

**PERCEPTIONS AND ATTITUDES OF HEALTHCARE WORKERS TOWARDS
OPTOMETRY SERVICES IN ZEBEDIELA, LIMPOPO PROVINCE, SOUTH
AFRICA**

by

MAKGOBA, LERATO MOCHAEDI JOHN

MINI-DISSERTATION

Submitted in partial fulfillment of the requirements for the
degree of

MASTER OF PUBLIC HEALTH

in the

FACULTY OF HEALTH SCIENCES

School of Health Care Sciences

(Department of Public Health)

at the

UNIVERSITY OF LIMPOPO

SUPERVISOR: Dr SF MATLALA

CO-SUPERVISOR: PROF L SKAAL

2017

DECLARATION

I declare that **PERCEPTIONS AND ATTITUDES OF HEALTHCARE WORKERS TOWARDS OPTOMETRY SERVICES IN ZEBEDIELA, LIMPOPO PROVINCE, SOUTH AFRICA** hereby submitted to the University of Limpopo, for the degree of Master in Public Health has not previously been submitted by me for a degree at this or any other university; that it is my work in design and in execution, and that all material contained herein has been duly acknowledged.

.....
Makgoba LMJ (Mr)

.....
Date

DEDICATION

This dissertation is dedicated to my parents Mr Makgoka Joseph Makgoba and Mrs Masesi Sina Makgoba

ACKNOWLEDGEMENTS

I thank the Lord Almighty for granting me the strength and the wisdom to complete the course.

I would like to express my heartfelt gratitude and appreciation to all my lecturers especially my supervisors Dr SF Matlala and Prof L Skaal without whom there will be no dissertation to talk about.

Thanks to my wife Olympah and children Neo, Itumeleng, Onalerena and Omosa for the support and love

Thanks goes to my cousins, brothers, sisters, friends and all those who wished me well.

I also thank participants of this study, the staff of Zebediela Hospital for taking part in the study and hosting me.

ABSTRACT

Background: Since the introduction of optometry services in 1994 in Limpopo hospitals there is a need to improve the eye care services. Hospital records revealed that most of the spectacles worn by health professionals were not issued by the hospital optometry department. Those who were issued with spectacles when they were newly employed had not renewed from the hospital's optometry department after the recommended two years. The aim of this study was to determine perceptions and attitudes of public healthcare workers towards optometry services in Zebediela. Limpopo Province, South Africa

Methods: A quantitative descriptive cross-sectional study design was used. Participants were public healthcare professionals in Zebediela hospital and clinics in Zebediela sub-local municipality. Following the ethical approval and informed consent, a self-administered questionnaire with closed-ended questions was used to collect information on the perceptions, attitudes and socio-demographic factors. Data were analysed using IBM SPSS statistic 23 software.

Results: The majority of participants had negative perceptions (78.7%) and 76.4% had positive attitudes towards the optometry department. There was significant association between perception according to profession of participants ($P=0.025$). There was significant association between attitude according to profession ($P=0.001$), as well as years in institutional employment ($P=0.035$). There was no significant association between either perceptions or attitudes and age group, gender as well as employment experience ($p>0.05$).

Conclusion: The health professionals held negative perceptions but favourable attitudes towards the optometry staff and the optometry service but needed more information for themselves and the general patient. The health professionals were not impressed by the type of spectacles issued and optometry service delivery aspects. Awareness campaigns by optometrists, need to be increased to the public and also inter professional relationships need to be strengthened to reduce negative perceptions through peer cross professional education in the health system.

Keywords: Optometry, Perceptions, Attitudes, Health professionals

TABLE OF CONTENTS	Pages
DECLARATION	i
DEDICATION	ii
ACKNOWLEDGEMENTS	iii
ABSTRACT	iv
ABBREVIATIONS	xiii
DEFINITION OF CONTENTS	xiv

CHAPTER 1 INTRODUCTION AND BACKGROUND

1.1 INTRODUCTION	1
1.2 BACKGROUND OF THE STUDY	1
1.3 RESEARCH PROBLEM	2
1.4 LITERATURE REVIEW	3
1.5 PURPOSE OF THE STUDY	3
1.5.1 Study Aim	3
1.5.2 Study Objectives	3
1.6 RESEARCH QUESTION	4
1.7 OUTLINE OF CHAPTERS	4
1.7.1 Chapter 1: Introduction and background	4
1.7.2 Chapter 2: Literature review	4
1.7.3 Chapter 3: Study Methodology	4

1.7.4 Chapter 4: Results of the study	5
1.7.5 Chapter 5: Discussion, Recommendations and Conclusion	5
1.8 CONCLUSION	5

CHAPTER 2 LITERATURE REVIEW

2.1 INTRODUCTION	6
2.2 PERCEPTIONS TOWARDS HEALTH SERVICES	6
2.3 PERCEPTIONS TOWARDS EYE CARE SERVICES	8
2.4 UTILIZATION OF PUBLIC HEALTH SERVICES	9
2.5 UTILIZATION OF EYE CARE SERVICES	11
2.6 ATTITUDES TOWARDS HEALTH SERVICES	13
2.7 ATTITUDE TOWARDS EYE CARE SERVICE	14
2.8 CONCLUSION	15

CHAPTER 3 RESEARCH METHODOLOGY

3.1 INTRODUCTION	16
3.2 RESEARCH DESIGN	16
3.2.1 Study site	16
3.2.2 Study population	18
3.2.3 Sampling	18

3.2.4 Inclusion and Exclusion criteria	19
3.2.5 Data collection	20
3.2.6 Data analysis	20
3.3 RELIABILITY, VALIDITY AND OBJECTIVITY	20
3.3.1 Reliability	20
3.3.2 Validity	21
3.3.3 Objectivity	21
3.4 ETHICAL CONSIDERATIONS	21
3.4.1 Permission from appropriate authorities	21
3.4.2 Consent form	22
3.4.3 Confidentiality and privacy	22
3.5 CONCLUSION	23

CHAPTER 4 RESULTS OF THE STUDY

4.1 INTRODUCTION	24
4.2 SOCIO-DEMOGRAPHIC INFORMATION	25
4.3 OVERALL PERCEPTIONS TOWARDS OPTOMETRY SERVICES	32
4.4 OVERALL ATTITUDES TOWARDS OPTOMETRY SERVICES	34
4.5 PERCEPTIONS OF RESPONDENTS VERSUS SOCIO-DEMOGRAPHICS PROFILE OF RESPONDENTS	35

4.6	ATTITUDE OF RESPONDENTS VERSUS SOCIO-DEMOGRAPHICS PROFILE OF RESPONDENTS	36
4.7	CONCLUSION	37

CHAPTER 5 SUMMARY, RECOMMENDATIONS AND CONCLUSION

5.1	INTRODUCTION	38
5.2	DISCUSSION OF THE RESULTS	38
5.2.1	Objective 1: Socio-Demographic Profile of Respondents	38
5.2.1.1	<i>Age of respondents</i>	38
5.2.1.2	Gender of respondents	39
5.2.1.3	Professional category of respondents	39
5.2.2	Objective 2: To determine perceptions of healthcare workers towards hospital optometry services in Zebediela.	40
5.2.2.1	<i>Perceptions of healthcare workers towards hospital optometry services</i>	40
5.2.2.2	<i>Perceptions of healthcare workers towards hospital optometry services delivery</i>	41
5.2.2.3	<i>Perceptions of healthcare workers towards hospital optometry image</i>	42
5.2.2.4	<i>Perceptions of respondents versus Socio-demographics profile of respondents</i>	43
5.2.3	Objective 3: To determine attitudes of healthcare workers towards hospital optometry services in Zebediela.	45
5.2.3.1	<i>Attitudes of healthcare workers towards optometry services</i>	45
5.2.3.2	<i>Attitude of respondents versus Socio-demographics profile of respondents</i>	46

5.3	CONCLUSION	48
5.4	RECOMMENDATIONS	48
5.4.1	Education	48
5.4.2	Practice	49
5.4.3	Research	49
5.5	LIMITATIONS OF THE STUDY	49
6.	REFERENCES	50

APPENDICES

Appendix 1:	QUESTIONNAIRE	62
Appendix 2:	REQUEST LETTER TO COLLECT DATA	68
Appendix 3:	CONSENT FORM	69
Appendix 4:	CLEARANCE CERTIFICATE FROM TURFLOOP ETHICS COMMITTEE	69
Appendix 5:	PERMISSION LETTER FROM DEPARTMENT OF HEALTH, LIMPOPO PROVINCE	72
Appendix 6:	PERMISSION LETTER FROM ZEBEDIELA HOSPITAL	73
Appendix 7:	PERMISSION LETTER FROM PRIMARY HEALTH CARE, LEPELLE-NKUMPI SUB-DISTRICT	74
Appendix 8:	CERTIFICATE FROM LANGUAGE EDITOR	75

LIST OF TABLES

Table 3.1 Sample size stratified according to professional category.	19
Table 4.1: Profile of the respondents by education, gender and marital status.	26
Table 4.2: Profile of the respondents by profession.	26
Table 4.3: Respondents perceptions towards optometry service delivery	30
Table 4.4 Respondents' perceived image of optometry services	31
Table 4.5: Respondents' attitudes towards optometry service	33
Table 4.6 Perceptions versus Socio-Demographic profile of respondents	34
Table 4.7 Attitudes versus Socio-Demographic profile of respondents.	35

LIST OF FIGURES

Figure 3.1 Map of Capricorn district municipality in Limpopo province showing local municipalities	17
Figure 4.1: Distribution of respondents' ages	25
Figure 4.2: Profile of the respondents by work experience	27
Figure 4.3: Profile of the respondents by place of present employment	28
Figure 4.4: Profile of the respondents by years employed at present institution	28
Figure 4.5: Overall perceptions towards optometry services	32
Figure 4.6: Overall attitudes towards optometry services	34

ABBREVIATIONS

NHI:	National Health Insurance
PHC:	Primary Health Care
TREC:	Turfloop Research Ethics Committee
UL:	University of the Limpopo
WHO:	World Health Organization

DEFINITION OF CONCEPTS

Optometry services

Optometry services are comprehensive eye and vision care services provided by primary healthcare practitioners of the eye and visual system (De Souza, Cui, Looi, Paudel, Shinde, Kumar, Berwat, Wadhwa, Daniel, Flanagan, & Holden 2012). In this study optometry services refer to comprehensive eye health and vision care services provided by primary healthcare practitioners of the eye and visual system at Zebediela hospital.

Healthcare workers

Healthcare workers are people in employment in the private or government health departments whose job is to protect and improve the health of the community (WHO 2006). In this study healthcare worker refers to healthcare professionals working in Zebediela hospital and primary health care clinics owned by the department of health in Zebediela.

Attitude

Attitude is the way that a person behaves towards somebody or something that shows how a person thinks and feels (Oxford Advanced Learners Dictionary 2010). In the study attitude refers to the positive or negative behaviours of healthcare workers towards Zebediela hospital optometry services.

Perception

Perception is the way a person notices things, especially with the senses (Oxford Advanced Learners Dictionary 2010). In the study perception refers to positive or negative notice of the healthcare workers subjectively of the Zebediela hospital optometry services.

CHAPTER 1

INTRODUCTION AND BACKGROUND

1.1 INTRODUCTION

This study seeks to determine the perceptions and attitudes of healthcare workers towards hospital optometry services in Zebediela sub-local municipality. This chapter presents the general outline of the study, background information on the optometry services, the research problem, and the purpose of the study, research questions and significance of the study.

1.2 BACKGROUND OF THE STUDY

Optometry services have been introduced into the public hospitals in Limpopo province since 1991 (Sacharowitz, 2005). An estimated 300 registered optometrists are employed in the government hospitals from the total pool of 3697 registered optometrists in South Africa, according to the Health Professional Council of South Africa (HPCSA, 2016). Results from the surveys conducted by World Health Organisation in 2010 showed that, for outpatient hospital services including optometry services, more than half of the utilization was at public facilities in 27 out of 39 countries (WHO, 2013). In South Africa, over 80% of services were provided at public facilities. For in-patient services, public facilities are even more dominant and their share exceeded that of the private facilities in all countries, except Pakistan and India. In Brazil, Nepal, the Philippines and the Dominican Republic between 50% and 60% of hospitalizations were at public facilities (WHO, 2013). The study mentioned above points to the fact that many people in South Africa, like in other parts of the world, utilize government health facilities more than utilizing private health facilities. It therefore becomes a priority of governments to improve its services in health.

From Zebediela hospital optometry records, it is noticed that the users of the optometry service in the hospital are 80% old female persons between the ages of 60 and 80, mostly unemployed and on state grant. The percentage is in agreement with that of WHO which state that the prevalence of low vision and blindness in both the developing and developed countries increase with age and particularly among persons above the age of 60 (Baasanhu, Johnson, Burendei & Minassian ,1994).

Sixty percent of the blind in Africa are women and age-related blindness prevalence in women is 1.39 times higher than in men. Otutu, Nachega, Harvey and Meyer (2012) state that short sightedness and far sightedness is more prevalent in females than males. The patients that consult in the hospital are not former healthcare workers, even when the healthcare workers are retired they do not use the service provided for in hospitals. The researcher had noted that most of the healthcare workers who uses spectacles in hospital have utilized the services of a private optometrist.

A study by Aklilu, Ololo and Megersa (2012) emphasizes the importance and impact of employee's perception on turnover intent, by studying and analysing the perceptions and attitude the researcher is convinced that the optometry services in the hospital can be improved accordingly. In the same study by Aklilu et al. (2012), employee's perceptions is affected by attitudes, behaviour, job characteristics, together with the leadership and organizational structure. Hospital and clinic workers are very important part of the community as they work in the environment which improves the health status of patients. The healthcare workers are also part of the community in which they live in.

1.3 RESEARCH PROBLEM

As an optometrist working at Zebediela hospital for more than six years, the researcher has observed that some public healthcare workers at the hospital wear spectacles to improve their eye sight. The researcher has observed also that the majority of the spectacles worn by Zebediela healthcare workers are not issued by the hospital optometry department. Those who have consulted previously and were issued with

spectacles by the time they were newly employed have not renewed or are not renewing their spectacles from the hospital's optometry department as spectacles are recommended to be renewed after every two years, this is in line with eye care advice that a scheduled visit to an eye care facility should be once every two to three years according to guidelines by Robinson, Mairs, Glenny and Stolee (2012). It seems the perceptions and attitude of these healthcare workers influence their utilization of hospital optometric services.

1.4. LITERATURE REVIEW

Literature review in this study explicitly identified and evaluated the existing body of knowledge to determine what is known and not known about the perceptions and attitudes of healthcare workers towards hospital optometry services. This is discussed in details in chapter two of the study.

1.5 PURPOSE OF THE STUDY

1.5.1 Study Aim

The aim of the study was to determine the perceptions and attitudes of healthcare workers towards hospital optometry services in Zebediela.

1.5.2 Study Objectives

The research undertook to:

- Describe the socio-demographic factors of health workers in Zebediela
- Determine perceptions of healthcare workers towards hospital optometry services in Zebediela.
- Determine attitudes of healthcare workers towards hospital optometry services in Zebediela.

- Determine the association that existed between perception, attitude and demographic factors towards hospital optometry services amongst healthcare workers in Zebediela

1.6 RESEARCH QUESTION

What are the perceptions and attitudes of healthcare workers towards hospital optometry services in Zebediela?

1.7 OUTLINE OF CHAPTERS

1.7.1 Chapter 1: Introduction and background

This chapter forms the introduction and includes the background of the study. It states the status of optometry in South Africa's public hospitals and status quo in Zebediela hospital's optometry section. It also covered the research problem, purpose of the study and the research question.

1.7.2 Chapter 2: Literature review

This chapter focuses on literature review. It reviews related literature and reminds the reader of global utilization of health facilities and eye care facilities together with barriers of uptake. It also describes demographic factors, perceptions and attitudes associated with eye health.

