, examples cooking oil, etc, tea many types we used not to have them” (MATF04).

Although they associated cataract with ageing the participants claimed that cataract was not as common in the past as it is nowadays as their forefathers died with good vision because they were not exposed to different types of food.

“Yes food, ... because we used not to eat so many types of food like we do nowadays and we used not to be sick, we used not to have eye problems. But now we eat a lot of food, different types, that we used not to eat and we find that our eyes are now giving us problem. During the olden days we used to see eye problems on older people, yes our mothers and our fathers died with their vision they did not lose sight, they were not eating what we are eating nowadays. But nowadays there is no one with good vision. As you see us here, all our age mates, both men and their old women we are all blind. There is no one who is still having her/his sight. Yes it's true that some types of food damages our eyes”. (FG)

4.4.3.2 Heredity

Of the seven participants interviewed, four reported to have one or two family members who either have eye problems or who had undergone cataract surgery, making them believe that cataract is associated with heredity in certain families.

³ Five Roses- A South African tea brand.

“... if you can just observe a certain family and see how many people have had their eyes operated, you can believe that this goes with heredity. Because my grandmother was done eye operation, by then these operations were done in Zimbabwe. She was operated in Zimbabwe and was given glasses, then my aunt also she was operated and used glasses, my mother was also operated and used glasses. Am now the fourth person... that is why I think that blindness goes with heredity”. (MATF06)

4.4.3.3 Ageing

Cataract is perceived to affect older people. The participants reported that although they used to see it in their forefathers, nowadays it appeared common amongst their peers, both males and females.

“ This is because in the olden days, when it was said somebody can not see it was somebody who was an adult, approaching the aging years (elderly) that is when you could find that sometimes that person could no longer see”. (MATM02)

“In most cases, is amongst us, old people, as you see us like this, when you get around 60s and 70s that's when it starts to occlude the eye. In children... it develops but on rare occasions”. (FG)

4.4.3.4 Insufficient blood supply

The participants associated a cataract with an insufficient blood supply to the eye as a result of a headache that causes blood vessels to pulsate.

“When one is having headache, continuous headache, you will see that blood vessels are protruded, you find that they are always protruded, blood not circulating, blood will not be circulating but at a stand still, that is what causes cataract. You will find that the person can no longer see well. When the person is experiencing severe headache, you will find that his eyes start to have blurred vision too. Therefore as s/he experiences blurred vision, the blood vessels some call it “litjinga” or ‘Lephuka’ “a blood vessel” This blood vessel beats/pulsates until it destroys the eye, it damages the eye until it becomes blind, totally blind”. (FG)

4.4.3.5 Cultural beliefs

Although participants identified food as the most common cause of cataract, four associated a cataract with certain cultural beliefs held in the past about child bearing and breastfeeding women. Either the infant or the nursing mother was expected to develop

eye problems. One participant stated that, because her children did not have eye problems as infants, she was now, in her old age, afflicted with the eye problem.

“...I thought it was eye problems for children it has come, eye disease for children for the house (botsetsi) when I have been bearing children. When one bears a child and that child does not suffer any eye problems. Then this eye problem comes or affects the mother. I was thinking its children’s eye problem. mmm.... they did not have any eye problems so I thought, is this eye problem now affecting me? That is what I was thinking. Yes”.
(MATF01)

One participant stated an association between eye problems and certain cultural beliefs about gender differences. This was clarified by a male participant who described a belief that if a man’s wife had been unfaithful, he would go blind.

“Men are not many who are having this problem there are a few of them. They can not be the same number as women, with this problem, According to our cultural belief, we used to say that when we see a men going blind before his wife we then take it that he was cheated by the wife, that’s why his eyes are like that.) ...mmm....like, when you have a husband and during festive seasons like Christmas, mmm... then you go and meet (have sex) with the other man, a different one not your husband then that is what we refer to as cheating or that man impregnate you and then your husband without knowing coming to have sex with you . The husband is the one who goes blind”. (MATM02)

4.4.3.6 Hypertension

Two of the seven participants were on medication for hypertension but only one participant associated hypertension with causing a cataract despite not knowing how these were linked.

“They say that cataract is caused by high blood (Hypertension), high blood causes cataract, because when it started with me I was long diagnosed high blood and on treatment, and am still taking tablets for high blood”. (MATF06)

The actual cause of cataract was not known, nevertheless it was associated with multiple causes but mostly with food. Six of the seven participants believed that food, especially tea and particularly Five Roses tea had an impact on their vision so they stopped using it.

4.4.4 The burden of cataract blindness [*mealie meal on the fire*]

The views of the participants were influenced by their experience of blindness before having had surgery, and while waiting for surgery. Six of the participants reported that vision loss impacted on their activities of daily living, particularly as they lived alone because their adult children worked outside the village. Daily activities were perceived as suffering. Cataract blindness severely curtailed their social activities because they could no longer read or write. For women this impacted on cooking and for men in earning an income.

4.4.4.1 Suffering

The participants expressed extreme suffering when they lost their vision. One participant reported that the burden of cataract blindness was so severe it led her to leave her home and go for surgery.

“ I was just alone, there was no one to make fire for me, when I try to go out of the house, I try to touch here...,later on ... I found that I did not even know what to cook, when I try to cook, when I try to put mealie-meal on the pot I spill it on the fire, I will spill the whole mealie-meal on fire, or sometimes I will think that I had put enough water on the pot, when it starts boiling when I start to put mealie- meal, because the pot will be over filled , water will spill on the fire putting the fire off. I was suffering, I was really suffering, and when I try this I find that I have touched some chicken excretes with my hands”. (MATF06)

4.4.4.2 Dependence

Four participants stated that they could not do anything for themselves due to cataract blindness and had relied on their children.

“Oh! I was suffering... my child, I was suffering... you could find me dirty as this ground here, there was nothing of mine which was going well, this daughter of mine was the one who was cooking for me, there was nothing, nothing everything was scattered. There was nothing... everything was in a mess; I suffered, I really suffered, I suffered a lot, I suffered a lot, others were laughing, there was nobody who was stepping in this yard or visiting me here, they were just passing at a distance. It was so painful you could not see even children coming to me, even these small children”. (MATF01)

4.4.4.3 Impact on social life

Four of the five female participants were widowed. One had been deserted by her husband when she became blind. Their blindness had a significant impact on their social life, impacting negatively on their daily activities and overall wellbeing and health. Being blind due to cataract is perceived to have a significant impact on social life. In the particular social context of this rural village, where most people are subsistence farmers and rely mainly on crop production, a cataract makes it impossible to continue with farming activities, causing financial hardship. Vision was considered to be the most important sense in the human body and without sight one could ingest contaminated food and not be aware of it. Vision loss was also linked to loneliness as a result of the isolation, as when one is blind people no longer visit.

“...there was nobody who was stepping in this yard or visiting me here, they were just passing at a distance. It was so painful you could not see even children coming to me, even these small children”. (MATF01)

At a personal level coping with blindness was perceived to be a great challenge that is accompanied by many losses. One participant was deserted by her husband when he realized that she was blind.

“I was just seated and by that time my husband deserted home, when I was still in village Z with my children, while I was still being assisted by a traditional healer. He left me, I heard this daughter of mine calling to inform me that his father has left, is no longer home. He took all his belongings, when I came back I found that there was no one here, he did not even care when I told him that I am sick. I had to fight for my health with the help from my children. He was going around telling people that “what do I do with a blind woman”. (MATF01)

Participants felt that vision loss impacted on their financial status.

“The reason why you see me more concerned about my vision, is because my future is based on my eyes without my vision I can not be able to write and even survey for the right place to dig this wells to make money for my family”. (MATM02)

Participants felt that loss of vision puts one in danger.

“When you are blind, you don't even see what you are eating you just eat anything you are given, even when something dirty gets into your plate you just eat, my dear I would rather prefer to lose a hand than my eyes” (MATF01)

4.4.5 The ambivalent voice of elderly persons about cataract services

All the participants were aware of the cataract services, especially cataract surgery. Those who had undergone surgery reported that cataract surgery had restored their vision which resulted in them resuming the activities of daily living which they had stopped. The main concern about the cataract surgery was that they were told that they should wait for it to ripen before it could be surgically removed. Having vision loss and being told to return home resulted in disillusionment about the value of keeping follow-up appointments so they preferred to wait until they were totally blind. Participants identified some issues pertaining to accessing the services and came up with measures which they thought might help in improving cataract services.

4.4.5.1 Feelings about cataract services

Participants' feelings about the cataract services were both positive and negative based on whether they had undergone surgery or not. Those who had undergone surgery were most satisfied with the services while those were still waiting for surgery were concerned about the delay, and two had stopped using the prescribed eye drops.

4.4.5.1.1 Appreciation

One participant expressed appreciation that there was no delay in having the surgery.

“With me it didn't take long, I never suffered much, it was very fast. It saves our lives, as for me it rescued me a lot, it saves a lot of people, I found it very good” (MATF05)

One male participant expressed gratitude that the services were provided at no cost to the people.

“I don't have any problems with the services offered, because I find that the government is trying to help us, is taking care of us is really caring, because we are not paying, our government is trying its best to improve our health by trying to improve our vision so that we can be able to walk around and find means of surviving. Am really happy about the services that the government is doing its best because we are not told that this medications are expensive we get it from far away but we just get treatment free without any payments”. (MATM02)

The participants stated that removal of the 'web' from the eye, improved vision and resulted in 'brightness'. The four participants who had undergone surgery stated that

they were able to resume their daily activities. The three who had not undergone surgery expressed a strong need for the cataract surgery as this could restore their sight.

“They cleaned my eyes and I slept overnight. And the following day I was discharged and when they removed the pad or bandage I realized I could see, I could see because they had removed that dirty thing which was in my eyes especially which had occluded this small black part of the eye”.
(MATF01)

One participant stated that the cataract surgery had improved his vision to such an extent that it was like looking into a mirror or through a clear glass.

“Today I can see very well, it even better than this one, its very strong now, the vision is very strong. If I can cover this left one like this I see every thing very well, it so strong like a glass or mirror it’s really strong”. (MATM05)

4.4.5.1.2 Delay

Although hopeful about the outcome of the surgery, the concern of those who had not yet had surgery was about the delay in providing surgery. For the three participants waiting for surgery, this resulted in many follow-up appointments that had little perceived benefit so prescribed medicines were not used.

“It has been long since I have been going to the hospital...They said...mmm! They said it has not completely covered. I have been going there and I will be told come on such a day, I go there again, book, come on such a day, go there book, come on such a day, am never given a day for my appointment but rather am told to come after a year. they say we must go and take our medication at the local clinic, but even those medications, I have given up, how can I be continuously told to go and take medications, go and take medications, then I keep on taking medications without being done anything, no! I have stopped using them”
(MATF07).

4.4.5.1.3 Fear

The fears expressed by the five female participants, three of whom already had surgery, centred around a fear of dying because of the surgery or permanent damage to the eye following surgery.

“...people are scared, they are frightened by others...others frighten them by telling them that the old ladies when they get to the hospital they are scratched with a razor blade. When people hear this, they get scarred and run away forever, thinking that their eyes are going to have some holes

when they are scratched with razor blades. They get scared thinking that their eyes are going to be damaged". (FG)

Generalized perceptions and experiences of other people of their peers who may have had failed surgery, frightened them. One participant stated that despite her fears of the surgery, repeated efforts by her family members resulted in her having surgery.

"People like me, when they hear that so and so went to the hospital for eye operation and she came back guided not able to see, ..., personally I was afraid, I was frightened by the mother to B (mentioning the old lady's name) do you know that the mother to B, went there and they did what? ... I don't know how she was done, she went there while she could see a little bit, she could see just nearer objects, she came back guided, guided totally she was just bumping on walls of the house, even today she is like that since that year or which year that was, but she is now totally blind and its long now. This really frightened me, and then I said, Oh! No! The mother to B, The one I know and then she went to hospital only to come back totally blind and guided am not going there". (MATF04)

4.4.5.2 The help-seeking behaviour

In accessing cataract services participants discussed their condition with either family members or with friends. Despite lay referral from their children or family members and others, the final decision for undergoing surgery was made by the participant.

4.4.5.2.1 Reaction to treatment determined by cultural factors

Before visiting the health facility one participant, herself a traditional healer, consulted another traditional healer and when he failed to help, she thought of going to the hospital. Following several follow-ups at the hospital without assistance she eventually consulted the ancestors as she had neglected to do so for a while and thought she might be having bad luck as a result. The ancestors then gave her permission to go to the hospital and she was promised that she would get help. When she returned to the hospital she was successful in accessing surgery.

"As I am a traditional healer, and dance for our ancestors, I thought that may be there is something which is delaying this, therefore I visited my ancestors to go and ask for permission to go and see the doctor. I went there to seek for permission and I was told that "Yes I have been watching you suffering for long, go and see the doctor they will help you as per your needs or wish and we will forgive you and will pray for you". Then I came back and went straight to the hospital where I found that I was

fortunate and I found the doctor. I think this was giving me bad luck as I had spent a long time home without visiting my ancestors, so I think this was blocking me as I had no body to accompany me". MATF01)

The same participant shared her views about preference for first seeking help from traditional healers rather than from western medicine.

"You know sometimes you will have heard people saying that so and so or there is someone who knows how to treat eyes better than you tell your children that then why can't you take me there to him or to that person (traditional healer)". (MATF01).

4.4.5.2.2 Consultation with family members

It was the custom for females to unduly consult with the extended family about their health problem. This did delay having surgery for at least one participant. She therefore went for surgery without informing her children as they were against it.

"I was suppose to go there I felt scarred, because people were saying when you get there they give you an injection and following that injection then your eye will come out, then I was so scarred. I then decided to stay and missed the appointment date, after missing that date, I stayed for some time and then I realized that my blindness or vision was getting worse, I went back to the hospital and they told me that you missed your appointment date then I said yes I had forgotten, but in truth I had not forgotten but rather was scarred, I was given another appointment date of which when it was due, I missed it again without going there, because people were against the operation including my children, they told me that if I can watch the television, they said "mother you will never go there, its not good at all". (MATF06)

4.4.5.3 Measures to improve services utilization

Participants viewed cataract as a common condition in the community, but nevertheless utilization of services was low because of perceived fears. They felt that provision of transport may benefit those in need of it and those without enough funds, but that if the services were brought to the people, utilization would be even higher.

4.4.5.3.1 Information sharing: 'cataract activist'

From the focus group there was consensus that the community does not trust health workers to give health education and would prefer the community members who had

undergone surgery to do this to build trust, allay anxiety and give encouragement on the outcome of the surgery. These lay motivators could be regarded as ‘cataract activists’ to encourage utilization of cataract services.

“I tell you, just as you do with those people with AIDS, isn’t we hear from them, there are the ones who can tell us the truth, their experiences, saying I was sick but got help or healed by doing this and this, he is the one to say I got healed through this and this just as I tell you right now that when I got to the hospital they did this and this on me”. MATM05).

“...if we had them with us so that those who have not been to the hospital could be sitting amongst us here, as a meeting to listen to what we are saying. They would listen to those who have been to the hospital so that they listen to what they tell them, telling them how they managed to have their vision back. Because if it’s just you, they may think that you are lying, you are trying to cheat her/him, but if they come here and find a group of people like we are today who have been to the hospital but now can see and telling them how our lives were and our experiences, how we were assisted, may be by that they can have hope and think Oh! People have been lying to us here are people who have been there, who have been operated but now can see, Being here and listening to what we are saying, hearing for themselves”. (FG)

4.4.5.3.2 Transport provision

Participants had experienced difficulty getting to Nyangabwe hospital which was 30km from their village and they were expected to travel there several times for follow-up visits having to pay public transport for themselves and their escorts.

