

**PATIENT SATISFACTION REGARDING SERVICE DELIVERY AT A HOSPITAL IN  
BOTSWANA**

by

**ZIBO KITSO KHUWA**

**Student Number [REDACTED]**

**MINI-DISSERTATION**

Submitted in partial fulfilment of the requirements for the degree of

**MASTER OF PUBLIC HEALTH**

In the

**FACULTY OF HEALTH SCIENCES  
(School of Health Care Sciences)**

at the

**UNIVERSITY OF LIMPOPO**

**SUPERVISOR: PROF. SF Matlala**

**CO-SUPERVISOR: DR. TS Ntuli**

## TABLE OF CONTENTS

DECLARATION.....	viii
ACKNOWLEDGEMENTS.....	ix
DEDICATION.....	x
DEFINITION OF CONCEPTS.....	xi
LIST OF ABBREVIATIONS.....	xii
ABSTRACT.....	xiii
<b>CHAPTER 1: OVERVIEW OF THE STUDY</b>	
1.1. INTRODUCTION AND BACKGROUND.....	1
1.2. PROBLEM STATEMENT.....	2
1.3. AIM OF THE STUDY.....	4
1.4. OBJECTIVES OF THE STUDY.....	4
1.5. RESEARCH QUESTION.....	4
1.6. LITERATURE REVIEW.....	4
1.7. RESEARCH METHODOLOGY.....	5
1.8. SIGNIFICANCE OF THE STUDY.....	5
1.9. OUTLINE OF CHAPTERS.....	6
1.10. CONCLUSION.....	6
<b>CHAPTER 2: LITERATURE REVIEW</b>	
2.1. INTRODUCTION.....	7
2.2. PATIENT SATISFACTION INTERNATIONALLY.....	7
2.3. PATIENT SATISFACTION IN AFRICA.....	10
2.4. PATIENT SATISFACTION IN BOTSWANA.....	14
2.5. LEGISLATIVE FRAMEWORK ON SERVICE DELIVERY IN BOTSWANA.....	15
2.6. CONCLUSION.....	15
<b>CHAPTER 3: RESEARCH METHODOLOGY</b>	
3.1. INTRODUCTION.....	16
3.2. RESEARCH DESIGN.....	16
3.3. RESEARCH SETTING.....	16
3.4. POPULATION.....	18
3.5. INCLUSION AND EXCLUSION CRITERIA.....	18
3.5.1. Inclusion criteria.....	18
3.5.2. Exclusion criteria.....	18

3.6. SAMPLING .....	18
3.7. DATA COLLECTION .....	19
3.8. DATA ANALYSIS .....	20
3.9. RELIABILITY AND VALIDITY .....	21
3.9.1. Reliability .....	21
3.9.2. Validity .....	21
3.10. BIAS .....	22
3.10.1. Selection bias .....	23
3.10.2. Information bias .....	23
3.11. PILOT STUDY .....	23
3.12. ETHICAL CONSIDERATIONS .....	24
3.12.1. Ethical clearance and permission .....	24
3.12.2. Addressing harm .....	24
3.12.2.1. Addressing psychological and emotional harm .....	25
3.12.2.2. Addressing social harm and economic harm .....	25
3.12.2.3. Protecting participants from Covid 19 .....	25
3.12.3. Anonymity, confidentiality and privacy .....	25
3.12.3.1. Anonymity .....	25
3.12.3.2. Confidentiality .....	25
3.12.3.3. Privacy .....	26
3.12.4. Informed consent .....	26
3.13. CONCLUSION .....	26
<b>CHAPTER 4: PRESENTATION AND INTERPRETATION OF RESULTS</b>	
4.1. INTRODUCTION .....	27
4.2. DEMOGRAPHIC CHARACTERISTICS .....	27
4.3. LEVEL OF PATIENT SATISFACTION REGARDING SERVICE DELIVERY .....	28
4.4. OUTPATIENTS SATISFACTION WITH SERVICE DELIVERY .....	29
4.5. INPATIENTS SATISFACTION WITH SERVICE DELIVERY .....	30
4.6. SOCIODEMOGRAPHICS ASSOCIATION WITH SATISFACTION .....	32
4.7. CONCLUSION .....	33
<b>CHAPTER 5: DISCUSSION AND CONCLUSION</b>	
5.1. INTRODUCTION .....	34