1.7.3 Chapter 3: Study methodology

This chapter discusses the methodology in respect of the research design, sampling techniques, inclusion and exclusion criterion, data sources, data collection techniques, issues of reliability and validity. The chapter also deals with data management, including ethical consideration and pre-testing of the questionnaire. The significance of the study is also discussed.

1.7.4 Chapter 4: Results of the study

This chapter present the results of the study. It outlines and analyses the findings relative to the objectives and questions of the study. It uses descriptive and inferential statistical analyses and present results in tables, graphs and textual presentations.

1.7.5 Chapter 5: Discussion, Recommendations and Conclusion

This chapter presents a summary of the findings in relation to the research objective. The chapter discusses the findings presented in chapter four. The findings are discussed in relation to the research objectives and research questions. It also discusses the recommendations and conclusion of the research based on the findings and discussions. The discussions are linked with literature review and study findings. Finally, the limitations of the study are presented.

1.8 CONCLUSION

This chapter give an overview and serves as an introduction to the study to determine the perception and attitude of public healthcare workers towards public hospital optometry services in Zebediela, Limpopo province, South Africa. The next chapter deals in details about literature review of the study.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

The previous chapter presented a general introduction and background to the perception and attitude of public healthcare workers towards hospital optometry services in Zebediela hospital. In order to give context to the perception and attitude of public healthcare workers towards hospital optometry services in Zebediela hospital a literature review in this study was based on perceptions and attitudes towards public hospital services which included optometry services.

2.2 PERCEPTIONS TOWARDS HEALTH SERVICES

Perception is different to the real feature of the end product and is a factor among others that influences utilization of services in the private sector as opposed to service in government or free offered service. People tend to underestimate the service or product that is offered for free or less as opposed to expensive service or product (Gecti, 2014). Service adequacy is judged on perception of quality, organization of the service and availability (Bakeera, Wamala, Galea, State, Peterson & Pariyo, 2009).

According to Drevs, Tscheulin and Lindenmeier (2012) the leading feeling that builds perception in patients is trust, followed by other feelings like compassion of patient in care and feelings of intimacy and warmth towards the health services providers. Patients attending private facilities for service have more trust than those patients attending public hospital for medical services (Aaker, Vohs & Mogilner, 2010).

Another study in Klang Valley, Malaysia showed that perception of health workers was influenced by age, older employees have favourable perception towards organizational culture; higher job positions, education and income affect the perception of health workers

towards services in their organization (Anuar & Kadir, 2009). While the former might be true, the cost of health has been looked into as a factor or barrier for utilization of health and has been researched and concluded that the poor tend to utilize the public or government provided service while the elite prefer to use the private services which are more expensive than the former (Kawachi & Wamala, 2007).

Accessibility of health system to all the people who uses the service is influenced by structural barriers, like transport. Patients turn to utilize what is in their proximity. Income disparities take precedence over choice, as those who can afford do travel to their preferred service centres. Also Levels of education which influence perceptions generally hamper access in a population (Tuller, Bangsberg, Senkungu, Ware, Emenyonu & Werser, 2010). Patient perceptions of their symptoms affect their health seeking behaviour. Perceptions differ from person to person and place to place. Limpopo province is generally considered rural with a mix socio-demographic which must be considered in this research. Geographical location and socio-demographics factors are considered and have been studied in all researches pertaining to perceptions to health services according to Wong and Regan (2009).

Socio-cultural barriers including people characteristics encompassing ethnicity, age, race and gender as well as other socio-demographic characteristics are likely to influence usage of public health system (Wamala, Merlo, Bostrom & Hogsterdt, 2007). Frazier and Kleinstein (2009) agree with the former mentioned researchers, stating that a person's race, ethnicity, genetics factors, socio-cultural factors and barriers to health can affect the likelihood of having a disease and treating the disease. Poor knowledge about eye disease and the purpose of different elements of the eye examination were imminent in the study by Shickle and Griffin (2014), most but not all were happy with the services received. Participants indicated a preference in utilizing a local optometrist located in the regular or familiar health care services.

Direct selling of spectacles in private optometry practices leads to a perception that optometrists are interested only in selling spectacles, which can cause a lack of trust and fear of being pressurised to purchase expensive spectacles (Hayden, 2012; Awobem,

Cassels-Brown, Buchan & Hughes, 2009). According to Shickle and Griffin (2014) people feel very vulnerable about getting tested and looking foolish, as wearing spectacles is associated with looking old and appearing frail and many older patients did not trust the honesty of the optometrist, perceiving optometry service to be expensive, where costs can be difficult for individuals who need spectacles to control prices and spending. Patients have less trust in the large optometry chain facilities in relation to smaller independent optometrists (Hayden, 2012).

2.3 PERCEPTIONS TOWARDS EYE CARE SERVICES

Health care workers are everyday surrounded by individuals who are infected or affected with multitude of different conditions, diseases and infections in their everyday work activities. The appreciation of all these conditions may influence families, friends, their patients and their own ocular health seeking behaviour. Individual perceptions are very subjective, thus different people or even the same person at different time may hold different views on any matter (Slappendel, 1995). Onset of eye conditions and diseases are within the health care worker's aspect of work and can also affect the personal believe and physical behaviour of the individual. Sight plays an important role in all activities in hospitals and clinics activities, the sight of health care workers is obviously a major concern in the health society. A survey by Kool, Webber and McCool (2016) indicated that clinically the clinicians perceive eye diseases as their least significant concern when a patient is diagnosed with Diabetic mellitus. A clinician's belief influences the referral of a patient to a different level of care and thus will influence the clinician believe of self-care. Knowledge, attitude and practices studies are used mostly as an educational diagnosis tool to explore changes in knowledge attitude and practices of the community, paramedical personnel and medical practitioners on a matter of investigation (Kaliyaperumal, 2004).

Studies exist that survey the attitudes and perceptions of individuals towards optometry of any specific community other than random general public. Few studies that are found

are descriptive and resonate in the fact that education is needed to make aware the public about eye health care (Scott, Bressler, Ffolker, Wittenborn & Jorkasky, 2016). In a survey by National Eye Institute and Lions Club International Foundation (2007) done in 2005, individuals believed that vision is vital and rank sight high above all other human senses. Boadi-Kusi, Kumi-Kyereme, Awusabo-Asare, Ocansey and Kyei (2013) in Ghana revealed that negative perception of one's vision does not translate into proper use of eye care services.

2.4 UTILIZATION OF PUBLIC HEALTH SERVICES

Andersen's model of health care utilization classifies various factors of utilization into three categories: Predisposing factors, enabling factors and need factors. These factors work together to influence the individual's probability to utilize the health service. The predisposing factors are present before the onset of the condition and refer to an individual's tendencies to utilize the healthcare services irrespective of the need of healthcare service. Enabling factors are factors that are related to the surrounding circumstances that affect an individual's ability to utilize the healthcare service. And the need factor has to do with either the presence of ill-health or the perception of need e.g. the inability to read letters at the usual distance (onset of presbyopia). The need factor is considered to be important in situations where there is the presence of predisposing and enabling factors (Andersen, 1995).

The Minister of Health in South Africa Dr Motsoaledi has been in the news on the state and use of the government hospital. The minister and his family utilize the public hospital, including eye health services. The Minister acknowledges the bad reputation and the negative perception by the public on government hospitals, which he feels is sometimes totally unfair looking at the gains and credits over the years by the public healthcare sector (Mail and Guardian, 2013). According to McIntyre, Goudge, Harris, Nxumalo, and Nkosi (2009) negative perceptions held by people without recent direct experiences of hospitals are informed by friends, relatives and others by media. The South African government is

in the process of introducing an innovative healthcare financing system that will ensure that all the citizen of South Africa will have access to appropriate, efficient and quality health services. The National Health Insurance (NHI) is said to bring reform that will improve service provision in service delivery structures, administrative and management systems (South Africa Government Online. [s.a.]). Information is an essential component of the operation of any well-functioning and efficient market. Choice is enabled by information, allowing consumers of service to act as agents of competition by exerting pressure on service providers to compare themselves to rivals and improve their product and services on offer (Dash & Meredith, 2010). This competition concept is alive in the health sector, in between private health providers and between private service providers and the public health provider. The imperfect information conversely can lessen the competition between the competing entities and result in poor outcomes for the consumers in terms of price, quality and quantity. Because the government does not think of itself as a competitor in the health service but a provider of health service in a vacuum the services in government may continue to be compromised.

According to Lehohla (2011) majority of sick and injured people do not consult a health worker because they self-medicate, followed by those who felt that it was not necessary or the problem was not serious enough. Utilization of eye care services can be explained by three primary factors which are availability, accessibility and affordability (Ntsoane & Oduntan, 2010). The world Health Organization and its occupational health partners recommend that all workers should have access to occupational health services to meet their health needs (Rantanen, 1994). Health care professionals working in Limpopo hospitals have access to health workers when needing medical attention through their Occupational health and safety (OHS) clinics which serves employees of the same institution. The Department of health and any other employers is responsible for the insurance of workplace safety and health to protect the employees according to the Occupational health and safety act No 85 of 1993. The clinic program includes (OH Service, 2003):

(1) Promotion of wellness,

(2) Prevention of occupational injuries and diseases,

(3) A clinical Service

(4) Occupational Hygiene

(5) Consultation Services,

(6) Administration,

(7) Research,

(8) Special Programs and

(9) Employee Assistance program

The OHS clinic intergrade all the services all the services a health care worker may need including optometry services in Zebediela Hospital. Primary factors that influence utilization seem to have no effect in such a setting.

2.5 UTILIZATION OF EYE CARE SERVICES

Low levels of utilization of eye care services have been reported from cross-sectional studies in developing countries (Vela, Samson, Zunzunegui, Haddad, Aubin & Freeman, 2012; Lee, Ramke, Blignault & Casson, 2013).

Eye care service utilization is equally influenced by factors that affect utilization of health care services in general. These include available, accessible and affordable eye care services (Ntsoane and Oduntan, 2010). Olusanya, Ashaye, Owoaje, Baiyeroju & Ajayi. (2016) study revealed that a significant number of adults are not utilizing eye care services in the Middle East and that blindness is an important determinant of utilization of eye care services. In developing countries in Africa, like Nigeria, alternative medical systems are used in treatment of the eyes and when the treatment fail then conventional medical systems are used (Adaramaja & Baba, 2007). Traditional beliefs, practices, fatalistic attitude toward blindness, lack of faith in the intervention and fear about the surgical

procedures have all been reported as factors that affect behaviour that lead to the low levels of acceptance and utilization of eye care services (Vision 2020, 2008). Any delay in treatment of onset of eye condition may lead to further decline in vision or even blindness. Visual impairment and eye disease may be associated with increased morbidity, reduced quality of life as well as short life span or mortality (Zhang, Saaddine, Lee, Grabowski, Kanjilal, Duenas & Narayan, 2007). Burden of vision impairment is high in poor people and vision impairment is a cause of poverty “vicious cycle”, vision impairment and blindness is likely to impact social and economic opportunities for the affected individuals and may contribute in further decline into poverty for the individuals according to Jaggernath, Øverland, Ramson, Kovia, Chan and Naidoo (2014) and Gooding (2006). According to statistics, in South Africa 57% of the population live in poverty meaning they live with less than US\$2 a day (STATSSA, 2011).

Availability of eye care facilities do not guarantee usage by the community (Omolase, Adido, Fadamiro, Adepoju & Omolase, 2007). Underutilization and several care instructions may be ineffective or ignored in traditional and traditional societies where people ideas and behaviour patterns conflict with knowledge and believes.

Study by Harris and Sampson (2005) found that access and incidence differences do not explain the difference in rate of utilization of optometric services between genders, and concluded that the reason may lie in the attitudinal differences between men and women health seeking behaviour. Meaning that, there is no reason that women should be seeking more eye care services than men. Many people in rural areas do not have access to eye care services. Marmamula, Keeffe, Ramana and Rao (2011) and Lavier, Burhan, Omar, Jecha and Gilbert (2011) have cited cost as a significant barrier to eye health services which include none medical costs. Factors such as lack of funds for transport to eye care facilities may result in poor access to eye care services (Dhaliwal & Gupta, 2007). Limpopo is considered poor and rural and most of the patients rely on public transportation to the Hospital. The elimination or reduction of cost as a barrier does not guarantee the utilization of eye services. In a study by Snelling, Shrestha, Gharti,

Shrestha, Upadhyay and Pokhrel (1998) patients were offered transport and free needed surgery but the results were less than favourable.

Appiah-Gyimah, Agyapong and Boohene (2011), has highlighted that other than customer satisfaction though important, other factors such as trust, customer relationships, corporate image of the service provider, service quality and communication need to be taken into consideration. Wang, Wu, Lin and Wang (2011), state that there is a positive relationship between service quality, perceived value and customer loyalty.

2.6 ATTITUDES TOWARDS HEALTH SERVICES

Starfield (2007) has reviewed utilization of health services in general, mainly by the general public or communities, the psychosocial factors and health beliefs elsewhere internationally, including South Africa. In general, the factors are many, varied and often overlap. In Australia a study by Luzzi and Spencer (2008), looked into factors influencing the use of public dental services where attitude, subjective norms, self-efficacy and perceived control were significant predictors of intentions to use public health services and concluded that public dental service utilization appeared to be hindered by perceived barriers to dental care.

Confidence in the health system and the giver of the services seem to dominate the perception of users of service. Trust issues in the health worker's place of study and qualifications also influence perception either positively or negatively. When a patient is confident about the health service provided their trust is elevated and the patient is influenced to use the service. The perceived and history of the institutions and professional is another factor among others that lead to choice of service and return for service (Bakeera et al, 2009; Mohseni & Llinstrom, 2007).

Infrastructure is an indirect measure of excellence of care and dictates perception than attitude. Infrastructure includes the tangible features of a service delivery, which is related to equipment, furniture, physical appearance of the hospital, facilities, availability of resources, and environment (Noor & Bahari, 2013). From day to day interactions with

patients the researcher had noted that patients are impressed by availability of equipment in the consultation room, which may or may not be used on them.

Van Vuuren, Roberts-Lombard and van Tonder (2012) have researched on loyalty of patients to optometry practices and have found that customer satisfaction had the highest correlation with customer loyalty. Trust, supplier image and commitment also appear to significantly influence customer loyalty within an optometric service environment. Trust in patient-provider relationship is important in many interactions in health-care, individual's trust in service provider may affect the health care seeking behaviour (Ozawa & Walker, 2011). Individuals portray good attitude towards a service by repeating the service from the service provider they trust.

Shickle and Griffin (2014) in their study found that, the majority of the participants who were over the age of 60, had regular eye examination and wore spectacles. In South Africa persons over the age of 65 are considered pensioners and qualify for free services and spectacles in optometry in the public service while in the United States of America where the study was conducted persons over 65 are eligible for NHI funding. For these older patients, other factors rather than monetary influence, manipulate their attitude towards health service including optometry. Older persons turn to use the public health services more than other age groups. Finger, Ali, Earnest and Nirmalan (2007) has shown that barriers to uptake services tend to change over time due to several factors.

2.7 ATTITUDE TOWARDS EYE CARE SERVICES

Marmamula, Khanna, Sherkhar and Rao (2014) and Kovia, Krishnaiah, Shamanna, Thomas and Rao (2011) have studied barriers to take up eye care services and concluded that barriers tend to be more towards personal related phenomenon such as personal attitude and felt need, this is despite noticing decreased vision by the respondents. Behavioural factors influence the utilization of eye care services and play important role in prevention of blindness (Ekpenyong & Ikpeme, 2009).

Studies by Li, Lam, Lu, Ye, Lam, Gao, Sharma, Zhang, Griffiths and Congdon (2010) and Chawla and Rover (2010) had reported negative attitudes towards the use of prescribed spectacles by children influenced by their parents' views and believes. In countries like Nigeria it is believed that young people do not have eye problems and as such should not wear prescribed spectacles. Attitudes rub-off in children, if no eye health education interventions are devised and implemented in such community the same behaviour will be extended endlessly from generation to generation. Other ill-informed beliefs are that spectacles damage and weakens the eyes and should only be worn when it is absolutely necessary or else in special occasions (Savur, 2011). It is acknowledged that behaviour in life is a product of social or cultural condition. The behaviour of an individual exhibits also part of the individual's own coping mechanisms which will affect the use, delay in use and none use of the healthcare system (Ekpenyong & Ikpeme, 2009).