“...to assist us is when you as health professionals realizing that truly this person cannot see or his vision is poor and he does not have enough funds, he does not have a car he does not have anything and then you come to visit him/ her at her place to check her progress or how s/he is doing and find out how you can assist with transport to take her/ him to the hospital. Or even find out from him/her how she feels can be treated or helped as she /he is far away from the health facility like if one is some kilometres away like me right here at the land”. MATM02)

“...you take this little earnings you get from your old age pension as it is, without taking out a single thebe and reserve it for that specified day for check-up, you just reserve it. What can you do, you just stay without eating, you stay without food, reserving it for that day you were told to come back. What can you do, nothing, there is nothing you can do”. (MATF07)

4.4.5.3.3 Bringing services nearer

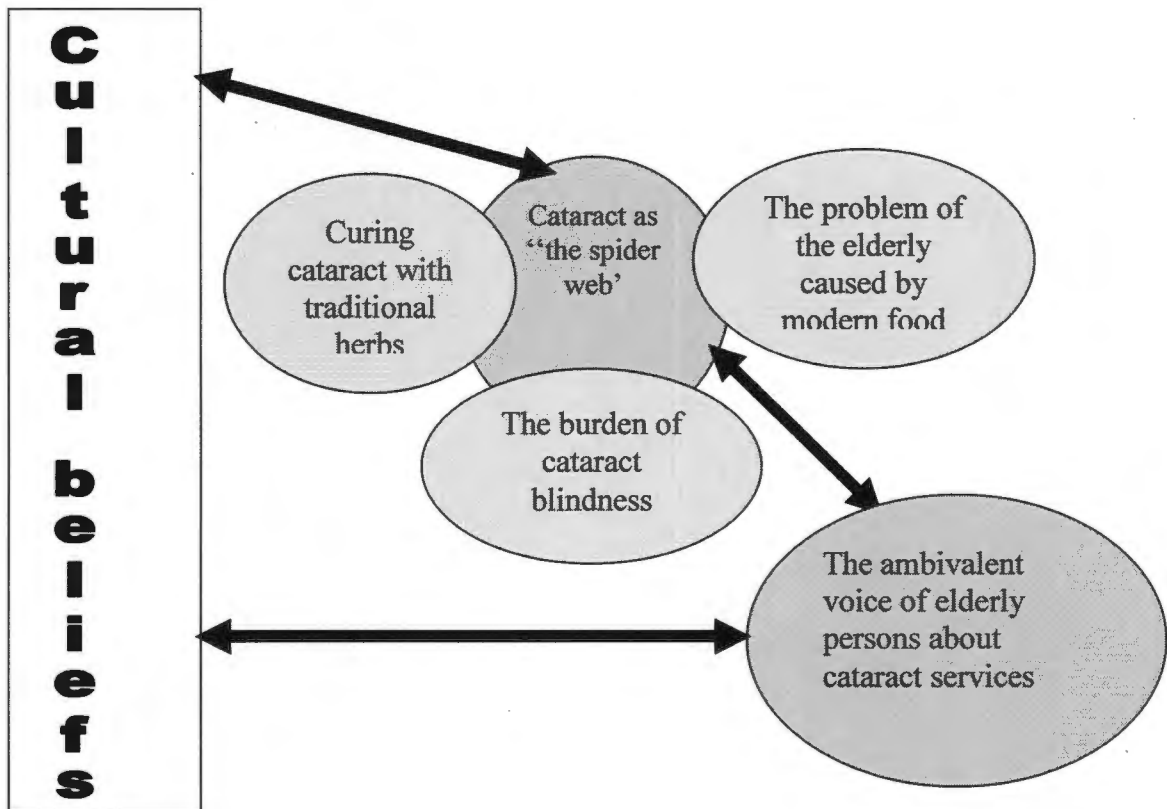
The general consensus pertaining to utilization of cataract services was that the Nyangabwe hospital was very far, particularly for the elderly patients. At times they only needed a repeat prescription for eye drops, which they did not pay for, but the transport costs discouraged collection of medicines. They felt that if services were to be offered at their local clinic this would improve utilization even for those with other eye problems.

“The other thing is that, some time they give you medication and this get finished, just at the middle of the month or when you do not have money for transport to go to town (Nyangabwe) to get those medications. Therefore ... we would like to have these medications here in our local clinic so that we can get them nearer, they must be brought nearer to us. May be if these can be brought nearer to us, may be this can also improve utilization of these services, may be many people can attend because its nearer”. (FG)

4.4.6 Summary of findings

A summary of the findings is presented in diagram 4.4.8.1. The diagram illustrates the two-way influence of culture in defining cataract and on the utilization of cataract services.

Diagram 4.4.8.1: Data showing the relationship between cultural beliefs and perceptions about cataract and utilization of cataract services.



Data in diagram 4.4.8.1 shows the two-way influence of culture in defining cataract and on the utilization of cataract services. Culture played a key role in how the participants described or defined cataract, what causes they associated it with and how they might treat a cataract but not much was forthcoming about ways of preventing a cataract. Culture does not only play a role in understanding cataracts but also in the way that people utilize the cataract services offered.

Participants perceived cataract as a condition that causes blindness. They had a general knowledge of the condition, and their description reflected what they 'saw' as the condition progressed: a whitish thing which develops right in the centre of the small

black part of the eye (pupil), that seals and occludes vision making the eye look whitish, the so called white eye. The white thing was said to resemble a spider web from where the name 'lidandi' (cataract) was derived.

Participants had limited knowledge of the actual cause of cataract but associated it with many factors mainly ageing and modern food. A number of local treatment methods were described, although doubt was expressed about the usefulness of these in today's world. They perceived cataract blindness to negatively impact on their daily activities and social life resulting in suffering, dependence and social isolation.

Participants had different views pertaining to services offered and access to them. Cataract surgery was perceived to restore vision, but there was a concern about delays experienced in accessing cataract surgery which resulted in the participants giving up on the prescribed eye drops and keeping of appointments. Participants expressed some fears which also contributed to the delays in making decisions about seeking medical help. These fears were stated to be experiences of their peers who had had poor outcomes of surgery and fears expressed by the family members for them. Use of alternative medicine (traditional healers) also contributed to a delay in accessing cataract services.

Although participants viewed cataract surgery as restoring vision, they felt that the services were very far away and transport was expensive. They advocated for provision of transport for those in need and services to be brought nearer to the people. Participants felt that to increase utilization of cataract services, those who had undergone surgery could be used as motivators in educating the community about the benefits of cataract services.

CHAPTER FIVE

5.0 DISCUSSION OF FINDINGS

5.1 Introduction

This chapter presents a discussion of the research findings in relation to the literature, implications of the study findings for nursing, recommendations, limitations of the study and conclusions.

In Botswana, little is known about elderly persons' knowledge of cataract and their perceptions of the cataract related services available to them. The World Health Organization (WHO) initiative to eliminate avoidable blindness is particularly relevant for developing countries, and this study has provided an understanding of the perceptions of the elderly persons in respect of one cause of avoidable blindness. Qualitative approaches that seek and value these perceptions provide an important additional knowledge generated by the quantitative surveys that have been done.

5.2 Discussion of the research findings

This study has explored elderly person's perceptions of cataract and cataract services. The findings have described elderly person's beliefs about causes of cataract, local ways of treating cataract, the burden of cataract blindness as well as their ambivalence with regard to the available cataract services. The discussion of the study findings will be based on the five themes that emerged from the analysis which were: cataract as the 'spider web', curing cataract with traditional herbs, cataract a problem of the elderly caused by modern food, the burden of cataract blindness, and the ambivalent voice of elderly persons about cataract services. These themes address the key questions that were targeted with regard to perceptions about cataract and cataract services as per the interview guide (appendices G, H, I).

5.2.1 Cataract as the ‘spider web’

The findings from the present study suggest that cataract is perceived to be the most common cause of blindness among elderly persons (Quillen, 1999:1; Murtha & Cavallerano, 2007:13) and that all the participants had a general knowledge of the description of a cataract, describing it in layman’s terms, as ‘*a whitish thing on the small black part of the eye, right at the centre of the eye*’. This description is similar to that of the participants in the study by Livingston *et al.* (1998:783) in Australia of cataract as ‘*a film over the eye*’. All the participants in the present study had a general understanding of the condition, that it causes opacity in the centre of the eye (the pupil), resulting in blurred vision, double vision and blindness. Owing to this, Porter *et al.* (2004:38) suggest illness to be a subjective experience precisely the way it is defined and responded to, and that it differs from person to person. This implies that the under-utilization of cataract services may not be related to their lack of understanding of cataract, but to other possible factors such as the way they perceive the causes of cataract to be food related. Bhagwan *et al.* (2006:1) reported that lack of information on where to go for surgery might be a contributory factor to under-utilization of services but this was not found in the present study. Participants did know where to go but had to wait for cataract to fully mature and transport costs were high, resulting in under-utilization of services.

There was a description of the second type of cataract which was said to be a skin-like thing which develops from the inner eye towards the small black part of the eye (pupil). Although this was not agreed upon in the focus group, it showed some confusion between a cataract and a pterygium. The most prominent definition of cataract among the participants was the “spider web” (*lidandi*) but one participant described it as both a cataract and a pterygium. This finding confirms the possibility of confusion patients have of eye conditions as reported by Oliveira *et al.* (2005:458) in Brazil. Surgery for a pterygium is more difficult and has a poorer prognosis than cataract surgery (Oliveira *et al.* (2005:458). The above reading suggest that patients need to be informed fully on the differences between cataract surgery and pterygium surgery and the possible outcomes for both for them to make an informed choice. Although this could impact negatively on the way patients may perceive the outcome of pterygium surgery compared to that of a cataract, health professionals should be aware on how to emphasize the importance of cataract surgery for it to be effectively utilized.

Cataract leads to progressive visual loss or blurring, which usually takes months to years, affecting one or both eyes at the same time (Baltussen, *et al.* 2004:238; Kunimoto, Kanitkar & Makar, 2004:322). Findings by Aquirre (2005:134) in Kenya have shown that the main barrier to taking up cataract surgery is being able to manage with one eye, this is different with the present findings as the participants consulted health professionals and were told to wait for the cataract to fully mature. The participants knew where to access cataract services, but the service providers had a negative impact on the uptake of cataract services by requesting them to delay surgery until the cataract had matured.

Although, Baltussen *et al.* (2004:238) and the WHO (2004:1) promoted cataract surgery as the only effective way of treating cataract as there is no other known means of preventing it, findings from the present study nevertheless reveal traditional ways of treating a cataract. The burning and inhaling of smoke described by participants in this study can further damage the eye and there is a recognised link between smoke exposure and cataract formation. Smoke is said to induce oxidative stress and deplete plasma ascorbate, carotenoids and glutathione, which provides antioxidant protection against cataract formation (Pokhrel, *et al.*, 2005:705). Findings from the present study suggest that, although the relevance of herbs in present day life was questioned by the participants, it is difficult for people to be discouraged from their traditional practices as this forms part of their belief system (Temporini *et al.*, 2002:343). This aspect may require further investigation into the effectiveness and safety of these herbs. It is precisely because of these beliefs that some herbs are perceived to be useful in treating cataracts as found in the present study. This led the participants to take a long time to make decisions about seeking medical help, and alternative medicines were preferred to western medicine until the herbs had proved ineffective.

Cataract surgery is usually quite safe and a low cost surgical procedure (Temporini *et al.*, 2002:342). Findings from the present study support this statement, expenses are incurred for transport which results in reluctance in keeping appointments. The safety of cataract surgery was questioned by participants in the present study. The participants expressed an understanding of the benefits of the procedure, although they had doubts about having surgery due to fear of having their eyes completely damaged which may be a contributory factor to the under-utilization of the services. Findings from this study suggest that elderly persons who have cataracts need clear explanations of the safety of the surgery to allay their anxieties and for them to accept cataract surgery. Some participants therefore missed

their scheduled appointments out of fear of the surgery. However, after the surgery the participants confirmed the safety of the procedure and were willing to have the second surgery without delay.

A traditional practice, such as the use of a snail shell was amongst the local ways of treating cataract in the past. Although its mechanism was not well defined in the present study, it may prove effective if further investigation in this regard is done. Moreover, the literature has shown that snails were used in the field of medicine and applied to various ailments from ancient times and are probably still being used in places where a belief in such remedies exists (<http://www.gardensnail.co.uk/medic.htm>). Bonnemain (2005:26) reported that in the 18th century various snail preparations were also recommended for external use with dermatological disorders and internally for symptoms associated with tuberculosis and nephritis. The Food and Drug Administration (FDA) has shown interest in snails, that is, Ziconotide (SNX111), a synthetic peptide obtained from snail venom. The use of snails in the treatment of eye diseases has been shown by Halevi (<http://www.acumedo.com/eye/htm>). The author suggested that the snail shell technique was promising for a significant number of patients in the treatment of eye diseases. Based on these readings, and findings from the present study, the use of snails in treating eye diseases needs further investigation.

The use of traditional herbs and other cultural practices found in the present study is not surprising as the Batswana are a diverse society with different cultural beliefs and practices. However, the cultural practice where the first person to identify the cataract in another individual pricks his own finger and then drops this blood onto white spot on the eye of the other person, is unsafe especially nowadays with the high prevalence of Human immune deficiency virus (HIV) in Botswana. Further research is needed into the traditional ways of treating cataract and the impact of these practices on the eye particularly with the availability of traditional herbs and the local practices in place to treat cataract. Furthermore, some individuals may still prefer to be treated with local herbs as they are accessible. This could contribute to poor utilization of cataract services. Porter *et al.* (2004:38) note that it is worthwhile understanding people's beliefs as these beliefs influence whether they seek health care, the type of health care they seek and also reasons for seeking professional advice.

As observed by Baltussen *et al.* (2004:238) and Resnikoff *et al.* (2004:844) that the most frequent cause of cataract is the ageing process. Generally participants in this study linked

cataract with ageing. Having this perception may result in elderly persons not utilizing the cataract services from a belief that this is part of the ageing process and there is therefore no need for surgery. A study by Rotchford *et al.* in South Africa (2002:289) revealed that participants felt that blindness in old age is not an illness or disease but an intrinsic and irreversible part of ageing. This was not found in the present study, because participants in the present study linked cataract with ageing and yet perceived the need for surgery.

Although the participants in the present study believed cataract to be age-related, they perceived cataract to be mainly caused by drinking Five Roses tea thereby supporting findings from the study by Bhat, Harish, Kantharaju, Manesh and Sheetha (2000) cited by Kantharaju and Bhat, (2007:174) that local beliefs about cataract blindness were associated with socially related activities like drinking too much tea, over exposure to smoke, heat in the kitchen and heredity. Participants in the present study had reportedly stopped drinking Five Roses tea in favour of Rooibos tea as a means of trying to fight blindness due to cataract. Nutritional Factors are associated with the risk of cataract in the elderly (Tavani, Negri & Vecchia, 1996:43) and consumption of five or more cups of tea per day was inversely associated with cataract while coffee apparently had no effects. The literature in this regard refers to black and green teas which are not commonly used in Mathangwane especially among the elderly. Findings from this study clearly show that elderly persons lack knowledge on the causes of cataract.

A study by Temporini *et al.* (2002:345) found that women associated the onset of cataract with menopause, maternity and menstruation and one participant in the present study linked cataract with childbearing. This has implications for utilisation of cataract services which therefore requires that thorough health education has to be done especially on issues related to reproductive health to both men and women. The belief that cataract blindness in men is due to unfaithfulness on the partner's side (wife) in the present study may result in men not utilising cataract services for fear of being stigmatized by the community. A further gender-based issue is related to indoor cooking practices (Pokhrel *et al.*, 2005:706) in Mathangwane and the type of housing where the kitchen is a hut with a grass roof and no windows and therefore poor ventilation. Women are more exposed to smoke than men as they spend most of their time in the kitchen. Old women are reportedly less likely to be encouraged and supported to have surgery than old men (Lewallen & Courtright, 2006:60) and in many cultures women cannot travel unless accompanied by a male but this was not found in the present study. This implies that culture differs from society to society,

although in this study there was resistance from certain family members it was due to fear of the surgery for their family member.

Quality of life and social functioning are dependent on vision and vision loss decreases the ability to live independently and to function socially (Courtright, 2003; Obstbaum, 2006:1750). Findings from the present study are consistent with this statement and it also supports a study by Patel *et al.* (2006:270) in India which revealed that vision was regarded as the most important sense and any loss would lead to a major disability. This is particularly important when a person has bilateral cataracts. The burden of cataract blindness was an important finding particularly when there is nobody to assist them, resulting in difficulties with mobility, activities of daily living and it deprived them of a sense of privacy. Elderly persons living with cataract blindness experience isolation as they perceived that following vision loss, 'nobody visits you'. This implies that cataract blindness predisposes elderly persons to depression and low self-esteem as they are no longer involved in family and community issues. Furthermore, the society at large is deprived of their valuable contribution to social mores. For women, social isolation is more marked as one participant reported to have been deserted by her husband following vision loss.

A further implication of social isolation of older persons is that in Botswana it is estimated that 120000 children had lost their parent(s) to AIDS by the end of 2005 (UNAIDS, 2006). The ophthalmic professionals have to ensure that elderly persons' vision status is good to ensure proper care giving and also to decrease their risk of contracting the disease while caring for their sick children due to poor vision.