5.2. DEMOGRAPHIC CHARACTERISTICS OF PATIENTS .....	34
5.2.1. Age .....	34
5.2.2. Gender .....	35
5.2.3. Employment Status .....	35
5.2.4. Level of education .....	35
5.3. LEVEL OF SATISFACTION OF THE PARTICIPANTS .....	36
5.3.1 Outpatient Satisfaction Level .....	36
5.3.2 Inpatients Satisfaction Level .....	38
5.4. ASSOCIATION BETWEEN DEMOGRAPHICS AND LEVEL OF SATISFACTION .....	40
5.5. CONCLUSION .....	41
5.6. RECOMMENDATIONS .....	42
5.7. LIMITATIONS OF THE STUDY .....	43
REFERENCES .....	45

## LIST OF TABLES

Table 4.1: Demographic characteristics of patients.....	28
Table 4.2: Comparison of inpatients' and outpatients' level of satisfaction .....	28
Table 4.3: Individual items for outpatients satisfaction with service delivery.....	30
Table 4.4: Individual items for inpatients satisfaction with service delivery.....	31
Table 4.5: Association between demographic characteristics of the inpatients/ outpatients and level of satisfaction .....	33

## LIST OF FIGURES

Figure 1: Map showing Central district of Botswana locating Palapye.....17

## LIST OF APPENDICES

Appendix 1: ENGLISH QUESTIONNAIRE.....	54
Appendix 2: TSWANA QUESTIONNAIRE.....	57
Appendix 3: ETHICAL CLEARANCE CERTIFICATE.....	61
Appendix 4: LETTER REQUESTING PERMISSION FROM MINISTRY OF HEALTH.....	62
Appendix 5: PERMISSION FROM MINISTRY OF HEALTH.....	63
Appendix 6: LETTER REQUESTING PERMISSION FROM THE HOSPITAL.....	65
Appendix 7: PERMISSION FROM THE HOSPITAL .....	66
Appendix 8: ENGLISH INFORMED CONSENT.....	67
Appendix 9: SETSWANA INFORMED CONSENT.....	69
Appendix 10: PROOF OF EDITING.....	71

## DECLARATION

I, declare that **PATIENT SATISFACTION REGARDING SERVICE DELIVERY AT A HOSPITAL IN BOTSWANA** is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references and that this work has not been submitted for any degree at any other institution.

.....  
Zibo Kitso Khuwa

.....  
Date



## ACKNOWLEDGEMENTS

I would like to extend my sincere gratitude to the following people

- My supervisor Prof. S.F. Matlala for his immense direction, motivation and support.
- My co-supervisor Dr. T.S. Ntuli for his encouragement and support.
- The patients at Palapye Primary Hospital who participated in the study.
- The Ministry of Health and Wellness and the management of the hospital for giving me the permission to undertake the study.
- My sister Nkeletsang Khuwa for the support, patience, love and understanding.
- All the other people who have supported in my journey of studying.

## DEDICATION

I dedicate this piece of work to my late mother, Chopenya Khuwa, and my sister, Nkeletsang Khuwa, who worked hard for me to get the best out of me in my studies. They made sure that I have the environment suitable for my studies and be able to know the value of education. I also dedicate this to my daughter, Kudakwashe, and this serves as a motivation for her to know the value of education. Also, this is dedicated to my siblings for the support.

## DEFINITION OF CONCEPTS

**Health care professional:** A health care professional is a person who has been trained to deliver care and services to the sick people, either directly as doctors and nurses, or indirectly as laboratory technicians, for example (Joseph & Joseph, 2016). In this study, the term health care professional refers to doctors and nurses who have been trained to deliver health care services working at the Palapye Primary Hospital.

**Patient Satisfaction:** Patient satisfaction is the opinions, reflections, emotions, feelings, views, perceptions and overall evaluation given by the patient of the health care services delivered to them (Adhikary, Shawon, Ali, Shamsuzzaman, Ahmed, Shackelford, Woldeab, Alam, Lim, Levine, Gakidou & Uddin, 2018). In this study, patient satisfaction refers to the patient's opinions, reflections, feelings, views, perceptions and overall evaluation of health care services provided by doctors and nurses at the Palapye Primary Hospital.

**Shortage:** Shortage, in this context, is an insufficiency of health care professionals, medicines, vaccines and health products in the health system that makes it difficult for the system to meet the needs of public health (World Health Organization, 2016). In this study, shortage refers to an insufficiency of the number of doctors and nurses working at the Palapye Primary Hospital.