2.8 CONCLUSION

This chapter highlighted aspects that different researchers have gathered while trying to understand attitudes and perceptions of individuals towards different health services including optometry. The next chapter describes how the researcher used all the information gathered scientifically as a method to undergo the process of the research.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

The previous chapter outlined in detail the literature reviewed for the research. This research methodology chapter describes the measurements of the variables in the research, the sampling design, data collection procedures and methods of data analysis including ethical issues.

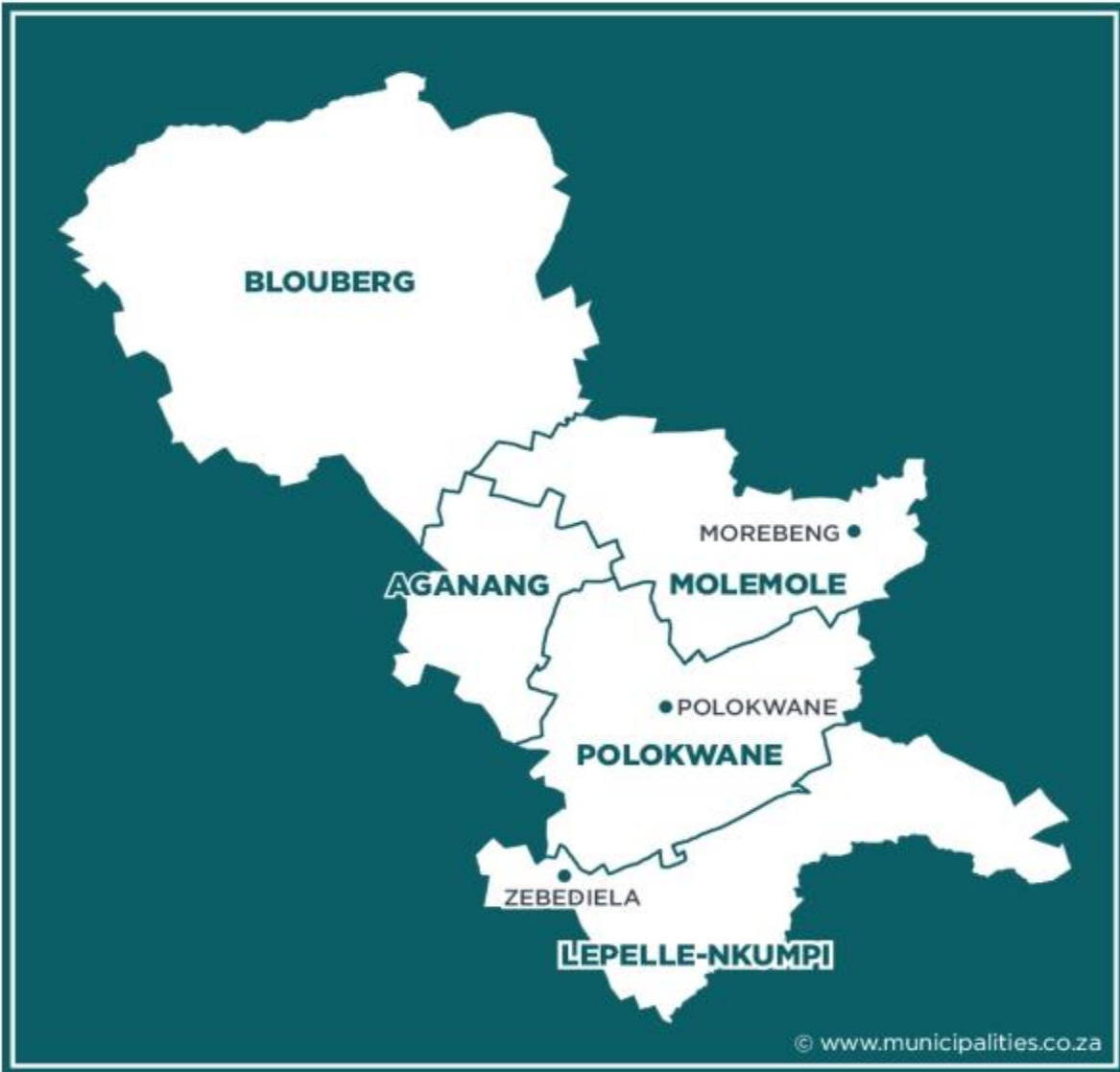
3.2 RESEARCH DESIGN

The type of study used is descriptive cross-sectional survey of healthcare workers using structured self-administered questionnaire in a quantitative research approach. The design was chosen for its relatively short time to obtain snapshot useful information. A quantitative method is a method that generates numerical data (Curry, Nembhard & Bradley, 2009)

3.2.1 Study Site

The study was conducted at Zebediela sub-local municipality in the western side of the Lepelle-Nkumpi Local municipality, consisting of 13 rural villages. The area falls under the jurisdiction of traditional authority, with every village with a chief, under the kingship of King Sello Kekana III. The nearest towns around Zebediela are Mokopane which is situated 73km on the west, Polokwane situated 83Km on the north-east and Marble Hall located 65km on the south. The health of the sub-municipality is serviced by the Zebediela hospital and its associated seven Primary Health Care (PHC) clinics. The hospital is a level one district health facility with 108 beds in Capricorn district of Limpopo province under Lepelle-Nkumpi Local municipality. A map of Capricorn District Municipality showing local municipalities is attached as Figure 3.1. In Zebediela, Mogoto

clinic is situated 28km from the hospital. Slypstyeeen clinic is only 4km away from the hospital. Zebediela gateway clinic is located at the hospital's gate. Smuggles union clinic is situated 10km from the hospital while Moletlane clinic is situated 20km from the hospital. Zebediela estate clinic is located 31km from the hospital while and Byldrift clinic is located 24km from the hospital.



Source: <http://www.localgovernment.co.za/districts/view/26/Capricorn-District-Municipality#map>

Figure 3.1 Map of Capricorn district municipality in Limpopo province showing local municipalities.

3.2.2 Study population

The targeted population were healthcare professionals working in the hospital and clinics. The human resource information from Capricorn district health department for 2014/2015 for the hospital and clinics professionals stands at 124 employees. The healthcare workers include 11 medical doctors, 79 professional nurses of which 64 are employed in the hospital and 15 are employed in the PHC clinics. Three dentists, one dental therapist and 30 allied staff which include five radiographers, three physiotherapists, six dieticians, three occupational therapists, one speech therapist, nine pharmacists, two clinical psychologists and one registered counsellor.

3.2.3 Sampling

The researcher used stratified random sampling method for the purpose of this research. The sampling method was performed in two stages.

1st Stage

Determining sample size

Out of the 124 healthcare professionals a sample size was determined using Slovin formula where n is sample size, N is the population and E represents error of estimation (Taylor-Powell, 1998). The confidence level of 95% and margin of error is considered to be 0.05 when calculating the sample size.

Calculated as:

$$\begin{aligned}n &= \frac{N}{1+N(E)^2} \\ &= \frac{124}{1+(124)(0.05)^2} \\ &= 124/1.31 \\ &= 94.657 = 95 \text{ (Sample size)}\end{aligned}$$

Table 3.1 Sample size stratified according to professional category.

	Nursing staff	Medical staff	Allied health staff	Dental staff	Total
Total number staff	79	11	30	04	124
% of total group	64%	9%	24%	3%	100%
Sample size	61	8	23	3	95

Table 3.1 above shows the sample size of participants stratified according to professional categories. The total number of the population was 124, which is constituted 79 nursing staff, 11 medical staff, four dental staff and 30 allied health staff which include the pharmacy personnel and psychology staff for computation reasons.

2nd Stage

Random selection

The human resource PERSAL (Personnel salary administration system) printout of the institution was used as the sampling frame. A list of all health professionals was requested from the hospital and PHC district human resource sections, the inclusion and exclusion criteria as mentioned below was used

A hat method was used. From the PERSAL printout each professional category was selected. All the individual names on the PERSAL printout per category were cut into a strip piece of paper, folded and put in a hat, shaking the pieces to mix and randomly picked out the pieces of paper at a time, until the desired number was reached. The process was repeated for each category.

3.2.4 Inclusion and Exclusion criteria

The study included all public healthcare professionals in Zebediela Hospital and associated PHC clinics that have a health qualification of three years or more. All optometrists were excluded.

3.2.5 Data Collection

Structured self-administered questionnaires were used by the researcher to collect data from healthcare workers in Zebediela hospital and associated PHC clinics. The questions were developed with section A comprising of questions regarding demographic data, section B comprising of questions about the perception and section C comprising of questions about attitudes of the individual toward hospital optometry services (see the attached Appendix 1: Questionnaire). The questionnaire was developed after review of studies related to attitudes and perception on services (Shickle & Griffin, 2014; Cinaroglu, 2014; Dreves et al., 2012; Petrick, 2009; Anuar & Kadir, 2009; Bakeera et al., 2009; Luzzi & Spencer, 2008).

Perception and attitude were measured using Likert scale technique which present a set of perception and attitude statements, the participants were asked to express agreement or disagreement on three-point scale. The total value was calculated from all the responses in each section.

3.2.6 Data Analysis

Quantitative analysis involves using statistics to prove numerical data. The data from the research was analysed using IBM SPSS statistic 23 software. Descriptive statistics was used by the researcher describing data by central tendency, variability and distribution. Inferential statistics was used to generalize from the sample to the population and compare groups using chi-square test. Correlation statistics was used to measure relationships between variables such as age, education, gender, marital status and employment status using correlation coefficient.

3.3 RELIABILITY, VALIDITY AND OBJECTIVITY

3.3.1 Reliability

Reliability is concerned with consistency of the theory with the data or how dependable the theory is as related to the data. Reliability was confirmed through the piloting of the study, which proved the consistency and dependability of the questionnaire.

3.3.2 Validity

Validity or reality was determined-by using a pilot study. The pilot study was conducted to assess the content validity, appropriateness and question comprehensibility at the Lebowakgomo hospital and the results did not form part of the main study. The pilot study was to aid in revising the Questionnaire. The following are revised changes to the Questionnaire:

1. Question 6, which was previously presented as “How many years have you been at your current profession in your current institution?” was broken into two questions “How many years have you been at your current profession?” to capture number of years of the respondent current professional status and “How many years have you been employed at your present institution?” to capture number of years of the professional at the current institution.
2. In the consent form: Zabediela was changed to Zebediela in the introduction of the Questionnaire, as was noted by the researcher on presentation to the respondents.

3.3.3 Objectivity

Objectivity was the regulative ideal that guided all inquiry directed at how the researcher carried out the research. The researcher was precise, unbiased, open, honest, receptive of criticism and impartial during the whole time undertaking of the research.

3.4 ETHICAL CONSIDERATIONS

3.4.1 Permission from appropriate authorities

Before the commencement of the study, the researcher submitted a research proposal for approval to the Senior Degrees Committee at the University of Limpopo, subsequent to that it was submitted to the Turfloop Research Ethics Committee (TREC) for ethical clearance (See attached Appendix 5).

The ethically approved research proposal was submitted to Limpopo province Department of Health for approval to collect data, which the department duly granted the permission to conduct the study (see attached Appendix 4), Request letter to collect data (Appendix 2)

Limpopo Department of Health (Zebediela hospital) permitted the researcher to collect data (Appendix 6: approval) and Limpopo Department of Health (Lepelle-Nkumpi primary health care) also permitted the collection of data (see attached Appendix 7: approval)

3.4.2 Consent form

Participants who agree to take part in the research were asked to sign a consent form (see attached Appendix 3: Consent form). Participants were informed about the aims and purpose of the study, that their participation was voluntary and have the right to abstain from participation at any time.

3.4.3 Confidentiality and privacy

The questionnaire is filled in privately by individual participants without consultation with others. Information collected from the participants is regarded as confidential source of information. The names of the participants are not used anywhere in the write-up or presentation of the study. The names of the participants will not be revealed to anyone without written consent from the participants. The research questionnaire and consent form are kept separate after collection to avoid identification of the participant. The documents are kept in a safe place until time of shredding.

3.5 CONCLUSION

This chapter discussed methods used in the measurements of the variables in the research, study site, population, the sampling design, data collection procedures including ethical issues. The next chapter will present the results of the study.

CHAPTER 4

RESULTS OF THE STUDY

4.1 INTRODUCTION

The previous chapter discussed the study methodology used in the research to obtain answers to the research questions. It also described the target population and area, the methods on how data was collected, how and where the pilot study was conducted.

This chapter presents the results of the study focusing on the demographic information, and opinions of the respondents on analysis of the attitudes and perceptions of optometry services in Zebediela.

As previously stated in the chapter one, data were analysed using the frequency procedures in the Statistical Packages for Social Sciences (SPSS) Version 23. This procedure treated data as categorical count data to obtain simple frequencies of occurrences as well as simple proportions. In addition, chi-Square tests of Independence were computed to test for association between sets of demographic variables and opinion related questions.

A total of 89 (N=89) completed questionnaires were received back from participants. This represented 94% response rate. The results will be presented in terms of demographic information, followed by tabulation of respondent's opinions as well graphs of overall attitudes and perceptions towards optometry services in Zebediela Hospital.

4.2 SOCIO-DEMOGRAPHIC INFORMATION

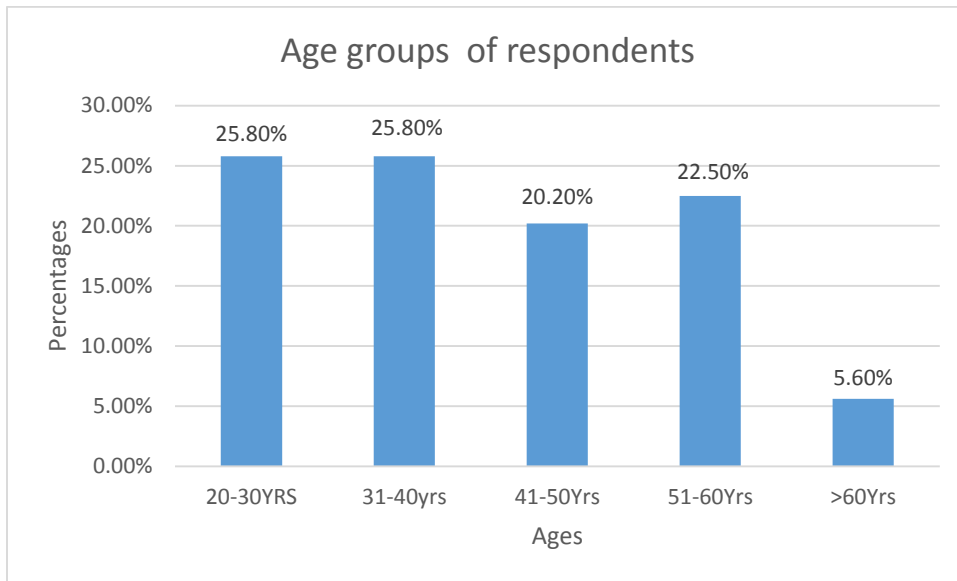


Figure 4.1: Distribution of respondents' ages

Figure 4.1 above shows age distribution percentage of the sample of 89 respondents studied. The ages ranged between 20 and 60. The highest number of respondents was within the age group 20-30 (25.8%) and 31 to 40 (25.8%). Only 5.6% of respondents were > 60yrs of age.

Table 4.1: Profile of the respondents by education, gender and marital status

Variables		Frequency N(89)	Percentage
Education	Diploma	47	52.8%
	Bachelor	42	47.2%
Gender	Male	26	29.2%
	Female	63	70.8%
Marital status	Single	48	53.9%
	Married	41	46.1%

Table 4.1 above shows that the majority of the respondents were females 63 (70.8%) and 26 (29.2%) were males. Most of the respondents had a diploma qualification 47 (52.8%) and 42 (47.2%) had a bachelors' qualification. Also 48 (53.9%) of the respondents were single and 41 (46.1%) were married.