The findings of the present study call for vigorous educational campaigns. These include the following: information on where to go for surgical services (Bhagwan *et al.*, 2006:1); health professionals in the field of ophthalmology should provide information to the community in ways that are easily accessible, affordable, acceptable and easily understood in the form of talk shows on television and radio; explain the differences between a cataract and pterygium; and the need for health professionals explain fully what they mean by a mature cataract and the reasons for having to wait for a cataract to mature as this discourages the community therefore contributing to the under-utilization of cataract surgery.

The community needs to understand the importance of early cataract detection and the benefits of cataract surgery as it has been shown to be the only effective treatment for

cataract as noted by Baltussen *et al.* (2004:238) and the WHO, (2004:1). The community at large needs to be sensitized about the safety of cataract surgery and its benefits. In addition, when conducting campaigns the motivators should be those who themselves had undergone surgery with good outcomes to encourage their peers to have surgery. Educational strategies should focus on the benefits of cataract surgery including the risks and the burden of cataract blindness at individual, family and national level.

5.2.2 The ambivalent voice of elderly persons about cataract services

Baltussen *et al.* (2004:339) observed that cataract surgery is aimed at rehabilitating blind or visually impaired people by restoring their vision to normal or as near normal as possible. Findings from the present study confirm the importance of cataract surgery as participants appreciated surgery to have had greatly improved their vision resulting in them resuming their daily activities. Most of the health facilities offering eye care services are located in urban areas (Ashaye *et al.*, 2006:887), which is the similar situation in Botswana and participants in the present study had to spend money on public transport to access these services. These elderly persons with diminished vision may get lost en route to the health facility or be involved in motor vehicle accidents. In Botswana there are no pedestrian crossing facilities for the visually impaired. The findings of the present study are consistent with those from the national survey by Nkomazana (2007:9) that cost was one of the main reasons for not seeking cataract surgery as participants also needed funding for escorts.

Lewallen and Courtright (2000:21) reported that most cataract blind live in rural areas while ophthalmologists live in urban areas. This is true also for Botswana, as residents of Mathangwane village have to travel to Francistown where cataract services are offered. Although Snellingen *et al.* (1998:1425) argued that patients with severe loss even when offered transport and free surgery show under-utilization of cataract services, Lewallen and Courtright (2000:21) observe that distance as a barrier may be reduced by setting up outreach programmes in rural areas and providing transportation, that is, from villages directly to the hospital and back. If this can be considered in Botswana, utilization of cataract services should improve.

On the other hand one can argue that free provision of services does not guarantee its effective utilization. In Botswana health services are free, the participants also confirmed that they did not pay anything for surgery but what bothered them was money for transport.

This is observed by Lewallen and Courtright (2000:20) arguing that it would be a mistake to assume that providing free cataract surgery automatically leads to high cataract surgical coverage. This therefore means that the ophthalmic professionals need to make the services acceptable and accessible to the elderly who are not familiar with technology.

The findings from the study suggest that elderly persons are told to wait indefinitely for the cataract to fully mature before it can be surgically removed which they found frustrating (Patel *et al.*, 2006:270). This resulted in the elderly persons giving up on their prescriptions and missing scheduled appointments. To reduce visual impairment in an ageing community, timely examinations and appropriate treatment are necessary (Livingston, *et al.*, 1998:780). According to Vaidyanathan *et al.* (1999:107) when patients report for treatment and are told to wait, this could indicate that either the capacity of the providers to take care of the increased demand is limited or the VA indication for surgery is too low.

Dhaliwal and Gupta (2007:134) argue that with the present era of microsurgery, it is no longer necessary to wait for cataract to mature before being operated on. Furthermore, many phacoemulsification surgeons prefer operating on immature cataracts. With the above readings and findings from this study, it is worth noting that health care providers especially at managerial level should source funds to purchase advanced equipment to meet the demands of cataract blindness.

In a study by Dhaliwal and Gupta (2007:134), patients delayed cataract surgery despite having bilateral blindness. Furthermore, delaying interventions makes situations worse for the patients and their relatives. Having cataract surgery while there is still useful vision in the fellow eye allows the patient to travel unaccompanied and look after himself in the hospital, thus reducing the dependency and burden on relatives (Dhaliwal & Gupta, 2007:134). Foster (2001:636) states that to eliminate unnecessary blindness from cataract there is a need for ongoing services which every year will deal with the new cases. In addition, the author argues that Vision 2020 is about sustainable services rather than one-off campaigns targeting backlog. Furthermore, sustainability implies the ongoing availability of adequate resources (that is people and funding). The ophthalmic professionals in Botswana, need to develop strategies to deal with these constraints in order for cataract services to be fully utilized and have the target goals for eliminating avoidable blindness by the year 2020.

Fear of dying and having the eye permanently damaged due to cataract surgery was a deterrent to having surgery and this was more notable among the women participants. Other studies have reported the same findings (Oliveira *et al.*, 2005:457; Rotchford *et al.*, 2002:289). With respect to fear of surgery, previous research has shown that patients reported their highest levels of anxiety preoperatively (Nijkamp *et al.* (2004:1312). Furthermore, immediately after the surgery the level of anxiety dropped, probably because of the relief. These findings show the need for thorough preoperative counselling by the ophthalmologists and ophthalmic nurses and the need for follow-up care with local clinics when patients do not turn up for their scheduled cataract surgery.

Other barriers to uptake of cataract surgery include contact with individuals who have had bad experiences, lack of encouragement from family and distance from the service (Hubley & Gilbert, 2006:280). These factors were confirmed in the present study. Consultation with family members was found to contribute to some delay in help-seeking behaviours due to fear expressed by the family members for the elderly person. This implies that there is a need for family members to be educated about the benefits of cataract surgery. Nirmalan, Katz, Robin, Krishnadas, Ramakrishnan, Thulasiraj and Tielsch (2004:1237), in their survey done in India found that the lack of social support for the elderly may possibly explain the lower utilization of eye camps among those aged 70 years and older and by the severely blind population. Elderly persons and their relatives have to be fully informed of what cataract is and the fact that cataract surgery is the only possible treatment at present so that they can give a fully informed consent.

For cataract services to be accepted and fully utilized by elderly persons, the same principle used for adolescents and the youth in Botswana, namely 'ngwana o ruta ngwana' (a child understands better if she is taught by her peers) could be applied in education for elderly persons. People who have had cataract surgery could educate their peers who still have fears and are doubtful about the outcome of cataract surgery. Participants were cautious and conservative and tended to distrust new and unfamiliar things and would rather have another person undergo an operation so that they could wait and see the outcome before making a decision about themselves (Wormald, 1999:6).

In recognizing and reducing barriers to cataract surgery, Lewallen and Courtright (2000: 21) reported that lack of knowledge as a barrier may be reduced by using patients who had had successful operations as educators and motivators. While satisfied cataract patients can serve as excellent motivators for others to have surgery, patients with poor results can have

the opposite effect. This was found in this study as some patients claimed that they delayed going for surgery due to fear after seeing others who had gone for surgery and came back totally blind.

The lack of awareness of the presence of a cataract found by Nkomazana (2007:9) and the strangeness of hospitals (Francis, 2006:58) were not found in this study. This implies that participants in the present study could identify a cataract and were not worried about the strangeness of the hospital and these may not have relevance in their underutilization of cataract services.

5.3 Summary of the study findings

Cataract is the main cause of blindness in Botswana affecting elderly persons. An earlier study in Botswana suggested that cataract was the cause of blindness in most of the people who were found to be blind. The reasons for not going for surgery were lack of awareness of the cataract, lack of escorts and fear of the operation. When compared with the earlier study, the present study suggests that cataract still remains the leading cause of blindness as perceived by elderly persons. In addition, fear was a barrier for utilization of cataract services as in the earlier study. Findings from the present study compared with published literature shows that the participants had a general knowledge about cataract though limited in terms of causes. The elderly persons appreciated the cataract service as it restored their vision but they pointed out key issues which they felt were a barrier in using the services. These were: the cost of public transport, as services were far away, being turned away and told to wait for the cataract to fully mature. The present study suggests the strong role played by the family members in help-seeking behaviour. Findings from the present study indicate that the family can be an obstacle in utilization of services and can also be a catalyst in making decisions to utilize cataract services. This was found in the present study as the family played a role in delaying seeking medical advice for one participant while encouraging another to have surgery despite her fears.

With respect to the aim of Vision 2020, findings from the present study suggest that a lot still needs to be done to educate the target population. The use of available research findings is necessary in developing strategies that can help increase utilization of cataract services. The present study suggests that there are limited resources which result in poor utilization of cataract services. The age of the people in need and the distance that has to be

travelled, makes it imperative for the provision of transport and having outreach programmes. There is a need for ways to disseminate information effectively to communities to increase utilization of services.

The role of culture in influencing help-seeking behaviour and how illness is defined and treatment is perceived needs serious consideration. The only effective treatment for cataract is cataract surgery. The community needs to be continuously educated in this regard. The involvement of influential people in community education, such as community leaders, traditional healers, politicians and social workers is crucial. The use of 'cataract activists' as motivators needs to be considered in information sharing and mass media campaigns to create awareness of the condition and its management.

The present study suggests that, to achieve the Vision 2020 objective of eliminating avoidable blindness, what is needed is collective cooperation, instilling trust in elderly persons who are the major consumers of cataract services, considering transport costs, counselling patients, further training for service providers and increasing the manpower for eye outreach services.

5.4 Implications

5.4.1 Nursing education

The findings from this study suggest that nurse and community educators should collaborate and assist in educating the community about the common causes of blindness, preventive measures and management to reduce the number of people who become blind due to conditions that can easily be cured such as cataract. There is also a great need to include ophthalmology in the curriculum for pre-registered general nurses. However, "[N]ursing patients with ophthalmic conditions requires specialist knowledge and skills. General nurse education does not prepare nurses to care for the wide range of problems that ophthalmic patients present" (Waterman, Hope, Reed, Clayton, McQueen, Owen, Stott & Studley, 1995:915) therefore there is also an urgent need for postbasic ophthalmic nurse training for early detection of avoidable blindness and early referral. Ophthalmic nurse practitioners need to have advanced education so that they can perform an initial assessment of all patients and then plan for further management and referral of those patients they cannot manage. In addition, there is need for continuing education of

professional nurses particularly in primary care level clinics in culturally sensitive nursing practice and communication skills for interacting with elderly persons.

5.4.2 Nursing practice

There is little published information on the role of the ophthalmic nurse practitioner except for what is coming from Australia (Kirkwood, Coster, & Essex, 2006). The role of the ophthalmic nurse in Africa is not described at all in the published literature. The findings in the present study provide some information about this role for the African context. This role should be well defined at primary, secondary and tertiary level of health care.

Findings imply that elderly persons with vision impairment due to cataract need counselling to overcome traditional beliefs and barriers before willingness to submit to surgery. The findings from this study may guide the design of specific interventions for patient education. There is a need to educate the public on what cataract is, what its causes are, the burden of cataract blindness and the benefits and safety of surgical treatment particularly for the Botswana context. The challenge for ophthalmic nurses in Botswana is the need to develop preoperative and postoperative brochures on cataract management for literate and illiterate patients.

5.4.3 Nursing research

Findings from this study imply that more research needs to be done on the number of trained ophthalmic nurses in Botswana by ophthalmic nurses. In addition, research is needed to find out what the public knows about eye diseases, their causes and treatment. This may help in identifying the knowledge gaps they have to encourage utilization of available, free cataract services. Further investigation is also needed into family members' perceptions of the needs of an elderly person with cataract blindness with an emphasis on women with blindness as family members strongly influence utilization of cataract services.

5.4.4 Nursing management

At a community level there is need for affordable and accessible transportation services for elderly persons seeking cataract services. There is a great need for an increase in manpower to help all those in need of cataract services. More funds have to be allocated for the practice of ophthalmic nursing for outreach services at primary level to purchase mobile equipment such as slit lamps for rapid and accurate assessment of all eye

conditions. Ophthalmic nurse managers should advocate for low visual aids and pedestrian crossing facilities for the visually impaired.

5.4.5 Recommendations

5.4.5.1 Educational strategies: information provided to the community on cataracts should be easily accessible for example using mobile outreaches, affordable, acceptable and easily understood and should involve policy makers and community leaders. Funding should be provided for national and local television and radio campaigns for outreaches in the form of a national eye awareness week and other such strategies to schools, shopping centres in urban areas and the most remote villages. Elderly persons who have undergone surgery may be used as motivators for those who might still have fear or uncertainties about cataract surgery, to stress the benefits of cataract surgery and where to go for this surgery.

5.4.5.2 With the limited number of ophthalmologists in Botswana ophthalmic nurses should introduce eye clinic services and do monthly check-ups at all local clinics for early diagnosis and prompt referral of eye conditions particularly of the elderly to reduce the burden of cataract blindness. The use of an outreach approach may also be effective in managing elderly patients who find transport a problem in accessing cataract services. Eye screening competencies should be taught and assessed by ophthalmic nurses to increase the pool of eye care services at primary level. Certificates of competency can be awarded for annual renewal.

5.4.5.3 The traditional ways of treating eye diseases need further investigation to assess their effectiveness. The collaboration of traditional healers in treating cataract has to be taken into consideration in Botswana. Further research into the use of herbs, alternative medicines and community practices needs to be considered.

5.4.5.4 Funding has to be sourced to assist in buying equipment and for training more ophthalmic personnel to assist in screening, early diagnosis and treatment of cataracts to prevent cataract blindness.

5.4.5.5 There is a need to improve the wellbeing of elderly persons through frequent eye screening for early management and referral so as to improve their role in caring for their sick adult children and children orphaned by AIDS.

5.5 Limitations of the study

As this was a small qualitative study, findings of this study cannot be generalized to all the people in Botswana or all villages in Botswana. This study has however, identified areas for education and research which will contribute to achieving the World Health Organization goal of eliminating avoidable blindness by the year 2020.

5.6 Conclusions

The data from this study show that although there is a general understanding of what a cataract is, there is still a gap in the community's knowledge on causes and treatment of cataract. This will have to be addressed if cataract services are to be promoted. It is worth taking note of traditional ways of treating cataract as this may provide a way of doing further investigations into the forms of treatment which might benefit the field of ophthalmology. The results of this study support published studies on the the level of anxiety experienced by elderly persons which leads to poor utilization of eye care services and delays in accessing cataract surgery. Cataract services should be readily available in rural areas for easy access by all elderly persons, that is, through outreach approaches.

Findings from this study highlight the plight and pathos of the cataract blind elderly person, best captured in their own words 'suffering' and 'mealie meal on the fire'.

5.7 References

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APPENDIX A- Consent form (individual interviews: English)
PARTICIPANT'S INFORMATION SHEET AND CONSENT FORM
FOR INTERVIEWS

UNIVERSITY OF CAPE TOWN-DIVISION OF NURSING AND MIDWIFERY

NAME OF RESEARCHER: Ms KEELEDITSE NDLOVU
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TOPIC: PERCEPTIONS OF ELDERLY PERSONS IN MATHANGWANE, BOTSWANA
ABOUT CATARACTS AND CATARACT SERVICES

My name is Mrs. Keeleditse Ndlovu, a Master's degree student at the University of Cape Town, South Africa. I am in the process of carrying out a study on perceptions of elderly persons in Mathangwane, Botswana about cataracts and cataract services. The purpose of this study is to explore and describe perceptions the elderly persons have of cataracts and cataract services.

If you agree to take part in this study, you will be asked questions about your opinions of cataract and cataract services. The conversation will be recorded on an audio-tape recorder so that the researcher can correctly get all the information you have said. The audio-tape will be kept in a secure lockable place to which only the researcher has access and these tapes will be destroyed following publication and dissemination of the results. You are allowed to freely decide on the place for interview wherever you feel comfortable. This conversation will take about 30–45 minutes.

Please note that all information provided will be anonymous and you will not be personally identified in any publication containing results from this study. Only the researcher will know the code number linked to your answers. All information will be used for the purposes of this study alone. Your participation in the study is voluntary and there is no penalty for refusing to take part. You will be free to withdraw from this study at anytime after signing the consent form without giving a reason and your medical care will not be affected. During the interview you will be free to choose not to answer any of the questions and to request for the audio-tape recorder to be put off.

You are welcome to ask anything you are not clear of about the study and if you require any further information about the study, please contact me or my supervisor at the above telephone numbers.

Thank you for your attention.

Name of Researcher: Ms Keeleditse NdlovuSignature.....

Name of Supervisor: Mrs Una KyriacosSignature.....