**Service delivery:** Service delivery is the provision of health interventions by health professions in order for a population to receive continuous health promotion, disease prevention, diagnosis, treatment, disease management, rehabilitation and palliative care services (World Health Organization, 2019). In this study, service delivery refers to the health interventions provided to the population by the doctors and nurses working at the Palapye Primary Hospital.

## LIST OF ABBREVIATIONS

AIDS:	Acquired Immunodeficiency Syndrome
A&E:	Accident and Emergency
IDCC:	Infectious Diseases Control Centre
HIV:	Human Immunodeficiency Virus
MCH:	Maternal Child Health
MoHW:	Ministry of Health and Wellness
OPD:	Outpatient Department
SRH:	Sexual Reproductive Health
TREC:	Turfloop Research Ethics Committee
WHO:	World Health Organization

## ABSTRACT

**Background:** Patient satisfaction is an important means of measuring the effectiveness of health care delivery and medical care. Patient satisfaction provides a picture of the extent to which the general health care needs of the patient provided by health care professionals are met to the satisfaction of the patient. Administration of patient satisfaction surveys provide an opportunity to identify and resolve potential problems before they become serious. Enhancing quality of service delivery in public health facilities is a prerequisite for the increased utilisation and sustainability of health care services to the population. The aim of the study was to investigate the level of patient satisfaction regarding service delivery provided by the doctors and nurses at a hospital in Botswana.

**Purpose:** The study's aim was to investigate the level of patient satisfaction regarding service delivery at a hospital in Botswana.

**Methods:** A quantitative approach using a self-administered structured questionnaire to collect data regarding patient satisfaction regarding service delivery at hospital was used. A consecutive sampling technique was used to select patients who fulfilled the study's inclusion criteria. A sample size of 360 patients was required for the study, which was calculated based on the Taro Yamane formula. Data was analysed using SPSS version V.21.0.

**Results:** The mean age of the outpatients was 38.5 (SD  $\pm$ 15.6) years while, for the inpatients, the mean age was 33.3 (SD  $\pm$ 12.4) years. The greater proportion of respondents in both groups was females. Nearly half (47% ) of the outpatients were employed, whereas more than half (53% ) of the inpatients were unemployed. The majority of the participants had a low level of education. The mean satisfaction level was 58.9 (SD  $\pm$ 7.9) for outpatients, while for inpatients, the mean satisfaction level was 70.3 (SD  $\pm$ 12.5). A large proportion (65% ) of the outpatients were satisfied compared to the inpatients (54% ), however, the results were not statistically significant ( $p > 0.05$ ). There was no statistically significant relationship between the age, gender, employment status, level of education of the outpatients and their level of satisfaction. For inpatient variables, age, gender, and level of education were not associated with level of satisfaction ( $p > 0.05$ ).

**Conclusion:** In conclusion, regardless of the fact that certain aspects of care provided at this hospital were unsatisfactory, the results of the present study revealed that, overall, more than half of the patients were satisfied with the inpatients and outpatient aspects of the

care they were provided.

**Keywords:** Patient satisfaction, service delivery, health care professionals, Botswana, hospital.

# CHAPTER 1

## OVERVIEW OF THE STUDY

### 1.1. INTRODUCTION AND BACKGROUND

Patient satisfaction is highly respected as a measure of health care in hospitals worldwide and is used to improve the quality of health service delivery. In the past, the outcome of the patient's physical condition was used to evaluate the quality of service delivery (Wei, Wang, Yang & Yang, 2015). Patient satisfaction provides patient's reflections on, and perceptions of, health service experience. Assessing patient satisfaction helps to determine the quality of health care delivery and health system responsiveness. Measuring patient satisfaction also helps to improve the quality of service delivery; to prioritise capacity building needs; and to improve the distribution of resources (Adhikary, Shawon, Ali, Shamsuzzaman, Ahmed, Shackelford, Woldeab, Alam, Lim, Levine, Gakidou & Uddin, 2018).

Good quality health care services play a vital role in the development and improvement of service delivery. Patients who are satisfied with the health services provided at the health facility have been shown to comply more readily with medical treatment protocols and are more likely to recommend clinical care to others. In order for a patient to be fully satisfied with the health services requires fulfilling expectations, needs and desires with regards to health care (Nguyen, Nguyen, Phan, Eeuwijk & Fink, 2020).