Table 4.2: Profile of the respondents by professional category

Professional category	Frequency N (89)	Percentage
Nursing	57	64.0%
Allied	18	20.2%
Doctor & dental	14	15.7%

Table 4.2 above shows that 57 (64.0%) of the respondents are professional nurses, 18 (20.2%) allied profession and 14 (15.7%) are doctors and dental professionals.

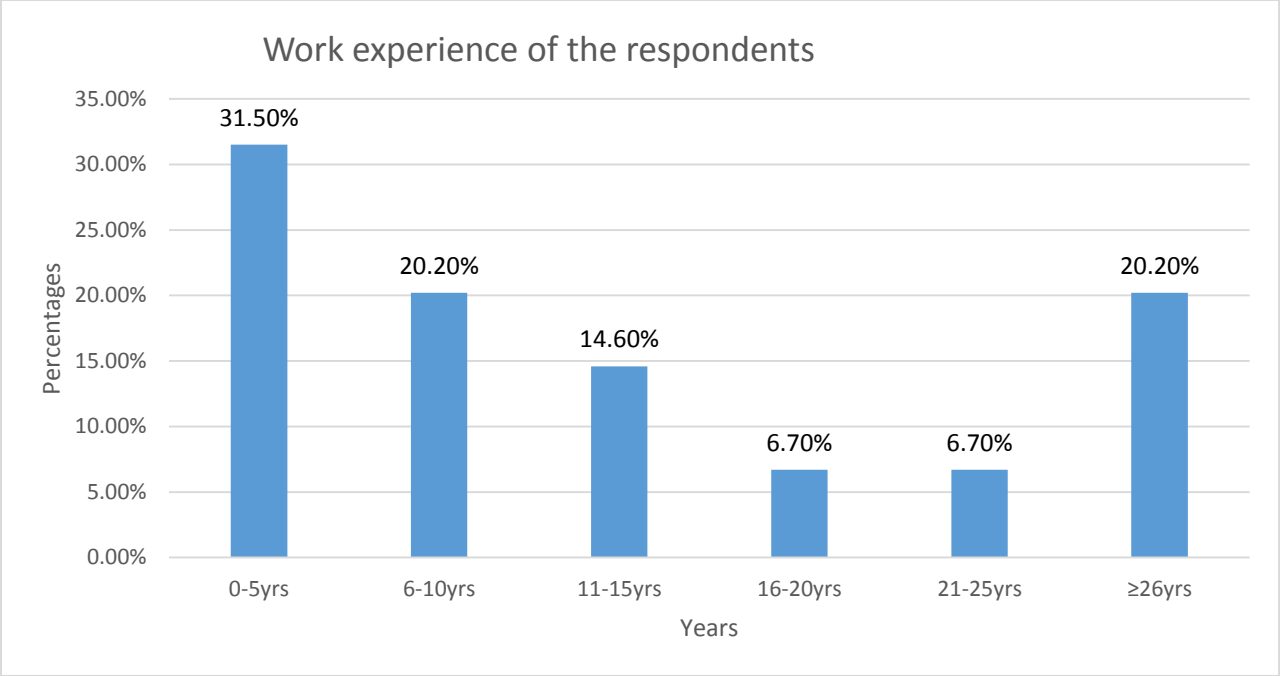


Figure 4.2: Profile of the respondents by work experience

Figure 4.2 above shows that 28 (31.5%) of the respondents have work experience of ≤ 5 yrs and 18 (20.2%) had worked for 6-10 yrs; making those with ≤ 10 yrs work experience account for half of the respondents. Also, only 18 (20.2%) respondents had 26 yrs work experience.

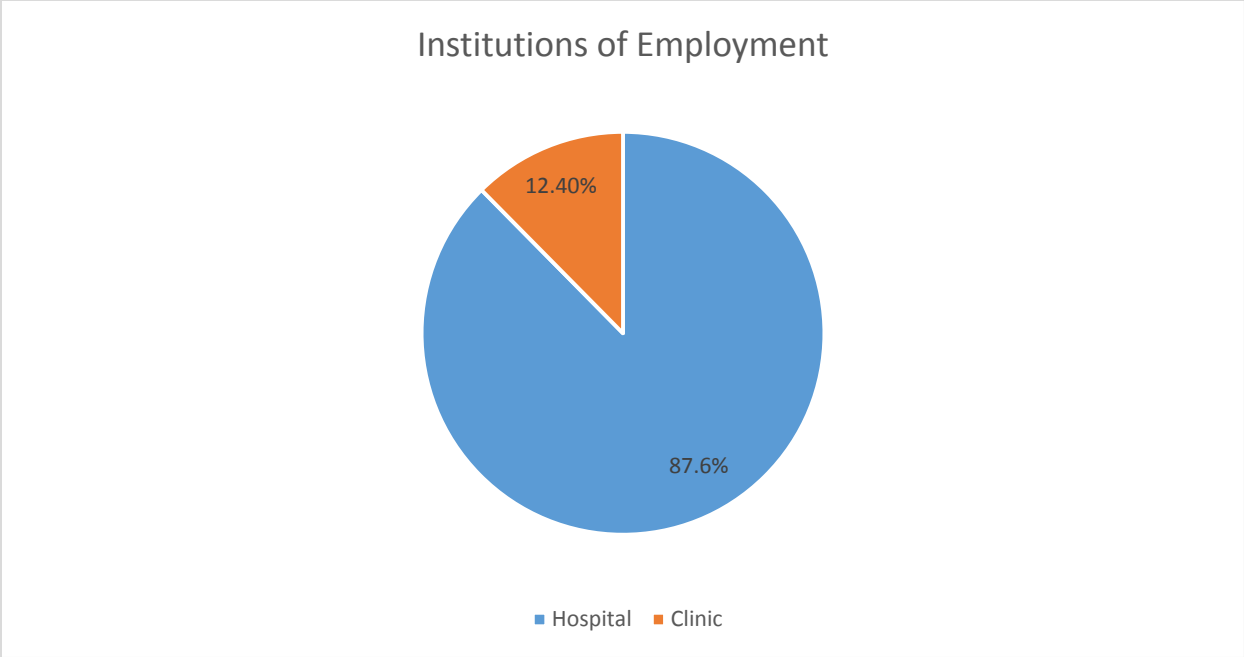


Figure 4.3: Profile of the respondents by place of employment

Figure 4.3 above shows that the majority of the respondents 78 (87.6%) were employed at the hospital and the other 11(12.4%) respondents employed at the PHC clinics.

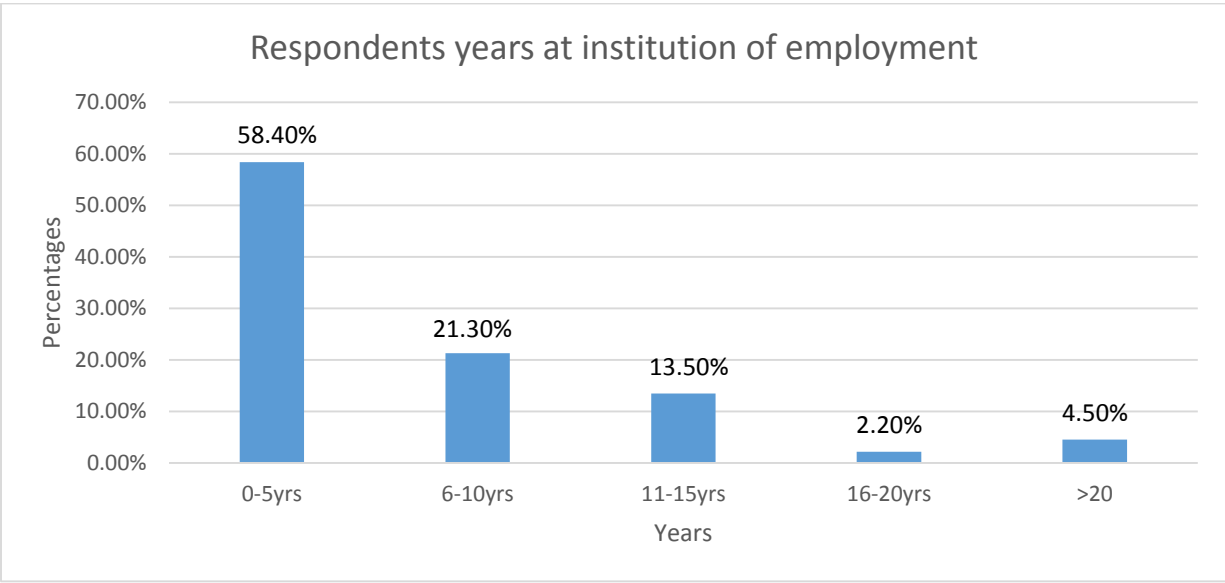


Figure 4.4: Profile of the respondents by years employed at present institution

Figure 4.4 shows that more than half of the respondents had worked ≤ 5 yrs at their respective institutions 52 (58.4%), and 19 (21.3%) had been employed at the institution for 6-10 yrs. Only 4.5% (4) respondents were employed at a clinic or hospital for > 26 yrs. The majority of respondents were employed at the current clinic or hospital for ≤ 10 yrs.

Table 4.3: Respondents perceptions towards optometry service delivery

	Statement	Responses n/N (%)N=89		
		Agree	Neutral	Disagree
1.	I think everyone must have their eye tested by an optometrist	82(92.1%)	5(5.6%)	2(2.2%)
2.	I think the time taken to receive the prescribed spectacle is reasonable in Zebediela hospital optometry department	30(33.7%)	33(37.1%)	26(29.2%)
3.	I think I need more information on optometry services provided at Zebediela hospital	64(71.9%)	15(16.9%)	10(11.2%)
4.	I think patients are aware of all services provided in the hospital	44(49.4%)	30(33.7%)	15(16.9%)
5.	I think it is advisable to consult at Zebediela optometry department for my eye care needs	72(80.9%)	13(14.6%)	4(4.5%)
6.	I think the Zebediela optometry department is well staffed	32(36.0%)	42(47.2%)	15(16.9%)
7.	I think the Zebediela optometry department is adequately equipped	20(22.5%)	40(44.9%)	29(32.6%)
8.	I think that the Zebediela optometry department provide good quality assistive devices (spectacles)	50(56.2%)	33(37.1%)	6(6.7%)
9.	I think that private optometry service practitioners are more efficient than public hospital optometry service practitioners	22(24.7%)	26(29.2%)	41(46.1%)
10.	I think that the private optometry service practitioners offers more services than public hospital optometry services	32(36.0%)	27(30.3%)	30(33.7%)
11.	I think patients have knowledge of the service of the Zebediela optometry department	51(57.3%)	32(36.0%)	6(6.7%)

Table 4.3 shows perceptions by respondents towards the delivery of optometric services in Zebediela. Ninety-two percent (92.1%) of the respondents agree that everyone must have their eye tested by an optometrist. Also, 71.9% agree they need more information on optometry services provided and 33% agree that time taken to receive the prescribed spectacles is reasonable. Furthermore, 36.0% think the optometry department is well staffed; 22.5% agree that the optometry department is well equipped and 57.3% of the respondents agree that Zebediela patients have knowledge of the optometry services in the hospital.

Table 4.4: Respondents' perceived image of optometry service

	Statement	Responses n/N (%)N=89		
		Agree	Neutral	Disagree
1.	I trust the optometry staff in Zebediela hospital optometry department	81(91.0%)	7(7.9%)	1(1.1%)
2.	I think the infrastructure of the Zebediela optometry department is appropriate for the service	16(18.0%)	27(30.3%)	46(51.7%)
3.	I trust private optometry service practitioners than Zebediela optometry practitioners	23(25.8%)	30(33.7%)	36(40.4%)
4.	I think that the Zebediela optometry department has good corporate image	50(55.1%)	29(32.6%)	11(12.4%)

Table 4.4 above shows perceptions of the respondents to the image of optometry services in Zebediela hospital. Eighteen percent (18.0%) of the respondents agree that the infrastructure of the optometry is appropriate for service and 25.8% trust private optometrists than Zebediela hospital optometrists. Also, 55.1% think that the Zebediela optometry department has good corporate image.

4.3 OVERALL PERCEPTIONS TOWARDS OPTOMETRY SERVICES

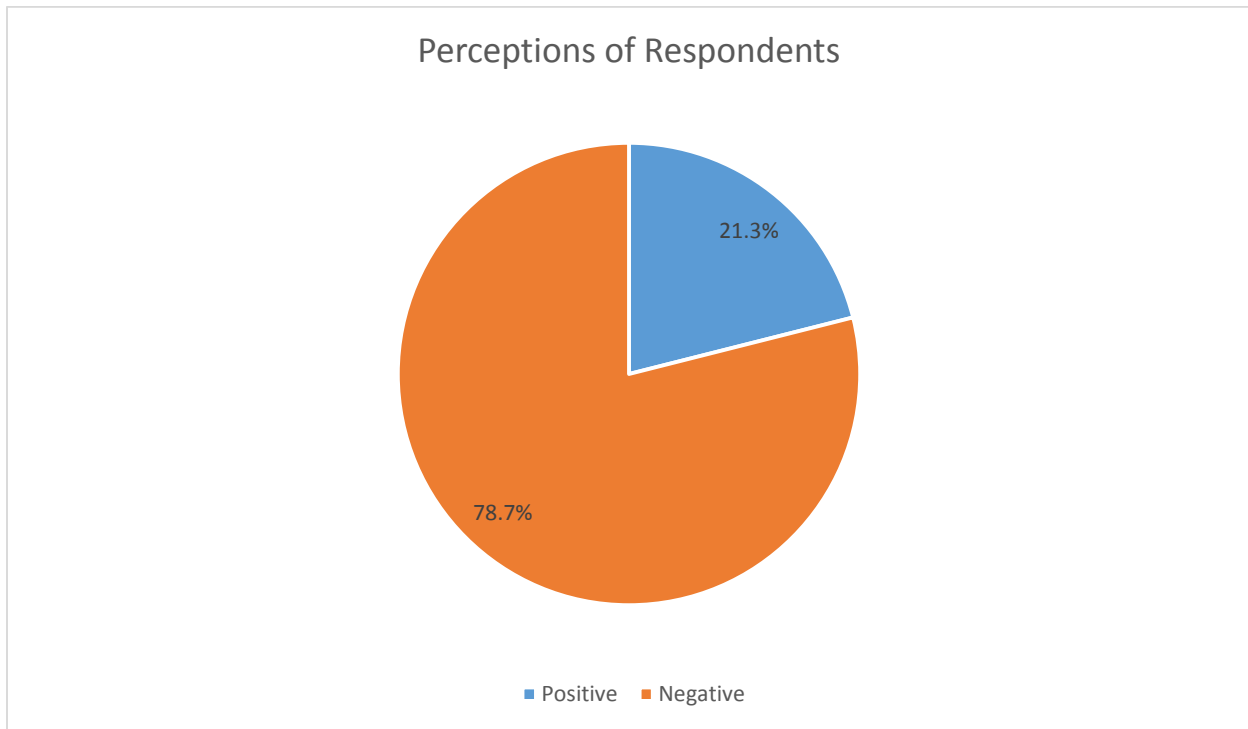


Figure 4.5: Overall perceptions of respondents

Figure 4.5 above shows that only 21.3% of the respondents have positive overall perception and 78.7% have negative perception towards optometry services.