PARTICIPANT CODE NUMBER:

TITLE OF PROJECT: PERCEPTIONS OF ELDERLY PERSONS IN MATHANGWANE, BOTSWANA ABOUT CATARACTS AND CATARACT SERVICES.	
NAME OF RESEARCHER: Ms. KEELEDITSE NDLOVU	
The participant should complete the whole of this form himself/herself or should have answered all of these questions if unable to fill in this form*	Please circle your answer
Have you read the Participant Information Sheet or has the Participant Information Sheet been read to you?	YES/NO
Have you had an opportunity to ask questions and discuss the study?	YES/NO
Have you received satisfactory answers to all of your questions?	YES/NO
Have you received enough information about the study?	YES/NO
May I have a look at your outpatient card that is in your possession to confirm your diagnosis?	YES/NO
Do you understand that you are free to withdraw from the study : _____	YES/NO
☞ At any time? _____	YES/NO
☞ Without having to give reasons for withdrawing? _____	YES/NO
☞ And without affecting your future medical care? _____	YES/NO
Do you agree to take part in this study?	YES/NO
PARTICIPANT: (NAME IN BLOCK LETTERS)	
SIGNATURE OR THUMB PRINT	Date
SIGNATURE OF RESEARCHER	
	Date

APPENDIX B- Consent form (individual interviews: Kalanga)

ZIBIZO YE NGINILILI NE KWE YENDISO YE SHAKISISO NE NDEBELEKO

YUNIVESITI YE CAPE TOWN- LEBANGA GWE BAENGI

ZINA LE NSHAKI WE MAZWIWO: Ms KEELEDITSE NDLOVU

ZINA LE NTUNGAMILE WE NSHAKISISI: UNA KYRIACOS

NHALA WE NSHAKI WE MAZWIWO: 027768650731/ 0026771450729 (fone ye tunji)

NHALA WE NTUGAMILE :(027761422676) (fone ye tunji)

MAZWIWO E BAKWEGU BA KA MATHANGWANE NGE KWE BUGWELE GWE

LAMBGWA LE MESHO NE NDAPO YA GO.

Ndimi Keeleditse Ndlovu.ndo ngina ikwele (university) tje CapeTown. Ndi mu e ndiso ye ku shaka mazwiwo e bathu baka kwegula ba ka Mathangwane ne kwe bugwele gwe lambgwa le mesho ne bo ndapo yago. Mabanga e ye ndiso iyeyi ye ku hwa mazwiwo ne seko kwa muno ziba lambgwa le mesho ne ndapo yago.

A mu duma ku nginilila yendiso iyeyi, mo wo be mu buzwiwa mazwiwo enyu ne kwe lambgwa le mesho ne bu ndapo yago. Mu Ndebeleko yedu to wo be ti tola mahwi ne tji tola mahwi (audio tape recorder) kuti ndi tjenese kose kwa ma leba. Mahwi a ndi tola i nooti nda pedza yendiso iyeyi nda muzibisa tja nda ka wana ndi be ndi pisa kose kwa ma ka togwa mahwi. Ndo be nda ka biga mahwi a nda ka tola pasina o nga bona a ise imi koga. Ndebeleko yedu eno tola tjobaka tji gapa metsutsu ele makumi (30) ma tatu ku yenda ku makumi manna ana bo shanu (45). Ndo mu kumbila kuti munga bona kwa mono shaka kuti tinga lebelekela ko ko sina zoba.

Ndo mu zibisa kuti ku nginilila ye ndiso iyeyi a koto pateletsiwa ntu, a mu singa shake mu leba a kuteli nlandu kodwa mu mazwiwo e ntu ku nginilila endiso. Ndo mu zibisa kuti kose kwa mu no leba a ku too shingisiwa mazina enyu, ndimi koga ndino o ziba tja ma leba ne kuti a ndi too kwala mazina muna tja ma leba. Ndo mu zibisa kuti a ndebeleko ya ka dwilila kusina tja mu nga leba kana manyala mu nga ndi budza. A kuna tja mu nga ikhwa kakale a mu nga buzwiwe ku ti kwa tini.

A mu si nga shake ku togwa hwi taka dwilila mu lebe kuti ndi mise tjitola mahwi (audio tape recorder). A mu shaka ku buzwa tjingwe kana kuna tingwe tja musa wisisa nekwe endiso iyeyi mu nga ndi buzwa ngwenu kana a kuna tjingwe tja muga bona mu singa tji bate zwibuyanana munga ndi lidzila kana mu ka lidzila ntungamili wagu mu nhala u pezhugwi.

Ndaboka

Zina le nshakisi: Mme Keeleditse Ndlovu

Tjinyala.....

Zina le ntugamili we shakisiso: Mme Una Kyriacos

Tjinyala.....

NGINILILI:

MAZWIWO E BAKWEGU BA KA MATHANGWANE NGE KWE BUGWELE GWE LAMBGWA LE MESHO NE NDAPO YA GO.	
Zina le nyendisi we shakisiso	
Nthu u no buzwiwa wa ka fa nila kuti a zhadze pampiri iyeyi kana a be a dabila buzo dzose dzi mu pampiri iyeyi	Shala ma mazwiwo a wo
A ma bala pampiri ye ba nginilili kana mai baligwa?	Ee/Aa
A ma piwa tjobaka tje ku buzwa dzibuzo?	Ee/Aa
A ma shathisiwa nge dabilo dza ma piwa?	Ee/Aa
A ma hwisisisa kose nge kwe yendiso ye ku shakisisa yendiso i yeyi	Ee/Aa
A mo dumana ne kuti nshakisisi u nga linga dzikarata dzenyu dze bunganga	Ee/Aa
A mo hwisisa kuti mu nga buda kana misa dzibuzo tjobaka tjingwe ne tjingwe mu si nga pe mazwiwo e kuti ini mu singa tja shake kakale a ku too thama tjingwe mu yendiso yenyu ne be bungaga	Ee/Aa
A mo dumana ne ku nginilila yendiso iyeyi?	Ee/Aa
Zina le nginilili:	
Tjambiso ye tjinyala tje nginilili	Zuba
Tjinyala tje nshakisi	Zuba

NOMORO YA MO TSAYA KAROLO:

SETLHOGO: MAIKUTLO A BAGODI BA MOTSE WA MATHANGWANE KA GA BOLWETSE JWA LETHA LA MATLHO LE KALAFI YA JONE.	
Leina la motsamaisa patlisiso	
Motho yoo botswang o tshwanelwa ke go bo a tladitse pampiri e kana a arabile diputso tsotlhe tse di mo pampiring e.	A gelela karabo ya gago
A o badile pampiri ya ba tsenelela patlisiso kana o e baletswe?	Ee/Nyaa
A o filwe sebaka sa go botsa dipotso?	Ee/Nyaa
A o kgotsofaletse dikarabo tse o di filweng?	Ee/Nyaa
A o tlhalogantse ka ga patlisiso e e tsamaisiwang ka teng?	Ee/Nyaa
A o dumelana le gore motsamaisa patlisiso o ka leba dikarata tsa gago tsa bongaka	Ee/Nyaa
A o thaloganya gore o letlelesega go tswa mo patlisisong kana puisano nako ngwe le ngwe e o batlang ka yone o saa fe mabaka a tshwetso ya gago ebile go dira jalo ga go na go amana gope le tirisano ya gago le ba bongaka?	Ee/Nyaa
A o dumelana le go tsaya karolo/ tsenelela patlisiso e?	Ee/Nyaa
Leina la motsayakarolo:	
Monwana wa motsayakarolo	Letsatsi/ngwaga
Monwana wa motsamaisa patlisiso	Letsatsi/ngwaga

APPENDIX D- Consent form (Focus group: English)
PARTICIPANT'S INFORMATION SHEET AND CONSENT FORM
FOR FOCUS GROUP

UNIVERSITY OF CAPE TOWN - DIVISION OF NURSING AND MIDWIFERY

NAME OF RESEARCHER: Ms KEELEDITSE NDLOVU

STUDENT NUMBER: PHLKEE001

NAME OF SUPERVISOR: Mrs UNA KYRIACOS

Researcher's contact details: 027768650731/ 0026771450729 (mobile)

Supervisor's contact details: (027761422676) (mobile)

TOPIC: PERCEPTIONS OF ELDERLY PERSONS IN MATHANGWANE, BOTSWANA ABOUT CATARACTS AND CATARACT SERVICES

Greetings! My name is Mrs. Keeleditse Ndlovu, a Master's degree student at the University of Cape Town, South Africa. I am in the process of carrying out a study on perceptions of elderly persons in Mathangwane, Botswana about cataracts and cataract services. I would like to talk to you about taking part in the group discussion which will be conducted at the Chamabona Community Junior School hall. The purpose of this study is to explore and describe perceptions that elderly persons have of cataracts and cataract services.

If you agree to take part in this study, you will be requested to join a group discussion lasting about 1-1 ½ hrs. The conversation will be recorded on an audio-tape recorder so that the researcher can correctly get all the information we have discussed. Please note that all information provided will be anonymous. No one except the group members and the researcher will know that you took part in the study. The audio-tape will be kept in a secure lockable place to which only the researcher has access and the audio-tapes will be destroyed following publication and dissemination of the results. I will not record your name and or any other personal details about you during the group discussion. I request that participants should not reveal information they may have heard in the group outside the group. Even though I will request participants in the group not to reveal anything to others, I cannot guarantee this. I will protect information about you and your participation in the study to the best of my ability. If the results of this study are published, your name will not be shown.

All information will be used for the purposes of this study alone. Your participation in the study is voluntary and there is no penalty for refusing to take part. You will be free to withdraw from the group discussion anytime after signing the consent form without giving a reason and your medical care will not be affected. During the discussion you will be free to choose not to answer any of the questions.

You are welcome to ask anything you are not clear of about the study and what your expectations are in the group discussion. If you require any further information about the study, please contact me or my supervisor at the above telephone numbers.

Thank you for your attention.

Name of Researcher: Ms Keeleditse Ndlovu (contact details 027768650731/ 0026771450729) (mobile)

Name of Supervisor: Mrs Una Kyriacos (027761422676) (mobile)

PARTICIPANT CODE NUMBER:

TITLE OF PROJECT: PERCEPTIONS OF ELDERLY PERSONS IN MATHANGWANE, BOTSWANA ABOUT CATARACTS AND CATARACT SERVICES.	
NAME OF RESEARCHER: Ms. KEELEDITSE NDLOVU	
The participant should complete the whole of this form himself/herself or should have answered all of these questions if unable to fill in this form*	Please circle your answer
Have you read the Participant Information Sheet or has the Participant Information Sheet been read to you?	YES/NO
Have you had an opportunity to ask questions and discuss the study?	YES/NO
Have you received satisfactory answers to all of your questions?	YES/NO
Have you received enough information about the study or you expectations in the group discussion?	YES/NO
May I have a look at your outpatient card that is in your possession to confirm your diagnosis?	YES/NO
Do you understand that you are free to withdraw from the study : _____	YES/NO
☞ At any time? _____	YES/NO
☞ Without having to give reasons for withdrawing? _____	YES/NO
☞ And without affecting your future medical care? _____	YES/NO
Do you agree to take part in this study?	YES/NO
PARTICIPANT (NAME IN BLOCK LETTERS)	
SIGNATURE OR THUMB PRINT	Date
SIGNATURE OF RESEARCHER	
	Date

APPENDIX E- Consent form (Focus group: Kalanga)

ZIBIZO YE NGINILILI NE KWE YENDISO YE SHAKISISO (SHANGANILLO YE NDEBELEKO)

YUNIVESITI YE CAPE TOWN- LEBANGA GWE BAENGI

ZINA LE NSHAKI WE MAZWIWO: Ms KEELEDITSE NDLOVU

ZINA LE NTUNGAMILE WE NSHAKISISO: UNA KYRIACOS

NHALA WE NSHAKI WE MAZWIWO: 027768650731/ 0026771450729 (fone ye tuntji)

NHALA WE NTUGAMILE :(027761422676) (fone ye tuntji)

MAZWIWO E BAKWEGU BA KA MATHANGWANE NGE KWE BUGWELE GWE LAMBGWA LE MESHO NE NDAPO YA GO.

Ndimi Keeleditse Ndlovu ndo ngina ikwele(university) tje CapeTown. Ndi mu e ndiso ye ku shaka mazwiwo e bathu baka kwegula ba ka Mathangwane ne kwe bugwele gwe lambgwa le mesho ne bo ndapo yago. Mabanga e ye ndiso iyeyi ye ku hwa mazwiwo ne seko kwa muno ziba lambgwa le mesho ne bu ndapo yago.

A mu duma ku nginilila yendiso iyeyi, mo wo be muno shanagana ne bangwe be ngupo lenyu kuti ti lebesane ne kwe mazwiwo enyu ne kwe lambgwa le mesho ne ndapo yago. Mu Ndebeleko yedu to o be ti tola mahwi ne tji tola mahwi (audio tape recorder) kuti ndi tjenese kose kwa ma leba. Ndebeleko yedu eno tula metsutsu e nga bata awara. Too be taka batila shanganilo iyeyi ku Chamabona. Yendiso ye ku shanganila ndebeleko, a ito patika ntu kodwa mu ntu kuti aa ono shaka a u singa shake o ne leba kakale a u nga buzwiwe kuti ini wa tola mazwiwo e yao. Ku sa nginilila yendiso iyeyi a ku nga be ne mbatsha mu shingisano yenyu ne be bunganga.

Ndo mu zibisa kuti kose kwa mu no leba a ku too shingisiwa mazina enyu koo ziba imi ne bati noo be ti nabo mu shanganilo, ndo o kumbila bangwe ba no nginilila yendiso iyeyi kuti zose zwa tino leba zwi si budziwe batu basa ka nginilila shanganilo iyeyi. Ndo mu zibisa kuti a ndebeleko ya ka dwilila kusina tja mu nga leba ma nyala mu nga ndi budza. A kuna tja mu nga i khwa kakale a mu nga buzwiwe ku ti kwa tini.

A mu si nga shake ku dabila buzo munga nyalala. A mu shaka ku buzwa tjingwe nge kwe endiso iyeyi ka na mu sawa tjingwe nekwe shanganilo iyeyi mu nga ndi buzwa, kana mu nga ndi lidzila kana mu ka lidzila ntungamili wagu mu mhala u pezhugwi.

Ndaboka

Zina le nshakisi: Mme Keeleditse Ndlovu

Tjinyala.....

Zina le ntugamili we shakisiso: Mme Una Kyriacos

Tjinyala.....

NGINILILI:

MAZWIWO E BAKWEGU BA KA MATHANGWANE NGE KWE BUGWELE GWE LAMBGWA LE MESHU NE NDAPO YA GO.	
Zina le nyendisi we shakisiso	
Nthu u no buzwiwa wa ka fa nila kuti a zhadze pampiri iyeyi kana a be a dabila buzo dzose dzi mu pampiri iyeyi	Shala ma mazwiwo a wo
A ma bala pampiri ye ba nginilili kana mai baligwa?	Ee/Aa
Ma piwa tjibaka tje ku buzwa dzibuzo?	Ee/Aa
A ma shathisiwa nge dabilo dza ma piwa?	Ee/Aa
A ma hwisisisa kose nge kwe yendiso ye ku shakisisa yendiso iyeyi ne nge ndebeleko ye bu shanganilo?	Ee/Aa
A mo dumana ne kuti nshakisisi u nga linga dzikarata dzenyu dze bunganga?	Ee/Aa
A ma hwisisa kuti mu nga buda kana misa dzibuzo tjibaka tjingwe ne tjingwe mu si nga pe mazwiwo e kuti ini mu singa tja shake kakale a ku tooo thama tjingwe mu yendiso yenyu ne be bungaga	Ee/Aa
A mo dumana ne ku nginilila yendiso iyeyi ye bu shanganilo?	Ee/Aa
Zina le nginilili:	
Tjambiso ye tjinyala tje nginilili	Zuba
Tjinyala tje nshakisi	Zuba

APPENDIX F- Consent form (Focus group: Setswana)

KITSISO YA MOTSA YA KAROLO KA TSAMAISO YA PATLISISO (KOPANELO PUISANO)

YUNIVESITI YA CAPE TOWN- LEPHATA LA BOOKI

LEINA LA MOTSAMAI SA PATLISISO: Mme KEELEDITSE NDLOVU

LEINA LA MOETELEDIPELE: Mme UNA KYRIACOS

MEGALA YA MOTSAMAI SA PATLISISO: 0027768650731/ 0026771450729 (mogala wa dinoka)

MOGALA WA MOETELEDIPELE (027761422676) (mogala wa dinoka)

MAIKUTLO A BAGODI BA MOTSE WA MATHANGWANE KA GA BOLWETSE JWA LETHA LA MATLHO LE KALAFI YA JONE

Leina lame ke Keeleditse Ndlovu, ke moithuti ko madikolo wa Cape Town (South Africa). Ke ithutela boiki jwa matlho. Ke mo patlong maikutlo a bagolo ba motse wa Mathangwane ka fa ba tihaloganyang ka teng bolwetse jwa letha la matlho le kalafi ya jone.. Maikaelelo a patlisiso e, ke go utlwa maikutlo a bagolo mabapi bolwetse jwa letha la matlho le kalafi ya jone.