In Bangladesh, patient satisfaction is studied by focusing on family planning services, maternal and neonatal health. Their key factors with respect to patient satisfaction are waiting time and the attitudes of health care professionals (Adhikary et al, 2018). In Vietnam, most studies on patient satisfaction are focused on adult patients in general hospitals. Results from studies in general hospitals suggest waiting time, attitude and communication of health care professionals as key factors in patient satisfaction (Nguyen et al, 2020).

Patient satisfaction surveys are administered in Nigeria, where the key factors include cleanliness of facility, comfort of waiting area, waiting time, attitude of staff, confidence in health care provider, perception of effective treatment, availability of drugs, cost of drugs and services (Akinyika, Oluwole & Odusanya, 2019). In Zambia, patient satisfaction surveys are undertaken to determine patient satisfaction with Human Immunodeficiency Virus (HIV)

care providers in public health facilities. The study was undertaken on patients who were lost to follow-up from HIV care and treatment. HIV care providers in public health facilities in Lusaka undertake the survey to help improve the health service, the health system benefitted from the routine measuring of patient satisfaction and consider the process as a potential driver of retention of patients in the health care system (Mukamba, Chilyabanyama, Beres, Simbeza, Sikombe, Padian, Holmes, Sikazwe, Geng & Schwartz, 2019). In South Africa, patient satisfaction is a crucial quality assessment measure for the delivery of health care services. Simple random sampling is done in health facilities, on the day that data is collected, using questionnaires. The questionnaire is based on the following factors: the condition of the facility building; hygiene; availability of chairs to sit on; and the treatment patients receive in the facility (Malangu & Westhuisen, 2017).

Botswana public health facilities experience a shortage of health care professionals and this situation negatively affects service delivery. Effective delivery of health care services in many developing countries is limited by the high burdens of disease, ineffective health systems and shortage of sufficient skilled and motivated health care professionals (Nkomazana, Mash & Phaladze, 2015). A prospective cohort study of safety and patient satisfaction with voluntary medical male circumcision is being conducted in Botswana. In Botswana, the health care team actively assess circumcision-associated adverse events by prospectively following a cohort of men undergoing voluntary medical male circumcision at the two public clinics in the south eastern region of the country (Wirth, Semo, Spees, Ntsuape, Barnhart & Ledikwe, 2017).

## **1.2. PROBLEM STATEMENT**

Globally, and particularly in developing countries, ongoing deficiencies in health systems negatively affect the service delivery necessary for the attainment of good health outcomes of populations (Seitio-Kgokgwe, Gauld, Hill & Barnet, 2016). There has been a critical shortage of health care professionals in Botswana public health facilities; the average vacancy rate in 2007 was 5% in primary health care and 13% secondary health care. The vacancy rate was projected to increase to 53% and 43% in primary and secondary health care in 2016, respectively (Nkomazana, 2017).

The shortage of health care professionals in the country is hampering the efforts by the country to provide universal primary health care. The situation is made to look worse by



negative work environments, skill mix imbalances and weak knowledge base. The government has a high per capita expenditure on health, despite the shortage of health care professionals, which is more critical in primary health care and in rural areas as a result of multiple complex factors (Nkomazana, Mash, Shaibu & Phaladze, 2015). In August 2019, the country's health minister reported to parliament on the shortage of health care professionals in Botswana. The public health sector is constrained by shortage of health care professionals. The situation is further complicated by limited positions into which health care professionals can be recruited (Swanka, 2019).

Inadequate capacity in the country to train and retain health care professionals in the public sector makes the picture more complicated. The shortage of health care professionals is further complicated by unequal geographic distribution (Farahani, Price, El-Halabi, Mlaudzi, Keapoletswe & Lebelonyane, 2016). Despite the gains made by the country in the fight against HIV/ Acquired Immunodeficiency Syndrome (AIDS), the health system faces the challenge of a shortage of doctors (Peluso, Tapela, Langeveldt, Williams, Mochankana, Motseosi, Ricci, Rodman, Haverkamp, Maoto, Lockett, Prozesky, Nkomazana & Barak, 2018). Palapye Primary Hospital is experiencing a critical shortage of health care professionals, which has led to increased complaints from the patients. The management of this facility has since admitted to the critical shortage of health care professionals and constantly write to the health ministry requesting additional doctors and nurses.