Table 4.5: Respondents' attitudes towards optometry services

Statements on attitudes towards optometry services		Responses n/N (%)N=89		
		Agree	Neutral	Disagree
1.	I feel free to consult at the Zebediela hospital optometry department	83(93.3%)	4(4.5%)	2(2.2%)
2.	I am confident about the services offered in the Zebediela optometry department	75(84.3%)	13(14.6%)	1(1.1%)
3.	I am confident about the general services offered in Zebediela hospital	49(55.1%)	31(34.8%)	9(10.1%)
4.	I feel that the service offered at Zebediela hospital is adequate	41(46.1%)	36(39.3%)	13(14.6%)
5.	I feel the staff in the Zebediela optometry are approachable	81(91.0%)	7(7.9%)	1(1.1%)
6.	I feel good that the optometry service is available at Zebediela Hospital	81(91.0%)	8(9.0%)	0(0%)
7.	I feel free that my family members consult at Zebediela hospital	59(66.3%)	23(25.8%)	7(7.9%)
8.	I feel free that my family members consult in the Zebediela hospital optometry department	66(74.2%)	14(15.7%)	9(10.1%)
9.	I like the spectacles frames provided at the Zebediela optometry department	36(40.4%)	46(51.7%)	7(7.9%)

Table 4.5 above shows attitudes of respondents towards optometry services in Zebediela hospital. From the results, 46.1% feel that the service offered in the hospital is adequate; whilst 91.0% feel good that the optometry services are available in the hospital and 40.4% like the spectacles frames provided at the optometry department.

4.4 OVERALL ATTITUDES TOWARDS OPTOMETRY SERVICES

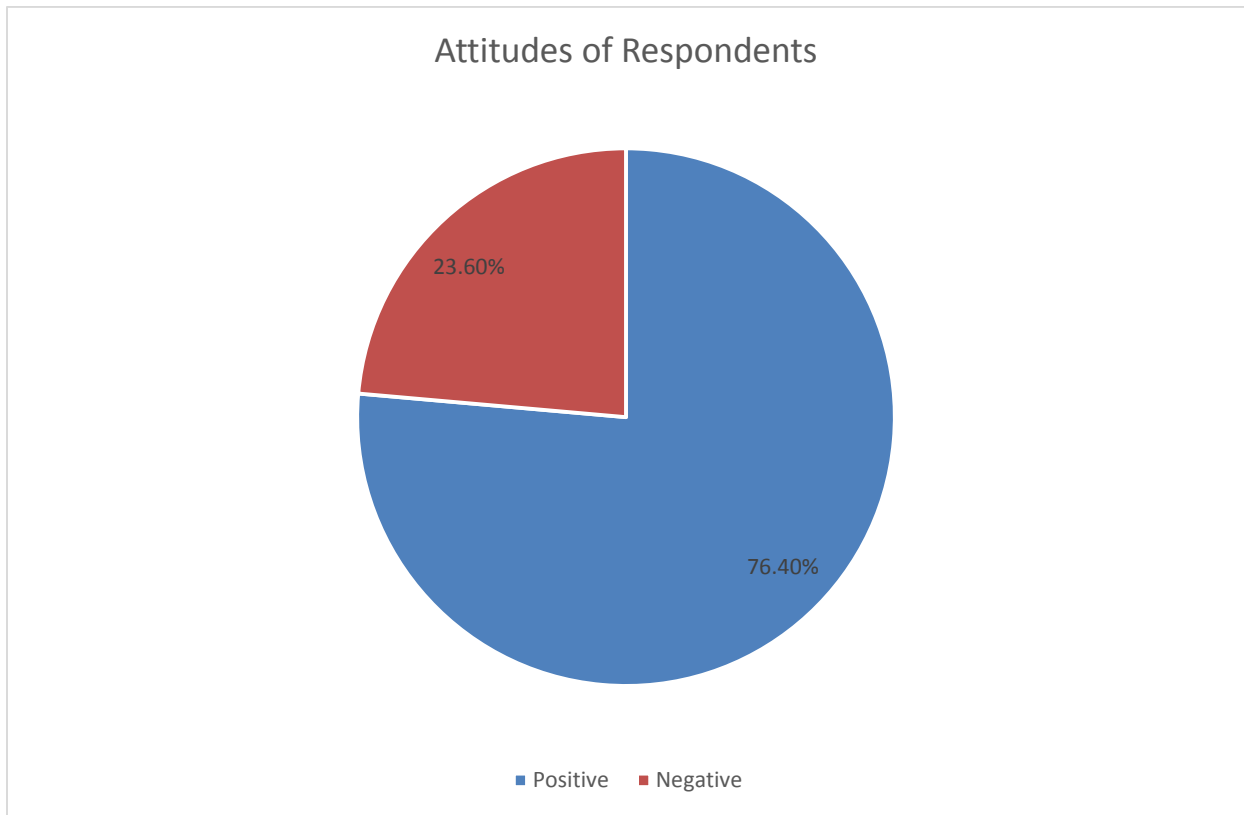


Figure 4.6: Overall attitudes of respondents

Figure 4.6 above shows that 76.40% of the respondents have overall positive attitude and 23.6% have negative attitude towards optometry services in Zebediela hospital.

4.5 PERCEPTIONS OF RESPONDENTS VERSUS SOCIO-DEMOGRAPHICS PROFILE OF RESPONDENTS

Table 4.6 Perceptions versus Socio-Demographic profile of respondents.

Variables		Positive Perception N (%)	Negative Perception N (%)	P value
Age groups	<=40yrs (n=45)	12 (26.6)	33 (73.3)	$\chi^2 = 1533$
	>40yrs (n=44)	7 (15.9)	37 (84.1)	P = .164
Gender	Male (n=26)	3 (11.5)	23 (88.5)	$\chi^2 = 2.105$
	Female (n=63)	16 (25.4)	47 (74.6)	P = .120
Profession	Nursing (n=57)	17 (29.8)	40 (70.2)	$\chi^2 = 7.362$
	Allied (n=18)	2 (11.1)	16 (88.9)	P = .025*
	Medical & dental (n=14)	0 (0)	14(100)	
Experience	<=10yrs (n=46)	12 (26.1)	34 (73.9)	$\chi^2 = 1.273$
	>10yrs (n=43)	7 (14.3)	36 (83.7)	P = .193
Institutional Experience	<=10yrs (n=71)	17 (23.9)	54 (76.1)	$\chi^2 = 1.408$
	>10yrs (n=18)	2 (11.1)	16 (88.9)	P = .197

* = statistical significant at 95% CI

Table 4.6 above shows that there was significant association between perceptions and profession (P=0.025). There was no significant association between perception and age group (P=0.165), gender (P=0.120), employment experience (P=0.193) and as well as years in institutional employment (P=0.197).

4.6 ATTITUDES OF RESPONDENTS VERSUS SOCIO-DEMOGRAPHICS PROFILE OF RESPONDENTS

Table 4.7 Attitudes versus Socio-Demographic profile of respondents.

Variables		Positive Attitude N (%)	Negative Attitude N (%)	P value
Age groups	<=40yrs (n=45)	32 (71.1)	13 (28.9)	$\chi^2 = 1.415$ P = .174
	>40yrs (n=44)	36 (81.9)	8 (18.1)	
Gender	Male (n=26)	17 (65.4)	9 (34.6)	$\chi^2 = 2.474$ P = .099
	Female (n=63)	51 (80.9)	12 (19.1)	
Profession	Nursing (n=57)	51 (89.4)	6 (10.5)	$\chi^2 = 15.155$ P = .001*
	Allied (n=18)	10 (55.5)	8 (44.4)	
	Medical & dental (n=14)	7 (50.0)	7 (50.0)	
Experience	<=10yrs (n=46)	32 (69.6)	14 (30.4)	$\chi^2 = 2.470$ P = .093
	>10yrs (n=43)	36 (83.7)	7 (16.3)	
Institutional Experience	<=10yrs (n=71)	51 (71.8)	20 (28.2)	$\chi^2 = 4.073$ P = .035*
	>10yrs (n=18)	17 (94.4)	1 (5.5)	

* = statistical significant at 95% CI

Table 4.7 shows that there was significant association between attitude and profession (P=0.001) as well as years in institutional employment (P=0.035). There was no significant association between attitude and age group (P=0.174), gender (P=0.099), and employment experience (P=0.093).

4.7 CONCLUSION

This chapter presented the results of data analysis. The data was analysed using SPSS 23.0 software for windows. The next chapter will present the discussion of the data analysis, the conclusion and finally the recommendations of the whole study.

CHAPTER 5

DISCUSSION, RECOMMENDATIONS AND CONCLUSION

5.1 INTRODUCTION

The results presented in the previous chapter will be discussed in consideration of previous studies and relevant literature review related to perceptions and attitudes towards public hospital services which included optometry services. The aim of the study was to determine the perceptions and attitudes of healthcare workers towards hospital optometry services in Zebediela. The study objectives were the following:

- *Socio-demographic profile of respondents*
- *To determine perceptions of healthcare workers towards hospital optometry services in Zebediela.*
- *To determine attitudes of healthcare workers towards hospital optometry services in Zebediela.*
- *Association between attitudes, perceptions and socio-demographic factors of healthcare workers in Zebediela*

5.2 DISCUSSION OF THE RESULTS

5.2.1 Objective 1: Socio-Demographic Profile of Respondents

5.2.1.1 *Age of respondents*

The results of this study revealed that close to half of the respondents were over 40 years of age. According to Tajunisah, Wong, Tan, Rokiah and Reddy (2011), as one grows older, their eyes deteriorate and this is the age group that needs to take better care of their eyesight. Apio-Adih (2014) reaffirms that age is a predisposing factor that is significantly associated with the use of eye care services. According to National Institute of Health (NIH) (2016) there is a higher risk of developing age-related eye diseases and

conditions like low vision, age-related macular degeneration, diabetic eye disease, glaucoma, cataract retinal detachment and dry eye. According to review by Jaggernath et al. (2014), 10% of children and 80% of adults over the age of 40 years in South Africa need refractive services and correction. Because many of the changes of the eye are due to age, the healthcare seeking behaviours of young and old become different. This implies that the older the person becomes, the more likely that one might need to consult an eye care professional including an optometrist.

5.2.1.2 Gender of respondents

The results of the study revealed that the majority of the respondents were females. The greater number of females within health sector is expected as most of the health professionals are females and account for a greater number in health institutions (SANC, 2014). Because of this ratio of men to that of females, it is expected that females will take better care of their eyesight, because it is a known that females display a better health seeking behaviours than males. Apio-Adih (2014) found that more females than males used health care services in Ghana. Studies by Deeks, Lobard, Michelmore and Teede (2009) and Wang, Hunt, Nuazareth, Freemantle and Petersen (2013), report that, men tend to use medical facilities less as compared to women. The study by Dryden, Williams, McCowan and Themessl-Huber (2012) also revealed that men from low incomes, low socio-economic status, unemployed or less well educated are least likely to attend health checks. It is therefore expected that more females will seek eye care services than males in the current study.

5.2.1.3 Professional category of respondents

The results of the current study revealed that there are more professional nurses compared to other professionals. This was expected because of large number of nurses in the healthcare profession in South Africa. According to the South African health review 2014/15 (2015), 76.8% of all health professionals in the public sector (excluding general assistants) are nurses of all categories. Nurses are said to be the “backbone” of the health system worldwide as they provide services at the forefront of health and are key in

ensuring translation of relevant policies into practice at primary health care level according to report by Australian Nursing and Midwifery Federation (2009). It is therefore not surprising that there were more nurses in the study sample compared to other professionals, however, the researcher ensured equal representation of all professionals by using stratified random sampling to select professionals according to their professions.

5.2.2 Objective 2: To determine perceptions of healthcare workers towards hospital optometry services in Zebediela.

5.2.2.1 *Perceptions of healthcare workers toward hospital optometry services* The study revealed that the majority of the healthcare workers in Zebediela showed negative perceptions towards the optometry service at the institution they provide service at. According to a study by Ntsoane and Oduntan (2010) perception is an important factor in the sustenance of health care, and in addition to an increase in service quantity, there is a need to improve the intervention and service quality, to facilitate equitable, acceptable and effective eye care. The development, implementation and monitoring of standards of care and treatment/ clinical guidelines is one mechanism by which this may be achieved. Ayanniyi, Bob-Egbe, Olatunji, Omolase, Omolade, Ojehomon and Edward (2009) recommend publicity that is adequate and efficient, good patient's perception and eye care team that is effective to improve performance and overall satisfaction and awareness about the need to avail eye care services. Ashaye, Ajuwon and Adeoti (2006) state that dissatisfaction with service delivery is a barrier to eye care utilization. It is therefore important that healthcare workers and healthcare institutions remain positive and show confidence in the services they themselves provide.

Health professionals are ordinary citizens of the country, the same information that the public is exposed to applies to the health professionals. Perceptions of the health professional are mostly influenced the same way as everyone in the same community or country.

5.2.2.2 Perceptions of healthcare workers toward hospital optometry services delivery

There is a perception that the optometry department lacks appropriate equipment by a third of the respondents and less than half were neutral as they may not know the optometry equipment. This perception is carried throughout Africa and the world as Bakeera et al. (2009) agree that public health facilities are perceived to offer low quality of care with chronic gaps such as shortages of essential supplies.

In a study by Schriver, Meagley, Norris, Geary and Stein (2014) young people were not impressed with the health services citing lack of resources, long waiting times and poor quality of care, lack of choice and perceived inequity. In the current study, majority of respondents reported that time taken to receive the spectacles was too long. Indeed, from the departmental perspective, the official waiting time for spectacle is six weeks, sometimes it takes longer, whilst in contrast to private optometric practice which can be as little as an hour to a week. The public hospitals' waiting time to consult at the hospital in Limpopo is three hours, which is regarded as a norm and time less than that is applauded. Zebediela hospital average waiting time average in 2014 and 2015 is 2 hours 50 minutes according to the service delivery report 2014/15. However, delivery of essentials such as spectacles to clients takes time due to delays in procurement and resulting in delay in supplying to client. This means, whilst the department of optometry in Zebediela hospital prides itself in efficient service delivery, in terms of assessment of clients, the only stumbling block would be the time it takes to receive the spectacles, and the type of spectacles that are delivered.

Also, the results showed that two thirds of respondents perceived that the optometry department to be not adequately staffed. According to Rao, Stierman, Bhatnagar, Gupta and Gaffar (2013) in India lack of staff undermines public trust and quality in any profession of government health services. During the current study, Zebediela optometry vacancy rate stood at sixty percent of the required 2011 vacancy structure requirement, meaning, contrary to respondent's perceptions, the department of optometry is adequately staffed. However, lack of visibility or familiarity to the profession by peers make colleagues to think that there is poor staffing in optometry department.

5.2.2.3 Perceptions of healthcare workers toward hospital optometry image

The results of the current study revealed that the respondents perceived the image of the optometry department as acceptable. However, it is possible that respondents accept the situation as is, because, in Zebediela, optometry department is housed in a ward, shared by other disciplines, making it to be less visible to people. Bouchikhi and Kimberly (2008) organizational culture is a set of beliefs and unwritten rules which governs how people behaves in an organization. These sometimes unseen and seen shared beliefs form part of the corporate image (Rutitis, Batraga, Muizniece & Ritovs, 2012).

The majority of respondents felt that they trusted the optometry staff in Zebediela hospital. In America, a study by Owsley, McGwin, Scilley, Girkin, Phillips and Searcy (2006), pointed out that trust was among the common problems most frequently cited by African Americans to barrier-to-care. Schriver, Meagley, Norris, Geary and Stein, (2014), went on to find more evidence that countries with higher corruption levels were associated with worse perceptions of quality of health. These may be because corruption is associated with none delivery of proper essentials in general. Limpopo Province has been reported as one of the corrupt provinces in South Africa, as a result, they often overspend on their budget and the province was under administration in 2011 according to Place and Street (2012). In cases like these, the hospitals suffer severe stock-outs and that directly impact on service delivery.

Most respondents regarded the optometry department to have a positive corporate image, even though the department is situated in one of the wards as already discussed, where access is limited by distance and visibility of the department to hospital staff and patients. These perceptions of good corporate image may be because the employees, including health professionals are oriented on assumption of duty, to the whereabouts of the department and they are content with the setup.

The type of spectacles provided by the hospital is another negative factor that negatively impacted the perception of the optometry department in Zebediela hospital. Spectacle frames are perceived to be an item of style or attractiveness. A study in Nigeria by

Ebeigbe, Kio and Okafor (2013) revealed that just more than half of students perceived people who wore spectacles as visually handicapped, believed that they would be teased if they wore spectacles because of the type of spectacles they wear. The attractiveness of spectacles plays a significant influence in whether a person uses the prescribed spectacles or not. Therefore, it is essential for the optometry department to offer attractive spectacle frames, when budget allows.