Fa o dumela go tselelela patlisiso e, go tlaa bo go solofelwa gore o ye go kopana le bangwe ba mophato wa gago gore le buisane ka ga maikutlo a lona ka bolwetse jo le kalafi ya jone. Puisano e, kana kopano e e tlaa bo e tshwaretse ko Chamabona Community Junior Secondary School. Puisano e e tlaa tsaya sebaka sa metsotso e le masome maratara go ya ko go masome a le boferabongwe. Puisano e, e tlaa bo e gatisiwa ka sekapamantswe gore ke kgone go tsaya ka tihamalalo tsotlhe tse re di buisanyeng. Ke go itsise gore, gotlhe mo re tla go buang go tla tsewa ele siphiri same le wena le botlhe ba ba tlaa bong ba tseletse puisano. Ke tlaa kopa gore botlhe ba ba leng mo puisanong e, ba seka ba bua sepe kaga tsere di buisanyeng le bangwe ba ba ko ntle ga puisano. Ga rena go dirisa maina a gago ka gope mo patlisisong e lefa go anamisiwa maduo a patlisiso e ga gona go itsewe ka gope tse o dibuileng, ka maina a tlaa bo a sa dirisiwe.

O itsisiwe gore go tselelela puisano e ya bo kopanelo ga go patelediwe, fa osa batle o ka bua, ga ona go botsa gore ke eng o tsere tshwetso eo, ebile fa o gana go tselelela puisano ya bokopanelo ga go na go mna diphatsa ka gope mo tirisanong ya gago le ba bongaka. O itsisiwe gore o nale thata ya gore ere go ntse go tseletsewe ka puisano, fa o sa tlhole o batla go araba kana go tselelela le puisano o ka bua, ga ona go bodiwa mabaka a tshwetso eo e tsereng le mororo o saenne tumalano ya go tselelela puisano.

Fa o nale sengwe se o batlang go se itse o ka botsa gore ke kgone go go tihaloetsa ka botlalo fa o sa tihaloganyeng teng ka tsamaiso le se o se solofelang fa o tselelela puisano. Fa go nale sengwe se o batlang go se botsa kana go se itse mabapi le patlisiso e, o ka leletsa mo megaleng e o e filweng fa godimo.

Maina a mmatlisisi: Mme Keeleditse Ndlovu

Monwana.....

Maina a moetelelepele patlisiso: Mme Una Kyriacos ...

Monwana.....

NOMORO YA MO TSAYA KAROLO:

SETLHOGO: MAIKUTLO A BAGODI BA MOTSE WA MATHANGWANE KA GA BOLWETSE JWA LETHA LA MATLHO LE KALAFI YA JONE.

Leina la motsamaisa patlisiso

Motho yoo botswang o tshwanelwa ke go bo a tladitse pampiri e kana a arabile dipotso tsotlhe tse di mo pampiring e.	A gelela karabo ya gago
---	-------------------------

A o badile pampiri ya batsenelela patlisiso kana o e baletswe?	Ee/Nyaa
--	---------

A o filwe sebaka sa go botsa dipotso?	Ee/Nyaa
---------------------------------------	---------

A o kgotsofaletse dikarabo tse o di filweng?	Ee/Nyaa
--	---------

A o tihalogantse ka fa patlisiso e e tsamaisiwang ka teng?	Ee/Nyaa
--	---------

A o dumelana le gore motsamaisa patlisiso o ka leba dikarata tsa gago tsa bongaka	Ee/Nyaa
---	---------

A o tihaloganya gore o letlelesega go tswa mo patlisisong kana puisano nako ngwe le ngwe e o batlang ka yone o safe mabaka a tshwetso ya gago ebile go dira jalo ga go na go amana gope le tirisano ya gago le ba bongaka?	Ee/Nyaa
--	---------

A o dumelana le go tsaya karolo/ tsenelela mo patlisisong e ya kopanelo puisano?	Ee/Nyaa
--	---------

Leina la motsayakarolo:

Monwana wa motsayakarolo	Letsatsi/ngwaga
--------------------------	-----------------

Monwana wa mo tsamaisa wa patlisiso	Letsatsi/ngwaga
-------------------------------------	-----------------

APPENDIX G- Interview guide: English

SEMI-STRUCTURED INTERVIEW / FOCUS GROUP DISCUSSION GUIDE

PERCEPTIONS OF ELDERLY PERSONS IN MATHANGWANE, BOTSWANA ABOUT CATARACTS AND CATARACT SERVICES

Introduction

- Greetings! My name is Keeleditse Ndlovu. I am from the University of Cape Town, South Africa.
- I thank you because you have agreed to take part in this discussion. I have invited you all to discuss cataracts which mostly affect the elderly person's eyes.
- I hope that the information I collect during the discussion will help me understand your opinion about cataracts and cataract services and how best to help those affected.
- I would like to assure that there is no right or wrong answers during this discussion. I therefore encourage you to express your own opinions.
- I also assure you that confidentiality of the data will be maintained for all that you tell me during this discussion. Therefore to protect your anonymity I do not need your names.
- I seek your permission to record the discussion on audio-tape. This tape following transcription will be kept in a secure and lockable place and will be destroyed post dissemination of the study findings. I do this to enable me to remember all that we talked about during the discussion.
- We shall now start the discussion. My first question is:
 1. Can you please describe what you understand by cataracts?
 2. Can you tell me what causes cataracts among all age groups, children, adults and the elderly?
 3. Please describe the local ways of treating cataracts
 4. What are the things an individual needs to do to prevent cataracts?

Thank you for answering my questions. I would now like to discuss **cataract services** in Botswana.

5. Tell me what you know about the cataract services
6. How easy is it to access this service?
7. What do you think could be the best way of getting information about cataract services to the community?
8. How do you think health professionals (nurses and doctors) would better assist you in managing your cataract?
9. Are there any other issues you would like to raise?

APPENDIX H- Interview guide: Kalanga

BUZO DZE NDEBELEKO

MAZWIWO E BAKWEGU BA KA MATHANGWANE NGE KWE BUGWELE GWE LAMBGWA LE MESHO NE NDAPO YA GO.

Dumilani! Ndimi Keeleditse Ndlovu ndo ngina e kwele ku CapeTown. Ndo zwi diila buogi gwe mesho. Ndo bokela tjobaka tja ma ndipa ku dabila buzo dzangu. Ndo tolela kuti bozo dzangu dzotjenesa lezibo gwenyu gwe lambgwa le mesho kuti mu nga batshiwa tjini. Ndo e mula ku tjela tjedza tjenyu kuti ndino shingisa mu zwidiyo zwangu. Ndo mu zibisa kuti tja ndino tjela mu muli tjo shingisiwa koga mu zwidiyo zwangu, mazina e nyu a nga shingisiwe kana tjenesiwe musa zibisiwa. Ndoshokoziba kuti a muna ndandala a ndinga to la hwi lenyu kuti ndili shingise.

Buzo dzedu yedzi:

1. A mo ziba lambgwa le mesho?
2. A mu bona bathu bana lambgwa le mesho ndebe ma kole api?
3. Mu tji tema mo lapa lambgwa le mesho tjini?
4. A mu bona goromente u nga thama tjini ku thusa ku tapudza bugwele gwe lambgwa le mesho?

Ndo bokela dabilo dzenyu!

5. A mo ziba ndapo ye lambgwa le mesho?
6. Mu bu kule gu nga pani ne ndapo?
7. Kunga thangwa tjini ko diya bathu ne mbatsha dze lambgwa le mesho?
8. Bu ngaga go thusa bathu tjini mu ndapo ye bugwele e gogu?
9. A muna ma zwiwo a mo no shaka le ba nekwe bugwele e gogu?

Nda boka!

APPENDIX I -- Interview guide: Setswana

DIPOTSO TSA DI PUISANO

SETLHOGO: MAIKUTLO A BAGODI BA MOTSE WA MATHANGWANE KA GA BOLWETSE JWA LETHA LA MATLHO LE KALAFI YA JONE.

Dumelang! Leina lame ke Keeleditse Ndlovu, ke ithutela boiki jwa matlho ko madikolo wa Cape Town (South Africa). Ke lebogela sebaka se le se mphileng go araba diputso tsame. Ke solofela gore diputso tsame di tlaa tlhwatswa maikutlo a lona ka ga bolwetse jwa letha la matlho le kalafi ya jone gore le kgone go ka thusiwa. Ke eletsa go tsaya lesedi kana maikutlo mo go lona gore keye go a dirisa mo dithutong tsame. Ke lo itsese gore se ke tlaa se botsang kana se re tlaa se buang se tlaa itsiwe ke nna fela, ka ke tlaa seke ke dirisi maina a lona go nyalanya se motho a se buileng. Ke lo itsise gore mo puisanong ya rona ke tlaa dirisa setsaya mantswe (audio tape recorder) gore ke kgone go itse tsotlhe tse re di buileng ka tlhamalalo.

Dipotso tsa rona di tlaa latelana jaana:

1. A o/ lo itse sengwe ka bolwetse jwa letha la matlho?
2. Fa o/lo bona bolwetse jwa letha la matlho bo ama batho ba digwaga dife?
3. Ka setso bolwetse jo lo bo alafa jang?
4. Ka temogo ya gago/lona, goromente o ka dira jang go thusa go fokotsa kanamo ya bolwetse jwa letha la matlho?

Ke a le boga!

5. A o/lo itse kalafi ya bolwetse jwa letha la matlho?
6. Lo bokgakala jo bo kae le ba bongaka jwa kalafi ya bolwetse jo?
7. Go ka dirwa jang go ruta batho ka bo diphatsa jwa bolwetse jwa letha la matlho?
8. Ba bongaka ba ka thusa batho jang ka bolwetsi jwa letha la matlho?
9. A lo nale sengwe kana kakgelo nngwe ka bolwetse jwa letha la matlho?

APPENDIX J- Letter to MOH (Botswana)

A letter to request for permission to conduct a study

University of Cape Town
Division of Nursing and Midwifery
Rondebosch
7701

Head of Health Research Unit
Ministry of Health
Private Bag 0038
Gaborone
BOTSWANA

Dear Sir/ Madam

RE: PERMISSION TO CONDUCT A STUDY:

PERCEPTIONS OF ELDERLY PERSONS IN MATHANGWANE, BOTSWANA ABOUT CATARACTS AND CATARACT SERVICES

I request your permission to conduct a study on the above mentioned topic in the village of Mathangwane. A copy of the letter for approval of the proposal from the University of Cape Town Research Ethics Committee (Ref 201/207) and a copy of the approved proposal are attached.

Data for this study are to be collected from male and female participants aged 65 years and older. The study to be conducted will be in partial fulfilment of the university requirements for the Master of Science in Nursing at the University of Cape Town.

Participants' rights will be observed. Informed consent will be obtained from the participants before conducting the study.

A summary of the study results will be sent to your office.

Thanking you in advance.

Yours faithfully

.....

Keeleditse Ndlovu

(Contact details: (+210768650731) mobile or (026771450729), e- mails

Phlkee001@mail.uct.ac.za or keeleditse2000@yahoo.com

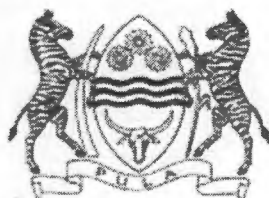
Supervisor's name: Mrs Una Kryiacos

Contact details: (027761422676) mobile or e-mail Una.kyriacos@uct.ac.za

APPENDIX K- Letter for approval MOH (Botswana)

A Letter for approval to conduct the study from Botswana

TELEPHONE: 3632000
FAX: 3914467
DEPT. OF PPM&E
HEALTH RESEARCH UNIT



MINISTRY OF HEALTH
PRIVATE BAG 0038
GABORONE
BOTSWANA

MINISTRY OF HEALTH

REFERENCE: PPM&E 13/18 US Vol I (38)

June 15, 2007

Keeleditse Ndlovu
Division of Nursing and Midwifery
University of Cape Town
Rondebosch
7701

Research Permit: Perceptions of Elderly Persons in Mathangwane, Botswana about cataract and cataract services.

Your application for a research permit for the above stated research protocol refers. We note that you have satisfactorily revised the protocol as per our suggestions. **Permission is therefore granted to conduct the above-mentioned study.** This approval is valid for a period of 1 year, effective June 15, 2007.

The permit does not however give you authority to collect data from the selected clinics without prior approval from the management of the clinics. Similarly, consent should be sought from all participants prior to data collection.

The research should be conducted as outlined in the approved proposal. Any changes to the approved proposal will need to be resubmitted to the Health Research Unit in the Ministry of Health.

Furthermore, you are requested to submit at least one hardcopy and an electronic copy of the report to the Health Research Unit, Ministry of Health within 3 months of completion of the study. Copies should also be sent to relevant authorities.

Approval is for academic fulfillment only.

Thank you,

Signed

S. El-Halabi

For Permanent Secretary, Ministry of Health



APPENDIX L- Letter for approval UCT

A letter for approval from the Ethics Committee- University of Cape Town

UNIVERSITY OF CAPE TOWN



Health Sciences Faculty
Research Ethics Committee
Room E52-24 Groote Schuur Hospital Old Main Building
Observatory 7925
Telephone [021] 406 6338 • Facsimile [021] 406 6411
e-mail: preaward@curie.uct.ac.za

7 May 2007

REC REF: 201/2007

Mrs Keeleditse Ndlovu
c/o Mrs Una Kyriacos
Division of Nursing and Midwifery
F45 Old Groote Schuur Hospital

Dear Mrs Ndlovu

PERCEPTIONS of ELDERLY PERSONS in MATHANGWANE, BOTSWANA about CATARACTS and CATARACT SERVICES

Thank you for submitting your study to the Research Ethics Committee for review.

It is a pleasure to inform you that the Ethics Committee has **formally approved** the above-mentioned study.

Please note that the ongoing ethical conduct of the study remains the responsibility of the principal investigator.

Please quote the REC. REF in all your correspondence.