Ontebetse (2020) reported that the shortage of doctors and nurses affects service delivery negatively. Patients are not assisted on time; they spend a long time in the facility, even staying overnight to get assistance; and some patients run out of patience, leaving without being assisted. The researcher noticed the situation led to poor service delivery, which may lead to an increase in the number of complaints. As a result of the shortage of health care professionals, there is increased workload at the facility, since the facility also provides services to people from the neighbouring villagers. The hospital administers routine patients' satisfaction surveys, however, the questionnaires used and the way data is analysed is not documented. As a result, the researcher decided to undertake research on the level of patient satisfaction at this facility, where he is based and where he can access records of the current staff to patient ratio.

### **1.3. AIM OF THE STUDY**

The aim of the study was to investigate the level of patient satisfaction regarding service delivery at a hospital in Botswana.

### **1.4. OBJECTIVES OF THE STUDY**

The objectives of the study were:

- To determine the sociodemographic characteristics of patients seen or utilising a hospital in Botswana;
- To compare the level of satisfaction between in- and outpatients seen at, or who utilise, a hospital in Botswana; and,
- To establish the association between sociodemographic characteristics and level of patient satisfaction regarding service delivery at a hospital in Botswana.

### **1.5. RESEARCH QUESTION**

What is the level of patient satisfaction regarding service delivery at a hospital in Botswana?

### **1.6. LITERATURE REVIEW**

A literature review is the description and summary of scholarly articles and any other sources relevant to a particular area of research. A review of the literature provides a critical evaluation of the research problem being investigated and gives the researcher an overview of sources that are explored during the research of a certain topic. A literature review helps the researcher to identify gaps in the existing literature and to assist the researcher to avoid repeating what has already been studied. A literature review also helps the researcher to decide on the best methodology to guide the study and, therefore, the quality data that will be collected (McCombes, 2019).

A literature review is the summary and synthesis of existing scholarly research on a particular study. A literature review is a form academic writing used in the sciences, social science and humanities. Literature reviews organise and present existing research. Literature reviews are more than a list of sources consulted as they summarise and critically evaluate those sources. The importance of literature is to help the researcher justify the research that is about to be undertaken and to give the researcher a chance to demonstrate expertise in

the topic being researched (Valdes, 2020). A detailed literature review is provided in Chapter 2.

### **1.7. RESEARCH METHODOLOGY**

A quantitative cross-sectional design was used to guide this research. Cross-sectional design is used to collect data from the population of interest at one point in time. This research approach is described as taking a snapshot of the population the researcher is going to approach in order to gather data. The snapshot may be repeated periodically, however, in a repeated cross-sectional survey, participants at one point in time are not deliberately sampled again, although participants in the survey may be sampled during the subsequent survey. There are patients who come on the facility on a regular basis and, as such, they were likely to be sampled more than once (Setia, 2016).

Quantitative research methodology describes and measures level of occurrences of phenomena based on numbers and calculations. The questions 'how many' and 'how often' are used in this method. Data collected is based on, and expressed in, numbers. The method is about collecting numerical data and exhibiting a view of the relationship between theory and research as deductive. Quantitative research also examines relationships between numerically measured variables with application of statistical techniques (Bryman, 2015). The research methodology employed in this study will be discussed in detail in Chapter 3.

### **1.8. SIGNIFICANCE OF THE STUDY**

The outcomes of this study may help the government of Botswana to improve planning when allocating health care professionals. It may encourage the government to invest more in health, especially in the training of health care professionals on customer care. The outcomes of the study may help the government to improve the conditions of service in the public health sector, which will assist in the retention and motivation of health care professionals. Retention and motivation of health care professionals improves the quality of service delivery and patient satisfaction. The study's outcomes may also help the health system identify the areas of service delivery that need to be improved.

### **1.9. OUTLINE OF CHAPTERS**

#### **Chapter 1**

This chapter comprises the study's introduction, background and the research framework.

## Chapter 2

This chapter covers the literature review in the context of the research undertaken.

## Chapter 3

This chapter describes the research methodology and the study design used.

## Chapter 4

This chapter discusses the findings in relation to the literature control.

## Chapter 5

This chapter provides a summary of the results, limitations, recommendations and conclusion in the context of the aim and objectives of the study.