5.2.2.4 Perceptions of respondents versus Socio-demographics profile of respondents

The results of the study further revealed that there was no significant association between perceptions and age of respondents, ($p > 0.05$). However, in contrast, studies have found that increase with age have been associated with the likelihood to use eye care service, (Patel, Baker & Murdoch, 2006). Also, the differences in the current study could be attributed to the differences in sample size between the current study and that of Patel et al., (2006). The sample size of 97 by the researcher in the current study was too small to generalize findings for the province. Other studies comparing perception and age within health care settings also reported no association between age and perception, e.g. a study by Nikoloski and Mossialos (2013) in England found no linear association between age and perception of participants towards healthcare in their study. The presence of eye problems in older persons is the force behind the significant increase in utilisation of eye care service by older person (Palagyi, Ramke, Du Toit & Brian, 2008). It must also be emphasized that the current study was focusing on service delivery within public hospital, and the findings do not imply that all healthcare workers were not utilizing optometry services elsewhere, e.g. private practices.

According to Patel et al. (2006) and Palagyi et al. (2008) being a female was associated with being more likely to use eye care services. However, the current study found that there was no significant association between perception and gender ($p > 0.05$), this may be due to the disproportionate ratio of male to female in the current study.

The results of the current study revealed that there was a significant association between profession and perception, with the majority of the respondents being negative towards

the optometry department. Of interest is that fact that all the doctors were found to be negative towards the optometry service in the current study. This may be due to lack of understanding of the services rendered by the optometrist or general eye health services. This was also highlighted by Alexander, Miller, Cotch and Jeniszewski. (2008) who reported that less than 10% of adults reported that a doctor had spoken with them about eye health or disease within the past year. This means that doctors need to be empowered about the services rendered by optometry department, so that they are able to refer patients to this department. It is assumed that with good knowledge, attitude and perception of eye care, there will be improved uptake and utilization of eye care services (Al-Aliwi, Al-Hassan, Chauhan, Al-Futais & Khendekar, 2016; Stapleton, Stahl & Golebiowski, 2011). It is also important to ensure that all employees of the hospital are orientated by walk about and introduced to colleagues at respective departments including optometry department. In contrast, a study by Baker, Bazargan, Bazargan-Hejazi and Calderón (2005) found that there is a positive association between education and eye care use with those who are educated more likely and timely having their eyes tested. The majority of the respondents in the research agree that they must have their eyes tested by an optometrist, however, it is a concern that they do not view the optometry department as service of choice whereas it is within their space.

The results of the study revealed that about half of the respondents considered private optometrists not to be offering more procedures than public hospital optometrists. And most respondents do not trust private optometrist not more than public Zebediela hospital optometrists. However, it is not clear why these respondents were not using the services rendered within the hospital and still opt to seek services in private sectors. The most highlighted problems emanate from the types of spectacle frames offered and turnaround time it takes to deliver spectacles to patients.

5.2.3 Objective 3: To determine attitudes of healthcare workers towards hospital optometry services in Zebediela.

5.2.3.1 *Attitudes of healthcare workers towards optometry services*

The study revealed that the majority of respondents had positive attitude towards optometry services in Zebediela. In the study in Uganda by Bakeera et al. (2009) also acknowledged that service acceptability depended on the health worker attitudes and practices. Studies show that clinical decision-making, attitude to care and improved practical skills are enhanced when there is availability of health information (Pakenham-Walsh & Bukachi, 2009). Even though the results of the current study revealed a positive attitude towards optometry services, it is surprising that the level of repeat uptake by healthcare workers was so poor in Zebediela hospital. Studies show that there is an association between availability of health information and quality health care. Mosadeghrad (2014) concluded that health quality can be improved by education and training, availability of resources collaboration and cooperation among providers. Study by Alexander, et al (2008) found that knowledge about certain eye diseases and conditions may influence attitudes of healthcare workers about eyesight and eye examination, which significantly impact on their ability to refer patients with eye conditions. Also, Alexander et al. (2008) found that primary care providers did not communicate information to patients about eyesight nor did they conduct basic eye screening due to their attitudes towards eye-care. In the current study, participants stated that they required more information about eye care services, meaning they somehow lack skills to screen and refer patients for eye-care. These results imply that positive attitude did not lead to good practice, in terms of referral and self-referral in the hospital.

In this current study, healthcare workers were found to have a negative attitude towards general services at the hospital however the staff rated the services of optometry positively. Attitude was negatively affected by the adequacy of the services provided in general by the hospital which was very low as compared to private hospitals.

The results of this study revealed that more than half of the respondents were not sure whether they like the type of spectacle provided by the Zebediela optometry department. Huon (2007) in West Africa reported that spectacle frames are as much about style as they are about functionality, therefore frame styles should be considered with the local population in mind. The fact that the hospital allocates less budget for frames, forces the optometry department to order cheap frames which are mostly not nice to look at. As a result of this, respondents and patients are usually not satisfied with the type of frames they receive.

Positive attitude in this research might be because of combination of predisposing, enabling, and need characteristics as majority of the respondents feel free to consult at the Zebediela hospital optometry department. The majority of the respondents felt that the staff members in the Zebediela optometry are approachable. The attitude of the optometrist can make a difference in how the patient feels. The positive attitude of the optometrist helps the patient to feel cared for with compassion. A positive attitude can be infectious according to Wooldridge (2016). Meaning that if and when health professionals are positively infected by attitude of the optometrist, they them self will be positively inclined to utilize the services and refer patients to the service.

Enabling factors encompass family, community resources and accessibility to those resources. Confidence about the service was displayed by the majority of the respondents. According to Hall (2014) the key enabling factors that motivates patients to seek eye care is their positive attitudes about vision and eye care and confidence in their providers.

5.2.3.2. Attitude of respondents versus Socio-demographics profile of respondents

The results of the current study revealed no significant association between age and attitudes of the respondents ($p > 0.05$) towards Zebediela optometry department. In contrast, Adeoti (2009) found a significant association between age and the use of spectacles or its use if prescribed in Nigeria, with older people tending to support the use of spectacles than the young ones.

A survey conducted in Britain by British Eye Health (2013), revealed that, significant country's population view sight test as very important, women more than men viewed it that way, also, a study by Adeoti (2009), found that gender was significantly associated with the use of spectacles for various reasons which include belief and attitude, and the majority of females were in favour of using of spectacles than males. This was in contrast with the current study that revealed no significant association between gender and attitudes of the respondents, this may due to the statistically unbalanced number of female to male ratio in the study and health sector. Olusanya, et al. (2016) findings revealed that the effect of male gender on utilization was not statistically significant even when adjusted for age and education to equal female. Gupta and Murthy (1995) who conducted their study in (India) a developing country which South Africa is one, have reported that men were more likely to seek eye care which will be regarded as having positive attitude. This may possibly be due to the fact that females in developing countries in certain areas are less likely to be educated.

The study revealed a significant association between profession and attitudes of the respondents ($P=0.001$) and there was a positive association between profession and attitude. In a study by Azodo and Ezeja (2014) in Nigeria revealed that a significant proportion of dentists and student rated ocular health as excellent/good however, they did not regularly practice eye safety protocols. This implies that, even if the professionals have positive attitudes towards eye health with receipt of professional eye examination they still do not engage in the use of protective eye wear. It is interesting to note that all the dental staff have positive attitude towards optometry in the present study, which doesn't mean that they actually sought services from optometry department in Zebediela Hospital. In Nigeria it was noted in a study by Akinsola, Alimi, Oyeleye and Majekodunmi (2004), that there was a low compliance to the recommended annual eye check-up by doctors and the major reason for consultation at an optometrist was symptomatic like the non-health public. This is concerning, because a regular check-up compliance to the optometrist or health care profession is part of treatment and wellbeing. Having positive attitude does not translate to practical positive action as the results of the studies reveal. Continuous and regular awareness programs on eye health are recommended.

The current study revealed no significant association between professional experience in years and attitudes of the respondents ($P=0.093$) but revealed a significant association between years in institutional experience and attitudes of the respondents ($P=0.035$). Study by Yang (2008) revealed that in general, older persons hold favourable attitudes in life than young people and are more content with what is happening around them, meaning that their health seeking behaviour supersedes that of younger people. This might be what the health professionals are displaying in holding positive attitude as they exist in their working environment.

5.3 CONCLUSION

As health care workers are the integral part of society their perceptions and attitude toward optometry services are groomed not differently from the general society despite their proximity to eye conditions and diseases. Personal related barriers are more common than service related, as such health professional's attitude and perception will be shared in the society. Freedom of choice, spectacle frames and service delivery issues explain matters behind the perceptions and attitude by towards optometry services in Zebediela hospital. The ability to get relatively efficient service and choice of spectacle frames seems to affect the ability of an optometry service to attract health care workers based on their perceptions and attitudes.

5.4 RECOMMENDATIONS

5.4.1 Education

As much as other researchers have recommended that awareness campaigns are needed to bring a change in attitudes, behaviour and knowledge among individuals to improve up take of optometry and other health services. The researcher recommend that inter health professional's campaigns by optometrists also be intensified to allow knowledge and referral protocol dissemination to other healthcare professionals.

5.4.2 Practice

The researcher also recommends stocking of brand spectacles frames, to attract high income earners to public facilities and uptake of services. As much as it is important to spread the importance of the use of spectacles, it is also important to provide service to all members of the community.

Improved communication between practitioner and client/patient is recommended for a prolonged clinical benefit of the patient also improving understanding between the service users and eye care practitioner.

Aligning of processes of spectacle/assistive devices provisioning to improve and shorten the waiting time to receive spectacles

5.4.3 Research

The researcher further recommends more research, to understand the behaviour of health care workers towards eye health in South Africa as a whole and the results to be used to improve eye care of ordinary citizens who use the public health facilities.

5.5 LIMITATIONS OF THE STUDY

The study describes health care professional's perceptions and attitudes, rather than their actual behaviour in utilization of public optometry services. Given that the respondents are public healthcare workers, the responses may have been influenced by social desirability factors, it is possible that more respondents would actually be negative in perceptions and attitudes in other situations. The results of the study cannot be generalised to all health professionals in Limpopo as it describes the situation of specific population at a specific area.

6. REFERENCES:

- Aaker, J, Vohs, K & Mogilner, C. 2010. Non-profits are seen warm and for profits are competent: firm stereotypes matter. *Journal of Consumer Respond*, 37 (2): 224-237.
- Adaramaja, SR & Baba, S. 2007. Practice and efficacy of alternative medicine in Nigeria. *Journal of Health Education Sport Science*, 6:1-4.
- Adeoti, CO. 2009. Beliefs and attitude towards spectacles. *Nigerian Journal of Clinical Practice* 12 (4):359-361.
- Akinsola, FB, Alimi HL, Oyeleye, TO & Majekodunmi, AA. 2004. Knowledge, attitude and practice of eye health care amongst doctors in Lagos. *Nigerian Quarterly Journal of Hospital Medicine*, 14 (1):31–34.
- Aklilu, A, Ololo, S & Megersa, B. 2012. Healthcare workers' perceptions towards hospital leadership and institutional structure in Chiro and Gelemso hospitals, West Hararghe Zone, East Ethiopia. MPH (Health services management) dissertation. Jimma University, Ethiopia.
- Al-Aliwi, A, Al-Hassan, A, Chauhan, D, Al-Futais, M & Khendekar, R. 2016. Knowledge, attitude and perception of barrier for eye care among diabetic persons registered at employee health department of a tertiary eye hospital of central Saudi Arabia. *Middle East Africa Journal of Ophthalmology*, 23 (1):71-74.
- Alexander, RL, Miller, NA, Cotch, MF & Janiszewski, R. 2008. Factors that influence the receipt of eye care. *American Journal of Health Behavior*, 32 (5):547- 556.
- Andersen, R.M., 1995. Revisiting the behavioral model and access to medical care: does it matter? *Journal of Health and Social Behavior*.1-10.
- Anuar, ZF & Kadir, A. 2009. Occupational safety and health risk perception among medical laboratory workers in Klang Valley. *Journal of Community Health*, 15(2).

Apio-Adih, H. 2014. *The use of eye care services among civil servants in Accra*. Doctoral dissertation. University of Ghana.

Appiah-Gyimah, R, Agyapong, GK & Boohene, KA. 2011. Customer satisfaction in the outdoor advertising industry: A case of Alliance Media Ghana Limited. *International Journal of Marketing Studies*, 3 (2):82.

Ashaye, A, Ajuwon, A & Adeoti, C. 2006. Perceptions of blindness and blinding conditions in rural communities. *Journal of the National Medical Association*, 98 887-893.

Australian Nursing & Midwifery Federation. 2009. Primary Health Care in Australia: A nursing and midwifery consensus view. [online] Rozelle: Amanda Adrian & Associates. From: http://anmf.org.au/documents/reports/PHC_Australia.pdf. (Accessed 10 April 2015)

Awobem, JF, Cassels-Brown, A, Buchan, JC. & Hughes, KA. 2009. Exploring glaucoma awareness and utilization of primary eye care services: community perceived barriers among elderly African Caribbean's in Chapeltown, Leeds', *EYE* 23: 243.

Ayanniyi, AA, Bob-Egbe, S, Olatunji, FO, Omolase, CO, Omolade, Ojehomon, F & Edward, MK. 2009. Social marketing potential of qualitative cost-free-to patient eye care programme in a Nigerian community. *Annals of African Medicine*, 8: 225-228

Azodo, CC & Ezeja, EB. 2014. Ocular health practices by dental surgeons in Southern Nigeria. *BMC Oral Health*, 14(1):115.

Baasanhu, J, Johnson, GJ, Burendei, G & Minassian, DC. 1994. Prevalence and causes of blindness and visual impairment in Mongolia: a survey of populations aged 40 years and older. *Bulletin of the World Health Organization*, 72(5):771

Bakeera, SK, Wamala, SP, Galea, S, State, A, Peterson, S & Pariyon, GW. 2009. Community perceptions and factors influencing utilisation of health service in Uganda. *International Journal of Equity in Health*, 8:25.

Baker, RS, Bazargan, M, Bazargan-Hejazi, S & Calderón, JL. 2005. Access to vision care in an urban low-income multi-ethnic population. *Ophthalmic Epidemiology*, 12(1):1-12.

Boadi-Kusi, SB, Kumi-Kyereme, A, Awusabo-Asare, K, Ocansey, S & Kyei, S. 2013. Perceptions about Vision and Utilization of Eye Care Services among Cocoa Farmers in a Rural Community in Ghana. *International Journal of Health Research*, 6 (3).17-25

Bouchikhi, H & Kimberly, JR, 2008. *The soul of the corporation: how to manage the identity of your company*. Pearson Prentice Hall.

British Eye Health. 2013. British's Eye Health in Focus: A snapshot of consumer attitude and behaviour towards eye health. From <http://college-optometrists.org/.../document.../A60DE8E4-B6CF-49ED-8E0FE694FC> (Accessed 7 August 2016)

Chawla, K & Rover, J. 2010. Survey of patient Opinion on eye glasses and eye care in rural and slum populations in Chennai. *Internet Journal Epidemiology* 8 (2):4-5.

Cinaroglu, S. 2014. Patient's perception of reputation and image-Private and public hospitals. *African Journal of Marketing Management*, 6(2):12-16.

Curry, LA, Nembhard, IM & Bradley, EH. 2009. Qualitative and Mixed Method Provide Unique Contributions to Outcomes Research. *American Heart Association Journal*, 119:1442-152.

Dash, P & Meredith, D. 2010. When and how provider competition can improve health care delivery. McKinsey & Company. From: <http://www.mckinsey.com/industries/healthcare-systems-and-services/our->

[insights/when-and-how-provider-competition-can-improve-health-care-delivery.](#)

(Accessed on 29 October 2016)

De Souza, N, Cui, Y, Looi, S, Paudel, P, Shinde, L, Kumar, K, Berwat, R, Wadhwa, R, Daniel, V, Flanagan, J & Holden, B. 2012. The role of optometrist in India: An integral part of an eye health team. *Indian Journal of Ophthalmology*, 60(5): 401-405.