Yours sincerely

Signed

A/PROF. M. BLOCKMAN
CHAIRPERSON, HSF HUMAN ETHICS

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APPENDIX M-Formating and highlighting

Formating amd highlighting of key questions and comments (MATF01)

<p>Interviewer: I will present my first question as thus: IN YOUR OWN OPINION HOW DO YOU PERCEIVE CATARACTS OR WHAT DO YOU UNDERSTAND BY CATARACTS? (Q.1)</p>
<p>Interviewee: cataract (spider web) in real is a disease which occludes this black part of the eye which makes us see and you will find that it makes this small black part of the eye to be occluded. (this one pointing at her eye to show by the pupil). If this is occluded you can no longer see, you find that if this is occluded when you look around you find the whole environment whitish. mmm. You can not even see, but now what they did when I got there they removed that dirty whitish thing which was on the small black part of the eye, then what remained was light or brightness, now I can see that there is a person or someone there. This whitish thing seals the eyes, and you will find that its whitish, yes it seals really, yes because even when I asked my children to view or look at my eyes they would say it's whitish around this blackish part of your eye</p>
<p>Interviewer: IN YOUR OWN VIEW WHAT CAUSES CATARACTS? WHICH AGE GROUPS ARE AFFECTED MOST CHILDREN, ADULTS AND ELDERLY? (Q.2)</p>
<p>Interviewee: Ah! We used to see this among elderly people, and it would be said that she is grown up and can no longer see. But we did not know how it started or what happened to her eyes. We would see her being guided around when walking.</p>
<p>Interviewer: Ok. Did you say it is common among the elders only?</p>
<p>Interviewee: Yes, you could see that this person can't see and when you look closely at her you could see that the person can not really see.</p>
<p>Interviewer: But in your own perception what do you think causes cataract?</p>
<p>Interviewee: Ah! You think I can know that my child, or it is caused by the food that we eat, I don't really know, things like tea which sometimes does not go along with the blood vessels for the eyes. Sometimes you can find that there are kinds/types of tea that you might find being allergic to. Like right now, I used to take five roses but I no longer take it, it just changed, now I am just taking rooiboss tea.</p>
<p>Interviewer: Ok, so you think it might be caused by the type of tea you are taking?</p>
<p>Interviewee: Yes, that's what I think</p>
<p>Interviewer: Ok, WOULD YOU KINDLY DESCRIBE THE LOCAL WAYS OF TREATING CATARACTS? (Q.3)</p>
<p>Interviewee:</p>
<p>Interviewer: What do you mean by eye problem/disease for children?</p>
<p>Interviewee: It means when bearing a child and that child does not suffer any eye problems. Then this eye problem comes or affects the mother. Don't you In setswana or locally ...Ah! Eyes sometimes become painful, in fact they are two types of eye problems, when it started I thought that it might be eye problems, but then I asked myself how can this recur when I am this old, when I have finished bearing children. I thought it was eye problems but I used not to have eye problems. I thought it was eye problems for children it has come, eye disease for children for the house (botsetsi) when I have been bearing children. But what could be this? I did not know. know that there is a problem where eyes become painful then it is said that it is eye problem due to breaking so that the baby can see, in this small children or infants this breaking happens so that the child can start to see how the world looks like. Sometimes the eyes becomes painful and painful, and may even swell and sometimes even bleed, and then that's when others cut like this or do blood letting (showing how it is done by the cheeks) They cut like this by the cheeks and then they take that blood and put as drops in to the infant's eyes. Yes they drop into the baby's eyes especially by the pupil then it heals. Yes.</p>
<p>Interviewer: So you were thinking it's children's eye problem in you?</p>
<p>Interviewee: Yes I was thinking it's children's eye problem</p>
<p>Interviewer: You were thinking that it was children's eye problem because all your children did not suffer this eye problem?</p>
<p>Interviewee: Yes, they did not have any eye problems so I thought is this eye problem now affecting me? That is what I was thinking. Yes.</p>
<p>Interviewer: But how do you thing cataract is being treated?</p>
<p>Interviewee: Oh! I sometimes see others putting traditional medicine, herbs as drops.</p>
<p>Interviewer: What kind of traditional medicine? As they are many types of traditional medicines/herbs</p>
<p>Interviewee: There are many many types of herbs. With me, when I started having eye problems here, I was taken to one traditional doctor in Dukwi (a village in the north of Mathangwane about 200km). That man was bringing greenish herbs and will crush them then put in water and I was given to keep on putting or dropping in my eyes, but I found, Oh! I found no improvement; it was just the same I realized that there was no</p>

<p>improvement I could not see. He failed, yes.</p>
<p>Interviewer: So what were you instructed to do after or when putting in the herbs?</p>
<p>Interviewee: before instillation, isn't there is one for inhalation, then after that that's when they take that watery one and put in my eyes.</p>
<p>Interviewer: How do you inhale do you do, steam inhalation or what?</p>
<p>Interviewee: It is put on charcoal and then I inhale</p>
<p>Interviewer: Ok! WHAT DO YOU THINK PEOPLE SHOULD DO TO PREVENT THEMSELVES FROM HAVING CATARACTS OR HAVE BLINDNESS DUE TO CATARACT? (Q.4)</p>
<p>Interviewee: That one I don't know because the government in most of the cases... I have seen many of us who are having eye problems, I have seen many of us going to the clinics and most of us are being given treatment/ medications of which in most cases are drops or is watery which we keep on putting in our eyes. I went to this clinic several times and was given eye drops and later I went to Nyangabwe. In Nyangabwe the doctor said "go and get medications" and I was given many boxes (showing four fingers) I was given four boxes. When I came back home I put on those drops, I continued putting on the drops, as the nurse communicated she said , I don't know what she really said in setswana" go and instill this medications so that this cataract can ripe" I didn't know what she meant whether she meant that when it's ripe and I can no longer see that's when I can come to be scratched(operated)</p>
<p>Interviewer: Who is the nurse who said so, or you were told where, here or at the hospital?</p>
<p>Interviewee: In Nyangabwe, they said you must instill these medications when this cataract is ripe then you must come back, we are giving you these medications so that you can go and instill and when it's ripe then that's when we will come and clean your eyes.</p>
<p>Interviewer: Ok! Then you came back home and instilled the medications?</p>
<p>Interviewee: Yes, then I came and continued instilling the drops, I instilled and instilled and then later I realized that it was becoming dark (I was losing sight completely). I could not see totally, totally, yes.</p>
<p>Interviewer: Therefore what do you think can be done to prevent blindness due to cataract?</p>
<p>Interviewee: I don't really know what can be done with modern treatment, I don't know what they do to prevent this problem because nowadays most of the people who are sick are suffering from eye problems only but I don't know why.</p>
<p>Interviewer: Am not referring to modern treatment only I want to know your perceptions about what we can do to prevent blindness due to cataract?</p>
<p>Interviewee: Oh! No I don't really know because I have never treated some body with eye problems. I have treated people with other general problems but not eyes.</p>
<p>Interviewer: Since you are having this problem what can you say to others or those other elderly people to inform them about this illness or on issues that they can do to prevent blindness due to this condition?</p>
<p>Interviewee: I sometimes say to my aunt the one who was standing there that day, hey! These teas you are drinking or taking are the ones which make you to say that you are not seeing well. They have just concentrated or dwelled on this tea from Zimbabwe which is known as Katiyo, this tea is very dangerous, it causes blindness, even tanganda tea most people used to take it but now they no longer use it or have stopped using it because it was making them to go blind. I tell them take tea which you have been taking all along here and leave or stop buying the one from Zimbabwe. Actually they are attracted by the amount and quantity because they buy 500g at P10.00 but this tea is very dangerous. It's very dangerous right now most of them are no longer taking it because they get sick after using it, you will hear them saying I no longer want Katiyo. You didn't hear my aunt that day saying "when I look at you I see you as being two". Even my mother she is also like that, and the other one staying over there (pointing at the direction of the house) whom I attended school with, (mentioning the name) he does not see totally and is a man.</p>
<p>Interviewer: So now you think that this eye problem might be due to this type of tea (Katiyo).</p>
<p>Interviewee: Yes, I once, after my children had prepared it, I asked them to make it for me also and I felt or the taste was not good at all especially with milk, it tasted like traditional medicine or herbs which are bitter this tea does not have a good taste but some people say it has a nice taste but with me it was very different and very bitter for me.</p>

APPENDIX N- Labelling of codes

Labelling of codes as derived from the text (MATF01)

<p>Interviewer: I will present my first question as thus: IN YOUR OWN OPINION HOW DO YOU PERCEIVE CATARACTS OR WHAT DO YOU UNDERSTAND BY CATARACTS? (Q.1)</p>	<p>Codes</p>
<p>Interviewee: Cataract (spider web) in real is a disease which occludes this black part of the eye which makes us see and you will find that it makes this small black part of the eye to be occluded. (this one pointing at her eye to show by the pupil). If this is occluded you can no longer see, you find that if this is occluded when you look around you find the whole environment whitish. mmmm. You can not even see, but now what they did when I got there they removed that dirty whitish thing which was on the small black part of the eye, then what remained was light or brightness, now I can see that there is a person or someone there. This whitish thing seals the eyes, and you will find that it is whitish, yes it seals really, yes because even when I asked my children to view or look at my eyes they would say it's whitish around this blackish part of your eye.</p>	<p>(Spider web) Occlusion of small black part of eye which makes people see Occlusion of small black part of the eye leads to loss of vision/ loss of vision due to occlusion of the small black part of the eye Removal of whitish dirty thing perceived as treatment Whitish thing seals the eye, sealing of the eye by the whitish thing</p>
<p>Interviewer: IN YOUR OWN VIEW WHAT CAUSES CATARACTS? WHICH AGE GROUPS ARE AFFECTED MOST CHILDREN, ADULTS AND ELDERLY? (Q.2)</p>	
<p>Interviewee: Ah! We used to see this among elderly people, and it would be said that she is grown up and can no longer see. But we did not know how it started or what happened to her eyes. We would see her being guided around when walking.</p>	<p>Cataract seen in elderly due to ageing but actual cause not known</p>
<p>Interviewer: Ok. Did you say it is common among the elders only?</p>	
<p>Interviewee: Yes, you could see that this person can't see and when you look closely at her you could see that the person can not really see.</p>	
<p>Interviewer: But in your own perception what do you think causes cataract? Interviewee: Ah! You think I can know that my child, or it is caused by the food that we eat, I don't really know, things like tea which sometimes does not go along with the blood vessels for the eyes. Sometimes you can find that there are kinds/types of tea that you might find being allergic to. Like right now, I used to take five roses but I no longer take it, it just changed, now I am just taking rooiboss tea.</p>	<p>Food associated with cataract especially tea(five roses)</p> <p>No longer take five roses</p>

Interviewer: Ok, so you think it might be caused by the type of tea you are taking?	
Interviewee: Yes, that's what I think	
Interviewer: Ok, WOULD YOU KINDLY DESCRIBE THE LOCAL WAYS OF TREATING CATARACTS? (Q.3)	
Interviewee:	Doubting having eye problems when passed the child bearing stage
	Child bearing associated with eye problems
Interviewer: What do you mean by eye problem/disease for children?	
Interviewee: It means when bearing a child and that child does not suffer any eye problems. Then this eye problem comes or affects the mother. Don't you In setswana or locally ...Ah! Eyes sometimes become painful, in fact they are two types of eye problems, when it started I thought that it might be eye problems, but then I asked myself how can this recur when I am this old, when I have finished bearing children. I thought it was eye problems but I used not to have eye problems. I thought it was eye problems for children it has come, eye disease for children for the house (botsetsi) when I have been bearing children. But what could be this? I did not know. know that there is a problem where eyes become painful then it is said that it is eye problem due to breaking so that the baby can see, in this small children or infants this breaking happens so that the child can start to see how the world looks like. Sometimes the eyes becomes painful and painful, and may even swell and sometimes even bleed, and then that's when others cut like this or do blood letting (showing how it is done by the cheeks) They cut like this by the cheeks and then they take that blood and put as drops in to the infant's eyes. Yes they drop into the baby's eyes especially by the pupil then it heals. Yes.	Blood letting done as form of treatment
Interviewer: So you were thinking it's children's eye problem in you?	
Interviewee: Yes I was thinking it's children's eye problem	Associated cataract with eye problems due to child bearing
Interviewer: You were thinking that it was children's eye problem because all your children did not suffer this eye problem?	
Interviewee: Yes, they did not have any eye problems so I thought is this eye problem now affecting me? That is what I was thinking. Yes.	
Interviewer: But how do you thing cataract is being treated?	
Interviewee: Oh! I sometimes see others putting traditional medicine herbs as drops.	Traditional herbs

<p>Interviewer: What kind of traditional medicine? As they are many types of traditional medicines/herbs</p>	
<p>Interviewee: There are many many types of herbs. With me, when I started having eye problems here, I was taken to one traditional doctor in Dukwi (a village in the north of Mathangwane about 200km). That man was bringing greenish herbs and will crush them then put in water and I was given to keep on putting or dropping in my eyes, but I found. Oh! I found no improvement, it was just the same I realized that there was no improvement I could not see. He failed, yes.</p>	<p>Use of different types of herbs Traditional healer preference</p> <p>No improvement with usage of herbs/failure of traditional healer</p>
<p>Interviewer: So what were you instructed to do after or when putting in the herbs?</p>	
<p>Interviewee: before instillation, isn't there is one for inhalation, then after that that's when they take that watery one and put in my eyes.</p>	
<p>Interviewer: How do you inhale do you do, steam inhalation or what?</p>	
<p>Interviewee: It is put on charcoal and then I inhale</p>	
<p>Interviewer: Ok! WHAT DO YOU THINK PEOPLE SHOULD DO TO PREVENT THEMSELVES FROM HAVING CATARACTS OR HAVE BLINDNESS DUE TO CATARACT? (Q.4)</p>	
<p>Interviewee: That one I don't know because the government in most of the cases... I have seen many of us who are having eye problems, I have seen many of us going to the clinics and most of us are being given treatment/ medications of which in most cases are drops or is watery which we keep on putting in our eyes. I went to this clinic several times and was given eye drops and later I went to Nyangabwe. In Nyangabwe the doctor said "go and get medications" and I was given many boxes (showing four fingers) I was given four boxes. When I came back home I put on those drops, I continued putting on the drops, as the nurse communicated she said, I don't know what she really said in setswana " go and instill this medications so that this cataract can ripe" I didn't know what she meant whether she meant that when it's ripe and I can no longer see that's when I can come to be scratched (operated)</p>	<p>Prevention of cataract not known</p> <p>Use of eye drops</p> <p>Eye drops accelerated the cataract to fully mature</p> <p>Cataract surgery perceived to be done when one is totally blind</p>
<p>Interviewer: Who is the nurse who said so, or you were told where, here or at the hospital?</p>	
<p>Interviewee: In Nyangabwe, they said you must instill these medications when this cataract is ripe then you must come back, we are giving you these medications so that you can go and instill and when it's ripe then</p>	<p>Ripening of cataract determines surgery</p>

<p>that's when we will come and clean your eyes.</p> <p>Interviewer: Ok! Then you came back home and instilled the medications?</p>	
<p>Interviewee: Yes, then I came and continued instilling the drops, I instilled and instilled</p>	
<p>and then later I realized that it was becoming dark (I was losing sight completely). I could not see totally, totally yes.</p>	Perceive drops to have an impact in losing vision totally
<p>Interviewer: Therefore what do you think can be done to prevent blindness due to cataract?</p>	
<p>Interviewee: I don't really know what can be done with modern treatment, I don't know what they do to prevent this problem because nowadays most of the people who are sick are suffering from eye problems only but I don't know why.</p>	Eye problems seen to be of concern among people but causes not known
<p>Interviewer: Am not referring to modern treatment only I want to know your perceptions about what we can do to prevent blindness due to cataract?</p>	
<p>Interviewee: Oh! No I don't really know because I have never treated some body with eye problems. I have treated people with other general problems but not eyes.</p> <p>Interviewer: Since you are having this problem what can you say to others or those other elderly people to inform them about this illness or on issues that they can do to prevent blindness due to this condition?</p>	
<p>Interviewee: I sometimes say to my aunt the one who was standing there that day, hey! These teas you are drinking or taking are the ones which make you to say that you are not seeing well. They have just concentrated or dwelled on this tea from Zimbabwe which is known as Katiyo, this tea is very dangerous, it causes blindness, even tanganda tea most people used to take it but now they no longer use it or have stopped using it because it was making them to go blind. I tell them take tea which you have been taking all along here and leave or stop buying the one from Zimbabwe. Actually they are attracted by the amount and quantity because they buy 500g at P10.00 but this tea is very dangerous. It's very dangerous right now most of them are no longer taking it because they get sick after using it, you will hear them saying I no longer want Katiyo. You didn't hear my aunt that day saying "when I look at you I see you as being two". Even my mother she is also like that, and the other one staying over there (pointing at the direction of the house) whom I attended school with, (mentioning the name) he does not see totally and is a man.</p>	Tea associated with cataract formation
<p>Interviewer: So now you think that this eye</p>	

problem might be due to this type of tea (Katiyo).	
Interviewee: Yes, I once, after my children had prepared it, I asked them to make it for me also and I felt or the taste was not good at all especially with milk, it tasted like traditional medicine or herbs which are bitter this tea does not have a good taste but some people say it has a nice taste but with me it was very different and very bitter for me.	