## **1. 10. CONCLUSION**

In Chapter 1, the researcher provided an introduction to, and background of, the study, the research problem, research aim, research question and the research objectives. In this chapter, the researcher further introduced the literature review, research methodology and discussed significance of the study. In Chapter 2, the researcher will present a detailed review of the literature.

## CHAPTER 2 LITERATURE REVIEW

### 2.1. INTRODUCTION

In the previous chapter, the researcher provided an overview of the study, with focus on the introduction, research problem, literature review, purpose of the study, research question, objectives, methodology, ethical considerations and significance of the study. In this chapter, the researcher provides a detailed review of the literature about patient satisfaction studies that were conducted internationally; on the African continent, in Ethiopia, Nigeria, and South Africa; and nationally, in Botswana. Literature was guided by the objectives of the study.

### 2.2. PATIENT SATISFACTION INTERNATIONALLY

In 2018 a study was done on factors associated with patient satisfaction in the outpatient department of the Suva sub-divisional health centre in Fiji. The majority of the participants perceived doctors' communication as fair (53%), followed by good (45%) and poor (0.8%). The majority of the participants had partial trust in doctors (61.1%), followed by full trust (38.4%) and lack of trust (0.5%). More than two-thirds (69.3%) of the participants were fully satisfied with the consultation, 28.3% were partially satisfied, while 2.4% were not satisfied with their consultation (Chandra, Ward & Mohammadnezhad, 2019). These findings mean that more than half of the patients were satisfied with aspects of service delivery in the outpatient department of the health centre.

Participants in the study in Fiji were selected using systematic random sampling. Every third patient waiting to be seen was approached and those interested were given an information sheet to read. Quantitative studies involve large sample sizes and this sampling technique may lead to delayed collection of data as there is chance that every third patient is not willing to take part in the study. Consecutive sampling would have been a more suitable for the study because every patient who met the inclusion criteria could have been approached to take part in the study.

A study was done to compare patients' satisfaction with different levels of hospitals in Beijing, China. The purpose of the study was to compare patients' satisfaction with different levels of hospitals in the city and to ascertain reasons for patients preferring to access high

level hospitals. The study showed that the hospital type and level of understanding of medical alliance policy were the factors associated with patients' satisfaction. The study also showed that there was higher patient satisfaction with cooperative hospitals than with core hospitals; however, the financial investment by the Chinese government is lower in cooperative hospitals compared to core hospitals. In cooperative hospitals the treatment outcomes are better with less complex diseases, so patient satisfaction is higher. The service attitudes in cooperative hospitals is good as doctors have more time to diagnose diseases and deal with the concerns of patients.

In core hospitals, the reasons of dissatisfaction include long waiting times for medical treatment and inpatients beds; difficulty in scheduling for appointments; and limited time for patients to communicate with the doctors. Diseases that are treated at core hospitals are generally worse than those treated in cooperative hospitals and the treatment effects are not always satisfactory. Most Chinese patients are willing to choose core hospitals over cooperative hospitals for medical treatment, which contradicts the patient satisfaction theory. The study also showed that the more patients have knowledge about medical alliance policies, the higher their satisfaction with medical alliance services (Cui, Zuo, Wang, Song, Shi & Meng, 2020).

High financial investment in hospitals do not mean the patients will be satisfied with service delivery. Patients get satisfied with service delivery when doctors have good interpersonal skills and there is reduced waiting time to receive health care services. The study findings revealed the demographic information of participants who accessed health services and it is helpful to know their characteristics. The study would have been more beneficial to research if an association was established between patient demographics and patient satisfaction.

In India, a cross-sectional study on patient satisfaction in the outpatient department of secondary care hospital of Bhopal was undertaken. Patients were computed in order to determine their experiences of the different services provided by the Outpatient Department (OPD) of the medicine department. Patients who had good experiences of the facility showed a higher degree of satisfaction compared to those who had poor experiences. Patients with the highest degree of experience were satisfied with the helpfulness of nurses; the light and ventilation in OPD; and communication from the pharmacist. The patients were dissatisfied with the waiting time for collecting drugs, the number of doctors in the OPD and

the diagnostic facility of the hospital.