Deeks, A, Lombard, C, Michelmore, J & Teede, H. 2009. The effect of gender on health related behaviours. *BMC Public Health*, 9(1):213.

Dhaliwal, U. & Gupta, S. 2007. Barriers to uptake of cataract surgery in patients presenting to hospital. *Indian Journal of Ophthalmology* 255(2):133-136.

Dreves, F, Tscheulin, DK & Lindenmeier, J. 2014. Do patient perceptions vary with ownership status? A study of non-profit, for-profit, and public hospital patients. *Non-profit and Voluntary Sector Quarterly*, 43(1):164-184.

Dryden, R, Williams, B, McCowan, C & Themessl-Huber, M. 2012. What do we know about who does and does not attend general health checks? Findings from a narrative scoping review. *BMC Public Health*, 12:723.

Ebeigbe, JA, Kio, F & Okafor, LI. 2013. Attitude and beliefs of Nigerian undergraduates to spectacles. *Ghana Medical Journal*, 47:2.

Ekpenyong, BN & Ikpeme, BM, 2009. Uptake of eye care services in University of Calabar teaching hospital, Cross River state, Nigeria. *Journal of the Nigerian Optometric Association*, 15(1):24-27.

Finger, RP, Ali, M, Earnest, J & Nirmalan, PK. 2007. Cataract surgery in Andhra Pradesh state, India: an investigation into uptake following outreach screening camps. *Ophthalmic Epidemiology*, 14(6):327-332

Frazier, M & Kleinstein, RN. 2009. Optometric care within the public community ACCESS AND BARRIERS TO VISION, EYE, AND HEALTH CARE. Old post publishing, Cadyville, New York.

Gecti, F. 2014. Examining Price perception and the relationships among its dimension via structural equation modelling: A Research on Turkish consumes. *British Journal of Marketing Studies*, 2(1):1-11.

Gooding, K. 2006. Poverty and Blindness: A survey of the literature, Sightsavers. International Programme Development Unit. From: <http://www.vision2020uk.org.uk/library.a?sp?section=000100050005>.

Gupta, SK & Murthy, GV. 1995. Where do persons with blindness caused by cataracts in rural arrears of India seek treatment and why? *Archives of Ophthalmology*, 113:1337-1340.

Hall, LB. 2014. Barriers to eye care among patients with age-related macular degeneration in the Yale eye center. *Yale Medicine Thesis Digital Library*. 1885. From: <http://elischolar.library.yale.edu/ymtdl/1885/> (Accessed 17 September 2015)

Harris, B & Sampson, G. 2005. Gender differences in the utilization of optometric services in Victoria. *Clinical Experimental Optometry*, 88(2):109-112.

Hayden, C. 2012. The barriers and enablers that affect access to primary and secondary eye care services across England, Wales, Scotland and Northern Ireland. RNIB report: RNIB/CEP/IR/ 01.

Health Professional Council of South Africa. 2016. Statistics. From <Http://www.hpsa.co.za/Publication/Statistics>. (Accessed 25 January 2017)

Huon, T. 2007. Experiences with optical centres in West Africa. *Community Eye Health*, 20(63):53.

Jaggernath, J, Øverland, L, Ramson, P, Kovai, V, Chan, VF & Naidoo, KS. 2014. Poverty and eye health. *Health*, 2014.

Kaliyaperumal, KIEC. 2004. Guideline for conducting a knowledge, attitude and practice (KAP) study. *AECS Illumination*, 4(1):7-9.

Kalua, K, Gichangi, M, Barassa, E, Eliah, E, Lewallen, S & Courtright, P. 2014. Skills of general health workers in primary eye care in Kenya, Malawi and Tanzania. *Human Resources for Health*, 12(1): S2.

Kawachi, I & Wamala, S. 2007. Poverty and inequality in a globalizing world. *Globalisation and Health*, 122-37.

Kool, B, Webber M & McCool. 2016. DR services in Fiji: Attitudes, barriers and screening practices. *Community Eye Health Journal*, 28:922015. 06-11

Kovia, V, Krishnaiah, S, Shamanna, BR., Thomas, R & Rao, G. 2007. Barriers to accessing service among visually impaired population in rural Andhra Pradesh, South India. Community eye care. *Indian Journal of Ophthalmology*, 55(5):365-371.

Lavier, H, Burhan, I, Omar, F, Jecha, H & Gilbert, C. 2011. Evaluation of distribution of presbyopic correction through primary healthcare center in Zanzibar, East Africa. *British Journal of Ophthalmology*, 95:783-787.

Lee, L, Ramke, J, Blignault, I & Casson, RJ. 2013. Changing barriers to use of eye care services in Timor-Leste: 2005 to 2010. *Ophthalmic Epidemiology*, 20:45-51.

Lehohla, P. 2011. Use of health facilities and levels of selected health conditions in South Africa: Findings from the General Household Survey, 2011. *Pretoria: Statistics South Africa*.

Li, L, Lam, J, Lu, Y, Ye, Y, Lam, DSC, Gao, Y, Sharma, A, Zhang, M, Griffiths, S & Congdon, N .2010. Attitudes of students, parents, and teachers towards glasses use in rural China. *Archives of Ophthalmology*, 128(6):759-765.

Luzzi, L & Spencer, J. 2008. Factors influencing the use of public dental services: An application of the theory of planned behaviour. *BMC Health Services Research*, 8:93.

Mail and Guardian. 2013. 06 September.

Marmamula, S, Keeffe, JE, Raman, U, Rao, GN. 2011. Population-based cross sectional study of barriers to utilisation of refraction services in South India: Rapid Assessment of Refraction Error (RARE) Study. *BMJ Open* 1 (1); e000172.

Marmamula, S, Khanna, RC, Sherkhar, K & Rao, GN. 2014. A population-based cross-sectional study of barriers to uptake of eye care services in South India: The Rapid Assessment of Visual Impairment (RAVI) project. 4

McIntyre, D, Goudge, J, Harris, B, Nxumalo, N & Nkosi, M. 2009. Prerequisites for National Health Insurance in South Africa: Results of a national household survey. *South African Medical Journal*, 99:725-729.

Mohseni, M. & Lindstrom, M. 2007. Social capital, trust in the health-care system and self-rated health: The role of access to health care in a population-based study. *Social Science Medical*, 84(7):1373-83.

Mosadeghrad, A.M. 2014. Factors affecting medical service quality. *International Journal of Health Policy Management*, 3:77-89

National Eye Institute & lions Club International Foundation. 2007. 2005 Survey of public knowledge, attitudes, and practices related to eye health and disease. Bethesda, MD: National Eye Institute. From: [Http://nei.nih.gov/kap/2005KAPFinalRpt.pdf](http://nei.nih.gov/kap/2005KAPFinalRpt.pdf) (Accessed 17 September 2015).

Nikoloski, Z & Mossialos, E. 2013. Corruption, inequality and population perception of healthcare quality in Europe. *BMC Health Service Research*, 13: 472.

Noor, AA. & Bahari, M. 2013. The effects of perceived service quality on patient satisfaction at public hospital in state of Pahand, Malaysia. *Asian Journal of Social Science & Humanities*, 2(3): 2186-8484.

Ntsoane, MD & Oduntan, OA. 2010. A review of factors influencing the utilization of eye care services. *African Vision and Eye Health*, 69 (4).182-192.

OH Services for Health care workers in the national health service of South Africa. 2003. From: <http://www.Kznhealth.gov.za/occhealth/OHmanual.htm> (Accessed 9 September 2016).

Olusanya, BA, Ashaye, AO, Owoaje, ET, Baiyeroju, AM. & Ajayi, BG. 2016. Determinants of Eye Care Services in Rural Adult Population of a developing Country. *Middle East African Journal of Ophthalmology*, 23(1):96-103.

Omolase, CO, Adido, J, Fadamiro, CO, Adepoju, FG, Omolase, BO. 2007. Eye care preferences among rural Nigerians. *Niger Journal of Sung Science*, 17:116-120.

Otutu, M, Nachega, J, Harvey, J & Meyer, D. 2012. The prevalence of refractive error in three communities of Cape Town, South Africa. *African Vision and Eye Health*, 71(1):32-38.

Owsley, C, McGwin, G, Scilley, K, Girkin, CA, Phillips, JM. & Searcy, K. 2006. Perceived Barriers to Care and Attitudes about vision and Eye Care: Focus Groups with older African Americans and Eye Care Providers. *Investigative Ophthalmology & Visual Science*, 47:2797-2802.

Ozawa, S & Walker, DG. 2011. Comparison of trust in public vs private health care providers in rural Cambodia. *Health Policy and Planning*, 26 (suppl 1): i20-i29.

Pakenham-Walsh, N and Bukachi, F. 2009. Information needs of health care workers in developing countries: a literature review with a focus on Africa. *Human Resources for Health*, 7(1):30.

Palagyi, A, Ramke, J, Du Toit, R & Brian, G. 2008. Eye care in Timor-Leste: a population-based study of utilization and barriers. *Clinical & Experimental Ophthalmology*, 36(1):47-53.

Patel, D, Baker, H & Murdoch, I. 2006. Barriers to uptake of eye care services by the Indian population living in Ealing, west London. *Health Education Journal*, 65(3):267-276.

Petrick, JF. 2009. The Role of Quality, value, and satisfaction in predicting cruise passengers behavioral intentions. *Journal of Travel Research*, 42:397-40.

Place, M & Street, B. 2012. Submission on national intervention in financially distressed provincial governments. Financial and Fiscal Commission. Briefing on the S100 Intervention. From: www.ffc.co.za/docman-menu.../commission-submissions/...submission...2012.../file (Accessed 30 January 2017)

Rantanen, J. 1994. Global strategy on occupational health for all: The way to health at work. From: <http://.shoint/och/Ochweb/OSpages/Oshdocuments/Globalstrategy/Globalstrategy.pdf> (Accessed 17 September 2016)

Rao, KD, Stierman, E, Bhatnagar, A, Gupta, G & Gaffar, A. 2013. As good as physicians: patient perceptions of physicians and non-physician clinicians in rural primary health centers in India. *Global Health: Science and Practice*, 1(3):397-406.

Robinson, BE, Mairs, K, Glenny, C & Stolee, P. 2012. An Evidence-Based Guideline for the Frequency of Optometric Eye. *Primary Health Care*, 2:4.

Rutitis, D, Batraga, A, Muizniece, L & Ritovs, K. 2012. Management of corporate identity dimensions in the health care. *Social and Behavioral Sciences*, 58:995-1003

Sacharowitz, HS. 2005. Visual impairment in South Africa: Achievements and challenges. *African Vision and Eye Health*, 64(4):139-149.

Savur, S. 2011. The Perceptions Regarding Refractive Errors and Their Psychosocial Impact on Youth in Dakshina Kannada. *Journal of Clinical and Diagnostic Research*, 5(4):746-748.

Schriver, B, Meagley, K, Norris, S, Geary, R & Stein, AD. 2014. Young people's perceptions of youth-oriented health services in urban Soweto, South Africa: a qualitative investigation. *BMC Health Services Research*, 14(1):625.

Scott, AW, Bressler, NM, Ffolke, S, Wittenborn, JS & Jorkasky, J, 2016. Public attitudes about eye and vision health. *JAMA Ophthalmology*, 134(10):1111-1118.

Shickle, D & Griffin, M. 2014. Why don't older adults in England go to have their eyes examined? *Ophthalmic & Physiological Optics*, 34(1)38-45

Slappendel, C. 1995. Dominant theories of work-related injury causation. *Health and Safety in New Zealand Workplaces Palmerston North: Dunmore*, 213-48.

Snellingen, T, Shrestha, BR, Gharti, MP, Shrestha, JK, Upadhyay, MP & Pokhrel, RP. 1998. Socioeconomic barriers to cataract surgery in Nepal: The South Asian cataract management study. *British Journal of Ophthalmology*, 82(12):1424-1428.

South African Government Online. [s.a.]. South African Health infrastructure. From <http://health#infrastructure.htm> (Accessed 8 September 2016)

South African Nursing Council. 2014. Provincial distribution of nursing manpower versus the population of the republic of South Africa. From: <http://www.sanc.co.za/stats.htm>. (Accessed 8 September 2016)

Stapleton, F, Stahl, U & Golebiowski, B. 2011. Patients knowledge about glaucoma and their utilisation of eye care. *American Academy of Optometry*, 110127.

Starfield, B. 2007. Global health, equity, and primary care. *The Journal of the American Board of Family Medicine*, 20(6):511-513.

Tajunisah, I, Wong, PS, Tan, LT, Rokiah, P & Reddy, SC. 2011. Awareness of eye complications and prevalence of retinopathy in the first visit to eye clinic among type 2 diabetic patients. *International Journal of Ophthalmology*, 4(5):519.

Taylor-Powell, E. 1998. Sampling. University of Wisconsin-Extension, Cooperative Extension. From: http://cf.uwex.edu/ces/pubs/pdf/G3658_PDF (Accessed 12 March 2015)

Tuller, DM, Bangsberg, DR., Senkung, J, Ware, NC, Emenyonu, N & Werser, SJ. 2010. Transport cost impedes sustained adherence and access to HAART in clinic population in south western Uganda: A quantitative study. *AIDS and Behavior*, 14(4):778-784

Van Vuuren, T., Roberts-Lombard, M. and Van Tonder, E., 2012. The relationship between selected variables and customer loyalty within an optometric practice environment. *Acta Commercii*, 12(1):94-106.

Vela, C, Samson, E, Zunzunegui, MV, Haddad, S, Aubin, MJ & Freeman, EE. 2012. Eye care utilization by older adults in low, middle, and high income countries. *BMC Ophthalmology*, 12:5

Vision 2020 e-resource. 2008. Eye care barriers. From <http://www.v.2020eresources.org/index.aspx> (Accessed 21 October 2016)

Wagner, D & Bear, M. 2009. Patient satisfaction with nursing care: a concept analysis within a nursing framework. *Journal of Advanced Nursing*, 65(3):692–701.

Wamala, S, Merlo, J, Bostrom, G & Hogsterdt, C. 2007. Perceived discrimination, socioeconomic disadvantage and refraining from seeking medical treatment in Sweden. *Journal of Epidemiology Community Health*, 61:409-415

Wang, Y, Hunt, K, Nazareth, I, Freemantle, N & Petersen, I. 2013. Do men consult less than women? An analysis of routinely collected UK general practice data. *BMJ Open*, 3:1–7

Wang, YS, Wu, SC, Lin, HH & Wang, YY. 2011. The relationship of service failure severity, service recovery justice and perceived switching costs with customer loyalty in the context of e-tailing. *International Journal of Information Management*, 31(4):350-359.

WHO. 2013. Universal eye health: a global action plan 2014-2019. WHO Library Cataloguing-in-Publication Data. From: https://www.wpro.who.int/blindness/AP2014_19_English.pdf (Accessed 15 March 2015)

Wong, ST & Regan, S. 2009. Patient perspectives on primary health care in rural communities: effects of geography on access, continuity and efficiency. *Rural and Remote Health*, 9:1142

Wooldridge, M. 2016. Competitive attitude in healthcare. From: <http://www.lockonmedicalliabilityinsurance.com/positive-attitude-in-healthcare/htm> (Accessed 9 September 2016)

World Health Organization, 2006. The world health report: 2006: working together for health. From: https://www.who.int/whr/2006/06_chap1_en.pdf (Accessed 05 April 2015)

World Health Organization, 2013. Global action plan for the prevention and control of non-communicable diseases 2013-2020.

Yang, Y., 2008. Social inequalities in happiness in the United States, 1972 to 2004: An age-period-cohort analysis. *American Sociological Review*, 73(2):204-226.