APPENDIX O-Codes into Categories

Codes sorted into categories (MATF01)

Interviewer: I will present my first question as thus: IN YOUR OWN OPINION HOW DO YOU PERCEIVE CATARACTS OR WHAT DO YOU UNDERSTAND BY CATARACTS? (Q.1)	Codes	categories
<p>Interviewee: Cataract (spider web) in real is a disease which occludes this black part of the eye which makes us see and you will find that it makes this small black part of the eye to be occluded. (this one pointing at her eye to show by the pupil). If this is occluded you can no longer see, you find that if this is occluded when you look around you find the whole environment whitish mmmm. You can not even see, but now what they did when I got there they removed that dirty whitish thing which was on the small black part of the eye, then what remained was light or brightness, now I can see that there is a person or someone there. This whitish thing seals the eyes, and you will find that its whitish, yes it seals really, yes because even when I asked my children to view or look at my eyes they would say it's whitish around this blackish part of your eye.</p>	<p>(Spider web) Occlusion of small black part of eye which makes people see Occlusion of small black part of the eye leads to loss of vision/ loss of vision due to occlusion of the small black part of the eye Removal of whitish dirty thing perceived as treatment Whitish thing seals the eye, sealing of the eye by the whitish thing</p>	<p>The spider web/ the blinding eye disease Removal of dirty white thing restores vision White thing seals the eye</p>
<p>Interviewer: IN YOUR OWN VIEW WHAT CAUSES CATARACTS? WHICH AGE GROUPS ARE AFFECTED MOST CHILDREN, ADULTS AND ELDERLY? (Q.2)</p>		
<p>Interviewee: Ah! We used to see this among elderly people, and it would be said that she is grown up and can no longer see. But we did not know how it started or what happened to her eyes. We would see her being guided around when walking.</p>	<p>Cataract seen in elderly due to ageing but actual cause not known</p>	<p>Ageing associated with cataract but actual cause unknown</p>
<p>Interviewer: Ok. Did you say it is common among the elders only?</p>		
<p>Interviewee: Yes, you could see that this person can't see and when you look closely at her you could see that the person can not really see.</p>		
<p>Interviewer: But in your own perception what do you think causes cataract? Interviewee: Ah! You think I can know that my child, or it is caused by the food that we eat, I don't really know, things like tea which sometimes does not go along with the blood vessels for the eyes. Sometimes you can find that there are kinds/types of tea that you might find being allergic to. Like right now, I used to take five roses but I no longer take it, it just changed, now I am just taking rooiboss tea.</p>	<p>Food associated with cataract especially tea(five roses) No longer take five roses</p>	<p>Food associated with cataract/ food causes cataract</p>
<p>Interviewer: Ok, so you think it might be caused by the type of tea you are taking? Interviewee: Yes, that's what I think</p>		
<p>Interviewer: Ok, WOULD YOU KINDLY DESCRIBE THE LOCAL WAYS OF TREATING CATARACTS? (Q.3)</p>		
<p>Interviewee:</p>	<p>Doubting having eye problems when passed the child bearing stage</p>	<p>When I first realized it / doubting to have eye problems</p>

	Child bearing associated with eye problems	Child bearing associated with eye problems
Interviewer: What do you mean by eye problem/disease for children?		
Interviewee: It means when bearing a child and that child does not suffer any eye problems. Then this eye problem comes or affects the mother. Don't you In setswana or locally ...Ah! Eyes sometimes become painful, in fact they are two types of eye problems, when it started I thought that it might be eye problems, but then I asked myself how can this recur when I am this old, when I have finished bearing children. I thought it was eye problems but I used not to have eye problems. I thought it was eye problems for children it has come, eye disease for children for the house (botsetsi) when I have been bearing children. But what could be this? I did not know. know that there is a problem where eyes become painful then it is said that it is eye problem due to breaking so that the baby can see, in this small children or infants this breaking happens so that the child can start to see how the world looks like. Sometimes the eyes becomes painful and painful, and may even swell and sometimes even bleed, and then that's when others cut like this or do blood letting (showing how it is done by the cheeks) They cut like this by the cheeks and then they take that blood and put as drops in to the infant's eyes. Yes they drop into the baby's eyes especially by the pupil then it heals. Yes.	Blood letting done as form of treatment	Cultural practices
Interviewer: So you were thinking it's children's eye problem in you?		
Interviewee: Yes I was thinking it's children's eye problem	Associated cataract with eye problems due to child bearing	Child bearing and cataract
Interviewer: You were thinking that it was children's eye problem because all your children did not suffer this eye problem?		
Interviewee: Yes, they did not have any eye problems so I thought is this eye problem now affecting me? That is what I was thinking. Yes.		
Interviewer: But how do you thing cataract is being treated?		
Interviewee: Oh! I sometimes see others putting traditional medicine/ herbs as drops.	Traditional herbs	Traditional herbs used as form of treatment
Interviewer: What kind of traditional medicine? As they are many types of traditional medicines/herbs		
Interviewee: There are many many types of herbs, With me, when I started having eye problems here, I was taken to one traditional doctor in Dukwi (a village in the north of Mathangwane about 200km). That man was bringing greenish herbs and will crush them then put in water and I was given to keep on putting or dropping in my eyes, but I found, Oh! I found no improvement, it was just the same I realized that there was no improvement I could not see. He failed, yes.	Use of different types of herbs Traditional healer preference No improvement with usage of herbs/failure of traditional healer	Different forms of herbs used to treat cataract Traditional healer preference No improvement with use if traditional herbs
Interviewer: So what were you instructed to do after or when putting in the herbs?		
Interviewee: before instillation, isn't there is one for inhalation, then after that that's when they take that watery one and put in my eyes.		

Interviewer: How do you inhale do you do, steam inhalation or what?		
Interviewee: It is put on charcoal and then I inhale		
Interviewer: Ok! WHAT DO YOU THINK PEOPLE SHOULD DO TO PREVENT THEMSELVES FROM HAVING CATARACTS OR HAVE BLINDNESS DUE TO CATARACT? (Q.4)		
Interviewee: That one I don't know because the government in most of the cases... I have seen many of us who are having eye problems, I have seen many of us going to the clinics and most of us are being given treatment/ medications of which in most cases are drops or is watery which we keep on putting in our eyes. I went to this clinic several times and was given eye drops and later I went to Nyangabwe. In Nyangabwe the doctor said "go and get medications" and I was given many boxes (showing four fingers) I was given four boxes. When I came back home I put on those drops, I continued putting on the drops, as the nurse communicated she said , I don't know what she really said in setswana" go and instill this medications so that this cataract can ripe" I didn't know what she meant whether she meant that when it's ripe and I can no longer see that's when I can come to be scratched(operated)	<p>Prevention of cataract not known</p> <p>Use of eye drops</p> <p>Eye drops accelerated the cataract to fully mature</p> <p>Cataract surgery perceived to be done when one is totally blind</p>	<p>Prevention of cataract not known</p> <p>Eye drops used to treat cataract</p> <p>Eye drops accelerates cataract formation</p> <p>Total blindness determines cataract surgery</p>
Interviewer: Who is the nurse who said so, or you were told where, here or at the hospital?		
Interviewee: In Nyangabwe, they said you must instill these medications when this cataract is ripe then you must come back, we are giving you these medications so that you can go and instill and when it's ripe then that's when we will come and clean your eyes	Ripening of cataract determines surgery	Stage of cataract determines surgery
Interviewer: Ok! Then you came back home and instilled the medications?		
Interviewee: Yes, then I came and continued instilling the drops, I instilled and instilled		
and then later I realized that it was becoming dark (I was losing sight completely). I could not see totally, totally yes.	Perceive drops to have an impact in losing vision totally	
Interviewer: Therefore what do you think can be done to prevent blindness due to cataract?		
Interviewee: I don't really know what can be done with modern treatment, I don't know what they do to prevent this problem because nowadays most of the people who are sick are suffering from eye problems only but I don't know why	Eye problems seen to be of concern among people but causes not known	Causes not known
Interviewer: Am not referring to modern treatment only I want to know your perceptions about what we can do to prevent blindness due to cataract?		
Interviewee: Oh! No I don't really know because I have never treated some body with eye problems. I have treated people with other general problems but not eyes.		
Interviewer: Since you are having this problem what can you say to others or those other elderly people to inform them about this illness or on issues that they can do to prevent blindness due to this condition?		
Interviewee: I sometimes say to my aunt the one who was standing there that day, hey! These teas you are drinking or taking are the ones which make you to say	Tea associated with cataract formation	food associated with cataract

<p>that you are not seeing well. They have just concentrated or dwelled on this tea from Zimbabwe which is known as Katiyo. this tea is very dangerous, it causes blindness, even tanganda tea most people used to take it but now they no longer use it or have stopped using it because it was making them to go blind. I tell them take tea which you have been taking all along here and leave or stop buying the one from Zimbabwe. Actually they are attracted by the amount and quantity because they buy 500g at P10.00 but this tea is very dangerous. It's very dangerous right now most of them are no longer taking it because they get sick after using it, you will hear them saying I no longer want Katiyo. You didn't hear my aunt that day saying "when I look at you I see you as being two". Even my mother she is also like that, and the other one staying over there (pointing at the direction of the house) whom I attended school with, (mentioning the name) he does not see totally and is a man.</p>		
<p>Interviewer: So now you think that this eye problem might be due to this type of tea (Katiyo).</p>		
<p>Interviewee: Yes, I once, after my children had prepared it, I asked them to make it for me also and I felt or the taste was not good at all especially with milk, it tasted like traditional medicine or herbs which are bitter this tea does not have a good taste but some people say it has a nice taste but with me it was very different and very bitter for me.</p>		

APPENDIX P- Creating themes

Creating themes

IN YOUR OWN OPINION HOW DO YOU PERCEIVE CATARACTS OR WHAT DO YOU UNDERSTAND BY CATARACTS? (Q.1)	Codes	categories	Themes
<p>Interviewee: Cataract(spider web) in real is a disease which occludes this black part of the eye which makes us see, and you will find that it makes this small black part of the eye to be occluded, (this one pointing at her eye to show by the pupil). If this is occluded you can no longer see, you find that if this is occluded when you look around you find the whole environment whitish. mmm! You can not even see, but now what they did when I got there they removed that dirty whitish thing which was on the small black part of the eye, then what remained was light or brightness, now I can see that there is a person or someone there. This whitish thing seals the eyes, and you will find that its whitish, yes it seals really, yes because even when I asked my children to view or look at my eyes they would say it's whitish around this blackish part of your eye.</p> <p>(MATFO1)</p> <p>(MATM02) Cataract (spider web) as we refer to it, we mean something that</p>	<p>Spider web Disease causing occlusion of small black part of eye which makes people see Occlusion leads to loss of vision Vision becomes blur ' environment becomes whitish' when eye is occluded Removal of whitish dirty thing perceived as treatment Whitish thing seals the eye Eye becomes whitish</p> <p>Spider web Something that occludes Makes eye not to see Occludes with a spider web Spider web occludes right at the centre of the eye Loss of vision</p> <p>Disease that brings blindness makes eyes to be totally blind makes one to lose vision and just stay</p>	<p>The spider web the blinding eye disease</p> <p>The white eye</p> <p>Spider web brings blindness</p> <p>Disease that brings blindness</p>	<p>'The Spider web'</p>

<p>occludes (pointing at his eyes towards pupil) where it makes the eyes to see or focus because it exactly occludes with that spider web like, that of a spider as it is the one that occludes making somebody to be unable to see, It's here right at the centre of the eye by this black part of the eye</p>	<p>in house vision becomes blur 'atmosphere whitish' eyes develop fur like thing feel like wiping it off, wipe it off the spider web, the fur like thing</p>	<p>Spider web the disease that brings blindness</p> <p>The white eye</p>	
<p>(MAT F03) Cataract is a disease which makes somebody to go blind; it makes the eyes to be totally blind, it makes someone not to see completely and then just stays in the house as s/he can not walk without vision. You just find the atmosphere whitish (flashing her hands around to show the change of atmosphere) you find that your eyes are like developing something like fur, like as if one can just wipe it off with something like this (showing with her hand how one can wipe the thing away), because it is on your body you feel like wiping it off, wiping it off, wiping it off like this. that is what we call spider web 'lidandi' (cataract) we then say it's a spider web (cataract) because those who know it then say it's a spider web (cataract) but for one who does not know will say there is something here just in the center of my eye , what could it be?</p>	<p>spider web disease making us blind disease treated by scratching to remove the web from the eye spider web makes the eye to be whitish on top of the small black part of the eye small black part of eye becomes whitish no longer black whitish thing obstruct this black part of the eye to see</p>	<p>The white eye</p> <p>Spider web the disease that brings blindness</p>	
<p>(MATF04) when we say a spider web</p>	<p>blurred vision</p> <p>atmosphere whitish as smoke double vision</p> <p>small black part of eye becomes whitish</p> <p>spider web disease that brings blindness something grows in the eye</p> <p>eye becomes whitish and became blind</p>	<p>The white eye</p> <p>Not known</p> <p>Spider web the blinding eye disease</p>	

<p>'Lidandi' cataract, we mean this disease which makes us to be blind. This is a disease where by when you have it, when you go to the hospital they scratch (operate) you. When they scratch (operate) they will be removing it that is the web from the eye: When an eye has a spider web (cataract) we see the eye being whitish, right on top of this small black part of it, we see it whitish, and you will see that this small black part of the eye is no longer black but whitish, you see this small black part of the eye (pointing at her pupil) you will see this white thing obstructing this black part of the eye to see.</p> <p>(MATM05) I could see that it was just blur, I could not see, I could not see... I could.... It was just blur. I mean when I looked around I found that the atmosphere was like covered with smoke, whitish, it was like smoke, I could not see what was happening. When I look at a person, sometimes I see him/her as being two, when I look at one person I see them as being two. Right on top here, right here on this small black part of the eye (pupil), it becomes whitish, it becomes whitish as if it has been applied ash on the eye. That is what damages the eye, it damages the eye this thing.</p>	<p>whitish thing right at the centre of the eye</p> <p>whitish eye colour change sign of approaching blindness</p> <p>don't know known by whites we just hear people saying</p> <p>spider web is blindness</p> <p>cataract associated with blindness</p> <p>white thing develops in the eye at center of the eye by the small black part of the eye small black part of the eye that makes us see</p> <p>white thing occludes the eye from seeing</p>		
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<p>(MATF06) This disease we call “lidandi” literally meaning spider web (cataract) is a disease which we perceive as one which brings about blindness in a person, but with me when it started, the first thing was that, my eye started by having something inside, yes something, that thing it started growing and covered the whole eye, then my eye went blind, then it became white and I went to seek medical advice. A very small white thing at the centre of the eye by this small black part of the eye, there was a small white thing right here at the centre of the eye by this black thing here. : We mean this blindness, because this disease is the one which brought about blindness. I really don’t know how I came explain it, because with us we just see the eye developing something whitish, when you see your eye becoming whitish, whitish then you start realize that now blindness is approaching</p> <p>(MATF07) I don’t know, I don’t know because this white people are the ones who know, they are the ones who know what it is, what kind of a thing it is, us we don’t know. We just hear people saying “lidandi”cataract, cataract but we don’t know what it is.</p> <p>Focus group (FG)</p>			
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This illness as you hear that it's a spider web "LIDANDI" (cataract) its blindness. We think that cataract is blindness. Because when you hear that you have cataract you will not be able to see. But there will be things which develop in the eyes, white things, a white thing, is very white, it develops in the eyes and makes the eyes to be whitish, that is what we refer to as a spider web" "LIDANDI" (cataract). This is what you as health workers will remove saying is a cataract. Therefore cataract is a disease which causes blindness. Tjilisana tja tendeka..." meaning a small boy has pointed, "Tjilisana..." a small boy... we mean that it has a "tjilisana" it has a small boy. It has a small boy it will have developed something whitish on this small black part of the eye. In this small black part of the eye, it will be having something whitish, in this small black part of the eye which is in the centre of the eye. In this small black part of the eye here in the centre of the eye, this black part of the eye which makes us to see. That is what is called "Tjilisana, tjilisana tja tendeka" "a small boy, a small boy has pointed" That is what is called "tjilisana" "a small boy" that is what occludes the eye from seeing, that is what we call "Lidandi" cataract.