Regarding registration services, the large majority of the patients were satisfied with the number of registration staff in the medicine outpatient department. The report indicated that the registration staff were cooperative and had good communication skills. The results of this study showed 66% of patients had good accessibility to medicine. The study found that more than half (62%) of the patients agreed that waiting time for receiving treatment from the doctor was appropriate to them. The majority of the patients were satisfied with number of medical staff available during working hours. The overall satisfaction of patients attending this outpatient facility was 86.67% (Joshi & Joshi, 2017). This means that experiences of patients at the hospital are directly proportional to the level of satisfaction, patients who had good experience while at the health facility were satisfied with most aspects of service delivery. The findings of the study did not include the demographic information of the patients receiving health services at the hospital and so it becomes difficult to establish the gender distribution, age group, employment status and educational level of the participants.

In Macedonia, a cross-sectional study was conducted to investigate the drivers and determinants of inpatient and outpatient satisfaction at a public ambulatory and hospital department within the clinic offering plastic and reconstructive surgery in Skopje. The aim of the study was to assess the level of satisfaction with the management and conditions of the hospital in both groups of patients, namely inpatients and outpatients. More than one-third of the outpatients (35.89%) were very satisfied with the service received at the facility and the majority of inpatients were satisfied (72.5%) with the system for scheduling an examination. The majority (72.43%) of the outpatients and 62% of inpatients were satisfied with the location of the clinic. In general, the majority of the patients from both groups were satisfied with the accessibility of the hospital, with 72.56% of the outpatients very satisfied and 57.38% of inpatients satisfied.

In terms of the conditions for performing a physical examination, 54.78% of patients from both groups reported they were very satisfied, followed by 38.69% of the patients who were satisfied. Only 3.89% of both patient groups reported that they were not satisfied with the service received at the facility. A large majority (72.69%) of all outpatients and more than half (59.02%) of the inpatients were very satisfied with the technical equipment and

medications that are used to perform a physical examination. The majority of the outpatients were very satisfied with the transparency of information in required documents for a physical examination and with toilets hygiene (73.08% and 56.44%, respectively), followed by the majority of the inpatients group who were satisfied with the same criteria (62.84% and 45.17% respectively). There was a statistically significant difference between the two groups of patients, with higher scores recorded among the group of inpatients (Stefanovska, Stefanovska-Petkovska, Bojadziev & Bojadzieva, 2017). The findings mean that majority of the patients (96%) from both groups were satisfied with service delivery at the hospital. The high level of patient satisfaction suggest the hospital provided quality health care service.

The questionnaire used in the study in India was a 5-point Likert scale, which is similar to the questionnaire used in the present study. The questionnaire is able to measure participants' views by measuring the extent to which they agree or disagree with a particular statement. In a 5-point Likert scale, the participants are not forced to agree or disagree to a statement as they are given the option to be neutral.

### **2.3. PATIENT SATISFACTION IN AFRICA**

In the public health facilities of Jigjiga town in Ethiopia, a study was done on determinants of client satisfaction with family planning services. The findings showed that the overall client satisfaction with family planning services among the family planning users of public health facilities of Jigjiga was 41.7%. Factors such as knowledge of family planning, demonstration of use of the method, describing the side effects and distance of family planning user's home to the facility were associated with client satisfaction with family planning services (Gebreyesus, 2019). The overall client satisfaction with family planning services among the family planning users was low if they had poor knowledge on family planning, demonstration on the use of the method was not clear and had to travel long distances to the facility.

The study in Ethiopia had a large sample size of 492 family planning users. Large sample size is beneficial to the study as it provided the researcher with more data to work with. A systematic sampling technique was not suitable for this study. Patients who are not willing to take part in the study may cause a change in sampling interval, which lead to bias (Sharma, 2017). Using this sampling technique may have led to a longer time taken to collect data as the researcher may have skipped patients willing to take part in the study. A



consecutive sampling technique would have been a more suitable for the study.

Another study was done in Ethiopia on the level of patient satisfaction with inpatient services and its determinants in a specialised hospital. The majority of the patients were satisfied with the services under patient and health care provider interaction and facility related information. Almost half (47%) of the participants were satisfied with waiting time to get service. More than half (57.3%) were satisfied with official visiting hours of the hospital. More than half (52%) were satisfied with information provided on the services provided by the staff. More than half (55%) were satisfied with measures taken to assure confidentiality and privacy of the patients (Asamrew, Endris & Tadesse, 2020). The findings of these studies mean that more than half of the patients were satisfied with the services they got from the hospital. However, long waiting time to get services remains a challenge in most public hospitals. The study has sociodemographic characteristics and therefore information about the participants is available. The questionnaire used in the study in India was a 5-point Likert scale, which is similar to the questionnaire used in the present study. The other strength of this questionnaire is that participants are given different options to choose and this increase response rate.