Zhang, X, Saaddine, JB, Lee, PP, Grabowski, DC, Kanjilal, S, Duenas, MR & Narayan, KV. 2007. Eye care in the United States: do we deliver to high-risk people who can benefit most from it? *Archives of Ophthalmology*, 125(3):411-418.

Appendix 1:

QUESTIONNAIRE

I am Makgoba Lerato Mochaedi John, master of public health student through University of Limpopo. My research is to determine the perceptions and attitudes of healthcare workers towards hospital optometry services at Zebediela Hospital.

All information is confidential and will be used for the purpose of the research which will be submitted as partial fulfilment of the degree.

Your full honesty and cooperation is highly appreciated.

Section A

Personal:

This section is to determine your personal status.

Mark with an **X** in the appropriate numbered section adjacent to your answer

1. Age:

20-30	1
31-40	2
41-50	3
51-60	4
61-70	5
71 and above	6

2. Education:

Diploma	1
Bachelors	2
Masters	3
Doctorate	4

3. Gender:

Male	1
Female	2

4. Marital status:

Single, never married	1
Married	2
Widowed	3
Divorced	4
Separated	5
Cohabiting	6

5. Employment Status in:

Nursing staff	1
Dental staff	2
Allied staff including Psychologist and Pharmacy staff	3
Medical staff	4

6. How many years have you been at your current profession?

0-5	1
6-10	2
11-15	3
16-20	4
21-25	5
26 and above	6

7. Presently employed at a

Hospital	1
PHC Clinic	2

8. How many years have you been employed at your present institution?

0-5	1
6-10	2
11-15	3
16-20	4
21-25	5
26 and above	6

Section B

Attitude

This section is to determine the effect the optometry services in Zebediela hospital has on you.

State whether you agree, disagree or neutral by marking with an **X** in the adjacent section next to the following statements

	Statements (Feelings)	Agree	Neutral	Disagree
9	I feel free to consult at the Zebediela hospital optometry department	1	2	3
10	I am confident about the services offered in the Zebediela optometry department	1	2	3
11	I am confident about the general services offered in Zebediela hospital	1	2	3
12	I feel that the service offered at Zebediela hospital is adequate	1	2	3
13	I feel the staff in the Zebediela optometry are approachable	1	2	3
14	I feel good that the optometry service is available at Zebediela Hospital	1	2	3
15	I feel free that my family members consult at Zebediela hospital	1	2	3
16	I feel free that my family members consult in the Zebediela hospital optometry department	1	2	3
17	I like the spectacles frames provided at the Zebediela optometry department	1	2	3

Section C

Perceptions

This section is to determine your thoughts on Zebediela optometry services.

State whether you agree, disagree or neutral by marking with an **X** in the adjacent section next to the following statements

	Statement (Thoughts)	Agree	Neutral	Disagree
18	I think everyone must have their eye tested by an optometrist	1	2	3
19	I trust the optometry staff in Zebediela hospital optometry department	1	2	3
20	I think the time taken to receive the prescribed spectacle is reasonable in Zebediela hospital optometry department	1	2	3
21	I think I need more information on optometry services provided at Zebediela hospital	1	2	3
22	I think patients are aware of all services provided in the hospital	1	2	3
23	I think it is advisable to consult at Zebediela optometry department for my eye care needs	1	2	3
24	I think the Zebediela optometry department is well staffed	1	2	3
25	I think the Zebediela optometry department in is adequately equipped	1	2	3

26	I think the infrastructure of the Zebediela optometry department is appropriate for the service	1	2	3
27	I think that the Zebediela optometry department has good corporate image	1	2	3
28	I think that the Zebediela optometry department provide good quality assistive devices (spectacles)	1	2	3
29	I trust private optometry service practitioners than Zebediela optometry practitioners	1	2	3
30	I think that private optometry service practitioners are more efficient than public hospital optometry service practitioners	1	2	3
31	I think that the private optometry service practitioners offers more services than public hospital optometry services	1	2	3
32	I think patients have knowledge of the services of the Zebediela optometry department	1	2	3

Appendix 2:
REQUEST LETTER TO COLLECT DATA

P O BOX 88
Seshego
0742

Head of Department
Department of Health
Limpopo Province
Polokwane
0700

Re: Application to conduct research study

I am currently studying for Master of Public Health degree with University of Limpopo. As a result, I am expected to conduct a research study as a requirement for the degree. I therefore request your permission to conduct this study in Zebediela sub district (Capricorn district)

The topic for my research is: **Perceptions and attitudes of healthcare workers towards optometry services in Zebediela, Limpopo province, South Africa.**

This is a quantitative, descriptive study as it involves the use of structured questionnaires to collect data to describe the perceptions and attitudes of healthcare workers towards public hospital optometry services.

Thanking you in anticipation.

Yours in service

Makgoba Lerato John Mochaedi

Chief optometrist

Appendix 3:

CONSENT FORM

PROJECT TITLE: Perceptions and attitudes of healthcare workers towards optometry services in Zebediela, Limpopo province, South Africa

PROJECT LEADER: LMJ Makgoba

SUPERVISOR: Dr. S. F Matlala

I..... hereby voluntarily consent to participate in the following project:

Perceptions and attitudes of healthcare workers towards optometry services in Zebediela, Limpopo province, South Africa

I realise that:

1. The study deals with Perceptions and attitudes of healthcare workers towards optometry services
2. The procedure or treatment envisaged may hold some risk for me that cannot be foreseen at this stage.
3. The Ethics Committee has approved that individuals may be approached to participate in the study.
4. The research project, i.e. the extent, aims and methods of the research, has been explained to me.
5. The project sets out the risks that can be reasonably expected as well as possible discomfort for persons participating in the research, an explanation of the anticipated advantages for myself or others that are reasonably expected from the research and alternative procedures that may be to my advantage.
6. I will be informed of any new information that may become available during the research that may influence my willingness to continue my participation.
7. Access to the records that pertain to my participation in the study will be restricted to persons directly involved in the research.

8. Any questions that I may have regarding the research, or related matters, will be answered by the researcher/s.

If I have any questions about, or problems regarding the study, or experience any undesirable effects, I may contact a member of the research team or Ms Noko Shai-Ragoboya.

10. Participation in this research is voluntary and I can withdraw my participation at any stage.

11. If any medical problem is identified at any stage during the research, or when I am vetted for participation, such condition will be discussed with me in confidence by a qualified person and/or I will be referred to my doctor.

12. I indemnify the University of Limpopo and all persons involved with the above project from any liability that may arise from my participation in the above project or that may be related to it, for whatever reasons, including negligence on the part of mentioned persons.

SIGNATURE OF RESEARCHED PERSON

SIGNATURE OF WITNESS

.....

.....

SIGNATURE OF PERSON THAT INFORMED

THE RESEARCHED PERSON:

SIGNATURE OF PARENT/GUARDIAN:

Signed at _____ this ____ day of _____ 20__

Appendix 4:

CLEARANCE CERTIFICATE FROM TURFLOOP ETHICS COMMITTEE



University of Limpopo
Department of Research Administration and Development
Private Bag X1106, Sovenga, 0727, South Africa
Tel: (015) 268 2212, Fax: (015) 268 2306, Email:noko.monene@ul.ac.za

**TURFLOOP RESEARCH ETHICS
COMMITTEE CLEARANCE CERTIFICATE**

MEETING: 06 July 2015
PROJECT NUMBER: TREC/63/2015: PG

PROJECT:

Title: Perceptions and attitudes of Healthcare Workers towards
Optometry services in Zebediela, Limpopo Province, South Africa
Researcher: Mr LMJ Makgoba
Supervisor: Mr SF Matlala
Co-Supervisor: Prof L Skaal
Department: Medical Sciences, Public Health and Health Promotion
School: Health Sciences
Degree: Masters in Public Health


PROKTA MASHEGO
CHAIRPERSON: TURFLOOP RESEARCH ETHICS COMMITTEE

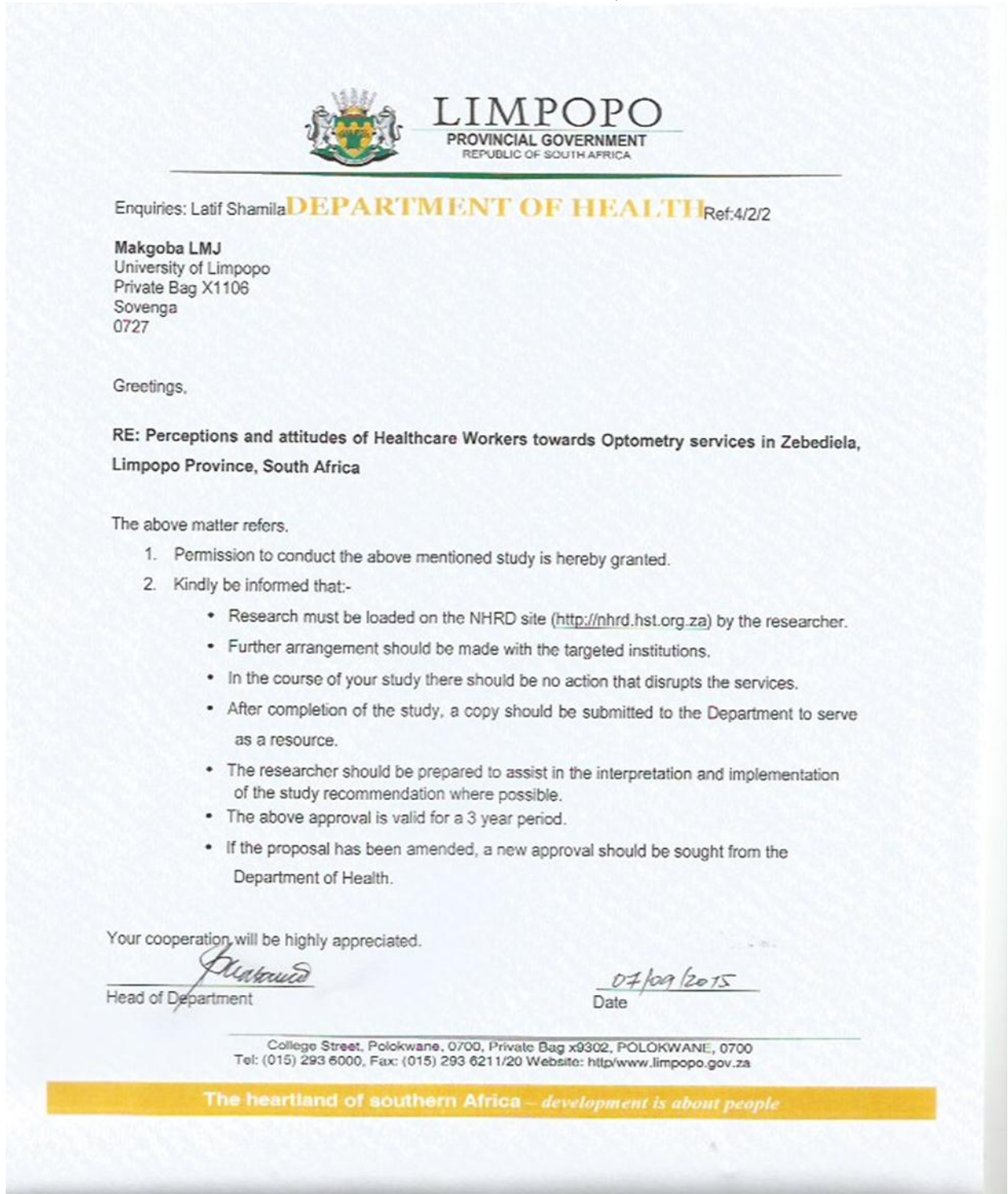
The Turfloop Research Ethics Committee (TREC) is registered with the National Health Research Ethics Council, Registration Number: REC-0310111-031

Note:

- i) Should any departure be contemplated from the research procedure as approved, the researcher(s) must re-submit the protocol to the committee.
- ii) The budget for the research will be considered separately from the protocol.
PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES.


Appendix 5:

PERMISSION LETTER FROM DEPARTMENT OF HEALTH, LIMPOPO PROVINCE



Appendix 6:


PERMISSION LETTER FROM ZEBEDIELA HOSPITAL


**LIMPOPO**
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA
DEPARTMENT OF HEALTH AND SOCIAL DEVELOPMENT

TEL: (015) 662 0787
0173/0108

ZEBEDIELA HOSPITAL

FAX: (015) 662

 PRIVATE BAG X342
GOMPIES
0631


AIDS Helpline 0800-0129-22

Date: 04 NOVEMBER 2015
Ref: 04/11/15 /1

Enq: DR T P M Masemola

From: The Chief Executive Officer
Zebediela Hospital


To: Makgoba L M J
P O BOX 88
SESHEGO, 0742

REQUEST FOR PERMISSION TO CONDUCT RESEARCH: YOURSELF

1. Your application letter of 03 November 2015, on the above matter, hereto refers.
2. I am glad to confirm the granting of the permission to do the research at Zebediela hospital as requested.
3. And do, hereby, further confirm, our conditions , as follows:
 - 3.1 No action should disrupt service delivery at Zebediela hospital and its subsidiary service points,
 - 3.2 Adherence to the full research ethics, including obtaining of consent from the targeted participants.

Wishing you well in your study

Yours in Health Service Delivery


CHIEF EXERCUTIVE OFFICER

Appendix 7:

PERMISSION LETTER FROM PRIMARY HEALTH CARE, LEPELLE-NKUMPI SUB-DISTRICT

DEPARTMENT OF HEALTH

ENQ: PELA A
CELL: 073 1463 287
EMAIL: lepellenkumpi@gmail.com

CAPRICORN DISTRICT
LEPELLE NKUMPI PHC
LEBOWAKGOMO
RAKGOATHA- BYLDRIFT LOCAL AREA
17th November 2015.

FROM: Acting Assistant Manager
Lepelle Nkumpi PHC

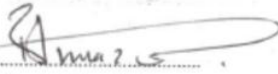
TO: Makgoba L.M.J
P.O BOX 88
Seshego
0742

REQUEST FOR PERMISSION TO CONDUCT RESEARCH: YOURSELF

1. Your application letter of 03rd November 2015, on above matter, hereto refer.
2. I am glad to confirm the granting of permission to do research at Rakgoatha-Byldrif Local Area Clinics as requested.
3. And do, hereby, further confirm, our conditions, as follows:
 - 3.1 No action should disrupt service delivery at Rakgotha-Byldrif Local Area Clinics and its subsidiary service points,
 - 3.2 Adherence to the full research ethics, including obtaining of consent from the targeted participants.

Wishing you well in your study.

Yours in Health Service Delivery


Acting Assistant Manager

DEPARTMENT OF HEALTH
AND SOCIAL DEVELOPMENT

RECEIVED

2015 -11- 17

LEPELLE NKUMPI MUNICIPALITY
MPHAHLELE LOCAL AREA

TEL: 015 633 7657

Appendix 8:

CERTIFICATE FROM LANGUAGE EDITOR

Fax: 01526828683174
Tel. 0152862684
Cell: 0822198060
Rammalaj@ul.ac.za

Dr J R Rammala
440B Mankweng
Box 4019
Sovenga
0727

To whom it may concern

4 November 2016

Confirmation letter: Makgoba LMJ (9555151)

This memo serves to confirm that I edited a dissertation by the above-mentioned candidate entitled: **Perceptions and attitudes of healthcare workers towards optometry services in Zebediela, Limpopo province, South Africa.**


In the process of editing this document specifically I realized some inconsistencies in the referencing style, both in-text and on the reference list. After verifying the preferred referencing style, I then reworked on the few errors that I spotted. Generally, the language usage was not so bad except a few concordial agreements here and there.

The first document send is marked with track changes indicating what I changed and what I suggested should be changed. The document was not well-written with regard to the referencing style.

I then accepted the track changes on the second document which I send for the candidate to submit for assessment. There were some challenges with hanging subheadings and the student was advised to check them and they sometime occur because of the use of different versions of Microsoft word.

I confirm that the document is now readable and clean with regard to language issues and recommend that it can be submitted for assessment.

Thanks

Signed: 

Dr J R Rammala