IN YOUR OWN

VIEW WHAT CAUSES CATARACTS? WHICH AGE GROUPS ARE AFFECTED MOST CHILDREN, ADULTS AND ELDERLY			
<p>(MATF01) We used to see this among elderly people, and it would be said that she is grown up and can no longer see. But we did not know how it started or what happened to her eyes. We would see her being guided around when walking. It is caused by the food that we eat, I don't really know, things like tea which sometimes does not go along with the blood vessels for the eyes. Sometimes you can find that there are kinds/types of tea that you might find being allergic to. Like right now, I used to take five roses but I no longer take it, it just changed, now I am just taking rooiboss tea.</p> <p>(MATM02) The main main things nowadays we can not know what exactly causes it or it is because of eating these foods you are giving us of these years. These modern food as we now see them as the ones making our eyes to go blind starting with tea and other little things that we eat this modern food, Mostly we see them as the ones that cause eye problems to be common during this days. This is because in the olden days, when it</p>	<p>Seen among elderly persons Associated with ageing Cause not known Guided around/dependency Caused by food that we eat e.g tea</p> <p>Stopped taking tea</p> <p>Main cause not known Associated with modern food e.g. tea Olden days blindness was seen in elderly persons</p> <p>Heredity if not of that family then its types of food</p> <p>stopping to take tea improves health/vision</p> <p>Not sure Due to food that we eat But what cause it</p>	<p>Common among elderly/associated with ageing</p> <p>Unknown causes Associated with food</p> <p>Unknown causes</p> <p>Associated with modern food</p> <p>Associated with ageing</p> <p>Heredity</p> <p>Associated with modern food</p> <p>Actual cause not known</p> <p>A disease which just comes</p> <p>Unknown disease</p>	<p>Cataract a problem of the elderly caused by modern food</p>

<p>like fat or cooking oil</p> <p>MATF04) we don't know this disease we are seeing it now, during those olden days we used not to see a child as young as this (showing by hand roughly about three to five years) having eye problems, we see it now, during those days we used not to know it (emphasizing) since we grew up we never heard about it. mmm...we now see it we don't know what is happening to our eyes even to children very small children, you will find that it is said that its cataract I mean even this small(showing by hand the size of small children). When you go to the hospital you will find them, you will find plenty of them, this small, all having eye problems especially cataract and going for scratching (operation) also. We used not to know painful eyes, we used to know painful eyes being common among our mothers, those were the people who were having eye problems, it was found in elderly people, if it was found in children it would be healed own its own as it would start by discharging then sometimes we used to put traditional herbs then it got healed. Oh! now everything has changed, we don't know what is wrong with our eyes, or is just</p>	<p>oil and tea</p> <p>Cataract due to blood, blood in the brain Eye is a sensitive thing Blurred vision leads to dizziness because of insufficient blood supply I fell no blood came out Blood vessels were not working Affected the eye Disease caused by this thing spider, the thing which makes a web As we go around, it covers your eyes they you wipe it off, that is what damages the eye No pain Spider web is the one which causes this disease Like a smoke then it gets into the eyes Hits your face and gets into the eyes then it damages the eyes, works very fast as soon as it comes in contact with your face it damages the eyes A small child can have it</p>	<p>Not associated with pain</p> <p>Spider web causes cataract</p> <p>Children can have it</p> <p>Associated with hypertension</p> <p>heredity</p> <p>Unknown causes</p> <p>Can be fund in children nowadays</p>	
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<p>the problem with eyes or is a disease which has just come, but we are just thinking that it is a disease, but we do not know young children having eye problems and then you hear that they have lost sight or are blind have you ever had that children go blind at this age. Food that we eat, we don't know, but that is what we do think, we just think that is due to the food, food for the whites which we used not to eat when we grow up. May be is the ones which makes us to be sick, that is what we think, we think that may be is due to food, because we used not to eat a lot of things like this, examples cooking oil, etc, tea many types we used not to have them. e? We think it's a disease which has just come. We think of all the types of tea, we used to drink, eeh! We used to drink, what do you call that by the way? mmm... we used to take rooibos tea, is it the one really? Is it called rooibos tea, is it the oldest there is rooibos tea and what? Tanganda! Oh! No rooibos tea, yes that is the one we used to drink, that was the only tea we used to find healthy this ones called tanganda we used not to take it, but now we are no longer taking rooibos tea, we have long left it or we have been stopped from using it, then we found that they had introduced five roses and tanganda, but when I tried tanganda I</p>	<p>Cataract caused by high blood Long diagnosed high blood when it started and on treatment Observe certain families see how many people have eye operated Believe that this goes with heredity Grandmother, aunt, mother and I were operated</p> <p>My sons also have eye problems but are still young</p> <p>Do not know what causes it</p> <p>Children also lose vision within this modern life But cause not known Cause of blindness in children not known Blindness was seen among elderly persons Children at primary schools said to have visual problems, actual cause not known in children</p>	<p>Causes unknown</p> <p>Associated with ageing</p> <p>Due to malfunctioning of blood vessels</p> <p>Associated with food/ modern food</p> <p>Associated with ageing</p> <p>Associated with food</p>	
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<p>could not handle it so I decided to leave it, am just taking five roses only. The rest of the teas am not taking them, things like coffee I don't take it I just take five roses only that the one am taking now.</p> <p>MATM05) cataract is a...I would say is due to blood, mmm...it is too much blood in the brain then it makes somebody to be blind. the blood is the one causing this because the eye is a sensitive thing it doesn't want anything coming into it isn't? That is what makes the eyes to have blurred vision, when you have this blurred vision then you feel like you are having dizziness, because the blood will not be circulating well. I fell because there was no blood which came out, I tried to do what, I went for some x-rays but nothing abnormal was observed, but what I think is that this blood vessels were not working. Then after that it just continued like that is when at last it affected the eye this one the right eye. This disease is caused by this thing called spider, you see this thing which makes a web (trying to show with his hands how it appears), because as we go around, when you go, you will see it (the web) covering your eyes then you wipe it off like this. That is what damages the eye, because it makes...that is how I see it, that is what I</p>	<p>Common amongst old people of ages 60s and 70s, that's when it starts to occlude the eye</p> <p>In children develops but on rare occasions Due to blood vessels, blood vessels for the head Pulsating of blood vessels, beating and damaging the eye Food causes cataract Used not to eat many types of food like we do nowadays Used not to be sick Used not to have eye problems eyes painful due to lots of food we eat eye problems were seen on elderly persons our mothers and fathers died with their sight, they never lost sight age mates all are blind, both men and old women no one still have his/her sight food damages eyes , e.g tea especially five roses said to have caffeine therefore cause eye problems stopped taking five roses because was giving me problems</p>		
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have observed, there is nothing painful, I said if your blood is just ok, then this web for a ...spider, don't you ever see it there in the fields, there in the bush it makes a web, it makes a web then it flies on top as a flying machine, it will keep on moving up and down, spider web is the one which causes this disease. mmm... it's like smoke, just smoke then it gets into your eyes. When you just come and it hits your face it gets into your eyes, then it damages the eyes, it works very fast as soon as it touches your face it damages the eyes. !. Even a small child, a very small child can have it. A child as small as this showing the height can have cataract it can happen that you can find a child having cataract.

MATF06)

they say that cataract is caused by high blood, high blood causes cataract, because when it started with me I was long diagnosed high blood and on treatment, and am still taking tablets for high blood. But with my own observation, I have realized that because if you can just observe a certain family and see how many people have had their eyes operated, you can believe that this goes with heredity. Because my grandmother was done eye operation, by then these operations were done in Zimbabwe. She was

<p>operated in Zimbabwe and was given glasses, then my aunt also she was operated and used glasses, my mother was also operated and used glasses, Am now the forth person, but as I talk right now, I have my son who owns that house (pointing at it) he is a teacher at Matshekge Senior Secondary school, (door opening) that boy is also using glasses, he is very very young. The other one who is an Education Officer for secondary schools he is also using glasses like the mother there are about three of them who are using glasses. The one who is an Education officer for primary schools, he is very young too but also uses glasses, but he doesn't wear them much, he uses them only when at work on in the office that is why I think that blindness goes with heredity. It affects those who are old, but with my children the ones I listed they are still young, they had this disease at a very early age, the youngest one completed his Cambridge while using glasses and went to the University of Botswana while using glasses.</p> <p>MATF07) don't know, I don't know what causes it. I would be lying if I can say I know the cause.</p> <p>(Focus group) With this modern things... really it's just the same, because you will find that even a</p>			
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<p>small child, a very small child, you find him/ her having lost sight. But without knowing what could be the cause in that particular age in small children. We don't know what could be causing blindness in children. We used to see this among the elderly people only, but now it's common even among children, because even when a child is at primary school, you will hear that s/he is having vision problem, he can not see, you will find the child blind, and being said that is having a cataract. But we don't really know what causes it in children. In most cases is amongst us, old people, as you see us like this, when you get around 60s and 70s that's when it starts to occlude the eye. In children... it develops but on rare occasions, yes but it will be due to blood vessels, blood vessels for the head. The blood vessels will be the ones pulsating, beating and damaging the eyes. In children in most cases we don't know the causes Even in elders, may be is because we were not aware, with me, it started while I was still young, I mean this thing which is in my eyes, the one they say even today it has 'put up' . but it has not yet covered, yes, yes, with food as causes it's also true. Yes food, food they also do, because we used not to eat so many types of food like we</p>			
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<p>do nowadays and we used not to be sick, we used not to have eye problems. We used not to have problems with our eyes. But now we eat a lot of food, different types, that we used not to eat and we find that our eyes are now giving us problems, our eyes are painful. During the olden days we used to see eye problems on older people, yes our mothers and our fathers died with their vision they did not lose sight, they were not eating what we are eating nowadays. But nowadays there is no one with good vision. As you see us here, all our age mates, both men and their old women we are all blind. There is no one who is still having her/his sight. Yes it's true that some types of food damages our eyes. Things like tea, they say tea damages our eyes, especially five roses they say in English is...they say is caffeine Yes, they say is the one that makes us to have eye problems. I do agree, because when I started having eye problems I was taking tea too much, I used to take a lot of tea. I used to take tea a lot, and after that, when I had taken tea, when it was hot like it is today when I go out of the house when I try to walk out I will see whitish things moving around in my eyes as I walk. When I realized that five roses is giving me a problem, I then decided to stop taking it, am no longer taking</p>			
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<p>it, but when I stopped taking it I had already developed eye problems.</p>			
<p>WOULD YOU KINDLY DESCRIBE THE LOCAL WAYS OF TREATING CATARACTS?</p>			
<p>MATF01) Sometimes the eyes becomes painful and painful, and may even swell and sometimes even bleed, and then that's when others cut like this or do blood letting (showing how it is done by the cheeks) They cut like this by the cheeks and then they take that blood and put as drops in to the infant's eyes. Yes they drop into the baby's eyes especially by the pupil then it heals. Yes. I sometimes see others putting traditional medicine/ herbs as drops. There are many many types of herbs, With me, when I started having eye problems here, I was taken to one traditional doctor in Dukwi (a village in the north of Mathangwane about 200km). That man was bringing greenish herbs and will crush them then put in water and I was given to keep on putting or dropping in my eyes, but I found, Oh! I found no improvement; it was just the same I realized that there was no improvement I could not see, He failed, yes</p> <p>(MATM02) Locally, in kalanga,.. there are a lot of herbs to used but we sometimes find that its like there are the ones damaging the</p>	<p>Painful swollen and bleeding eyes Blood letting</p> <p>Done in infants</p> <p>Get cured</p> <p>Traditional herbs Many traditional herbs When it started Taken to traditional healer</p> <p>Brought greenish herbs Kept instilling the herbs Found no improvement He failed</p> <p>A lot of herbs There are the ones damaging the eyes Causing more problems Herbs inhaled and this destroys the eyes completely Herbs sometimes improve but not like modern medicine Smoke of herbs damages the eyes by increasing blood and therefore destroys eyes Herbs causes total loss of vision</p> <p>Cataract not known Hear if form health professionals We don't know</p>	<p>Painful bleeding eyes and blood letting was done in infants</p> <p>Use of many types traditional herbs</p> <p>Traditional healer preference</p> <p>No improvement with use of traditional herbs</p> <p>A lot of herbs used</p> <p>Herbs damages eyes further</p> <p>Modern medicine outweigh traditional medicine</p> <p>Herbs damages eyes</p> <p>Cataract not known therefore treatment not known</p> <p>Use of snail to clear off the cataract as it cleans the eyes</p>	<p>Curing cataract with traditional herbs [doubtful]</p>

<p>eyes completely or to have more problems again. There is one called motopi tree there are a lot of them, there are those herbs which are inhaled by being put in charcoal but you find that this type of treatment destroys the eyes completely. I mean the ones we use in setswana, because sometimes some may be get the roots and then inhale it and may start seeing a bit but it is not the same like the ones who receive modern treatment, mmm....They just take the herbs and inhale, so the smoke will go into your eyes isn't, and because of that we then find or think that sometimes this increases blood and destroys the eyes and makes one to lose vision completely. Mostly, I mean in kalanga, as me see or find it though yes they are trying to help with those herbs.</p>	<p>that there can be a spider web which can go into the eyes Use of eye drops Removal of whitish thing</p> <p>Use of snail in the olden days</p> <p>Use of its cover(shell) Put water and kept overnight Then next day take water and drop in the client's eye</p> <p>Ensure snail has no eggs because could hatch</p> <p>Use of snail because resembles an ear</p> <p>Leave water to settle in a snail shell</p> <p>Keep instilling until eyes clear off It cleans off Cleans off so that can see properly</p> <p>Instillation clears off the eyes later on improves vision</p> <p>Don't know how it is treated Used to instill herbs and it will clear off Now failing</p> <p>Modern medicine works well With painful eyes use of 'mophani' leaves</p> <p>Use herbs because</p>	<p>Use of traditional herbs but now failing</p> <p>Modern medicine outweigh traditional medicine</p>	
<p>(MATF04) In kalanga we do not know cataract, we just hear it from the health professionals, saying a cataract has covered the eye, and we and with us we don't know what it is, we did not know that there can be a spider web which can go into the eyes, then it start to be painful and tearing and then you keep on putting eye drops and then late on you go to the hospital and they remove this whitish thing(spider web / cataract).</p>	<p>Don't know how it is treated Used to instill herbs and it will clear off Now failing</p> <p>Modern medicine works well With painful eyes use of 'mophani' leaves</p> <p>Use herbs because</p>	<p>Treatments unknown</p> <p>Get cured with use of traditional herbs</p> <p>Used to work now failing works for those who are lucky</p>	

<p>MATM05) During the olden days they used to look for a snail, do you know it, this thing which we see usually when it rains, we usually find it during rainy seasons moving around, this ugly thing which moves. They used to take its cover (shell) when it has left then they put water on it, then they leave that water to stay over night on that shell then in the morning they take that water and drop it in the person's eyes. That is how it was used to treat eye problems this animal. That is what I used to see them doing. They used to make sure that it was not having eggs because otherwise if it had laid eggs when you pour water on it and leave that water over night it could hatch. They used a snail because if you look closely at the shell it looks like an ear so they believed that the eyes and ears work together so when one is having problems with this blood vessels above the ear, s/he will find that there is ear blockage and this affect the eyes like what happened with my son who is blind. They would put that water on the shell and when that water is clean or have settled, the following day they take out that water then you keep on instilling it in your eyes as eye drops. You don't have to put that water back again on the shell because it can lay eggs or hatch. You keep on putting that water on your eyes until it clears</p>	<p>would think they might be some sores inside Was used on red eyes and vision would improve</p> <p>Treatment not known</p> <p>They treat it We use traditional herbs so as to break it, then it clears off It used to get cured during the olden days Now doesn't work Even today it works for others , those who are lucky Instillation clears off Traditional herbs like Kalahari devil's claws</p> <p>That's the treatment for eyes</p> <p>Grind it, put in water and instill it</p>	<p>Kalahari devil's claws treatment of choice for eyes</p>	
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<p>off, you use that water until the eyes clears off. That is how I used to see them doing. it cleans, it cleans, it cleans off so that you can see properly, and it cleans the eyes so that they can not be blocked. When you keep on cleaning the eyes like this it then clears off and later on makes you to see.</p> <p>MATF06) mmm...I don't know, how it is treated, but in kalanga they used to instill some herbs and it will clear off but now it is failing, it doesn't work that way, even if you can put those herbs it doesn't work but with western medicine works well, they know it. they used to dig (<i>tjigala njiba</i>) literally meaning a tree where doves stays. It's a bush like tree, they used to dig it and then they keep on instilling it but others used to... when eyes were painful they would just gather 'mophani' leaves the green leaves then they grind those leaves and instill in the eyes because they used to think that sometimes they will be some sores inside the eye before it can clearly be seen from outside. Yes, they used to say; it will clear off because we used to see that when the eyes were reddish that reddishness clears off after using those herbs and you will find the person now able to see</p> <p>MATF07) Oh!, I would be lying (asking her mother who was</p>			
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<p>lying in front of the house, how do they treat a 'lidandi' cataract?, then the old lady replied with a very low weak voice and said, it was treated by those who knew it, they used to use some herbs, they used to put some herbs in the eye.</p> <p>Focus group) They treat it , it is treated..., we use traditional herbs, they instill traditional herbs for the eyes... . Yes, so that it can break it, then it clears off, during the olden days when they used this herbs it used to get healed and clears off but for now it doesn't.(the other commented). But even today it does work for others, those who are lucky, when they instill the herbs it does clears off. Herbs, real herbs, traditional herbs which are dug, the ones we dig underground, traditional herbs, yes, there is 'sengaparile or shola in kalanga', " the Kalahari devil claws" but we have two kinds of this, sengaparile, we have the one called sengaparile a thorn one which pricks, the biggest one and there is one , the small one with two thorns, this is the one which is being used, we use the leaves, grind the leaves , put in water then instill in eyes. That is the treatment for eyes, this is the one instilled, we use the small one, its leaves to instill in the eyes, the leaves are sticky like. You just grind the leaves, then you put in water then you squeeze that into</p>			
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<p>the eyes, it's like 'delele' traditional vegetable. There is the other one called 'tjivuna badza' literally meaning 'the one that breaks a hoe', this also treats eyes, when one's eyes can no longer see, when we find that the eyes have cataracts you grind it then put in water then you continue to wash your eyes with that water, you continue washing your eyes with that water then the cataract will disappear/clear off.</p>			
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