In Nigeria, a study was done on satisfaction with the use of public health and peer-led facilities for HIV prevention services by key populations. Key populations refer to female sex workers, men who have sex with men and persons who inject drugs. In both the public sector health facilities and peer-led organisations, the majority of the participants (76.4% in the public sector health facilities and 90.7% in the peer-led organisations) were satisfied with the extent to which service providers listened to their problems. For both the public health facilities and peer-led organisations, a large portion of participants were satisfied with the extent to which the service providers assured them of confidentiality and privacy. The participants of both service providers were satisfied with the way in which their rights were respected (Ochonye, Folayan, Fatusi, Emmanuel, Adepoju, Ajidagba, Jaiyebo, Umoh & Yusuf, 2019). This means that the participants were satisfied with service delivery in both public and peer-led facilities for HIV prevention services.

This study is strong because it used a mixed-method approach to collect data. The study used both quantitative and qualitative approaches. Quantitative data was collected on the level of satisfaction and then in-depth interviews and focus-group discussions were

conducted to explore reasons for satisfaction. The researchers were able to get participants' views on aspects of service delivery that needed to be improved. The demographics of the participants was not discussed and, therefore, there is little information about them.

In Ghana, a study was conducted on patients' satisfaction and its determinants in OPD and inpatient departments of tertiary hospitals. In OPD; less than half (38.2%) were satisfied with time spent by doctor with patients. Less than half (40.2%) of the participants were satisfied with waiting time to be seen by the doctor. More than half (60%) agreed their privacy was respected. More than half (52.4%) were satisfied with the way they were treated and cared for while in the hospital. Less than half (43.85%) were satisfied with overall services at the department. The findings at OPD mean that patients were not satisfied with the health care services.

Amongst inpatients, more than half (59.8%) of the participants agreed that medications were on time. Nearly one-third (31%) of the participants were least satisfied with the availability of nurses for consultation. Nearly half (49.4%) of the participants were least satisfied with information provided to them about their health by the nurses while 32.2% of the participants were least satisfied with the way nurses treated them (Akuamoah-Boateng, 2019). In this study the sociodemographic characteristics of the participants were not discussed and therefore there is little information on them. The questionnaire used in the study in India was a 7-point Likert scale, which is not similar to the questionnaire used in the present study. The 7-point Likert items suffer from bias in response style and there is small amount of quantitative difference in the data between scale variants.

In South Africa, cross-sectional study was done on patients' satisfaction with inpatient and outpatient aspects of care delivered at a district hospital in Pretoria. The majority of the participants were satisfied with the following at the hospital: building condition; hygiene; chairs to sit on; and patient treatment in the hospital by health care professionals. Participants who responded to questions about the inpatient services were satisfied with ward hygiene; linen; toilets and safety at night. Overall, the participants were satisfied with both inpatient and outpatient services at the Mamelodi district hospital (Malangu & Westhuisen, 2017). The findings mean that the district hospital provided quality service hence patients were satisfied. The study in a district hospital in Pretoria revealed important findings such as demographic information, satisfaction of patients with different components of service delivery and the overall satisfaction for inpatients and outpatients.

Another study in South Africa was done to determine patient satisfaction with the pharmaceutical services of a postal pharmacy of people who used community pharmacies. The study was conducted at eThekweni Municipality, KwaZulu-Natal (KZN) Province in July and August 2014. People using community pharmacies were generally satisfied with the services they received, their mean category score ranged from 5.30 to 7.94 out of a possible score of 10. Financial satisfaction with regard to money spent on prescribed medications showed a lower mean satisfaction score of 5.30 out of a possible score of 10. Participants using the postal pharmacy were also generally satisfied with the service they received, with mean category scores ranging from 6.01 to 8.01 out of a possible score of 10. Participants in the postal pharmacy study reported a significant difference in the level of financial satisfaction with regard to money spent on prescribed medications, while community pharmacy users reported upper satisfaction scores in respect of counselling or explanation of the use of prescribed medications. Postal pharmacy participants reported high levels of financial satisfaction with regard to money spent on prescribed drugs (Govender & Suleman, 2019). The findings mean that participants were satisfied with services provided in postal and community pharmacies. However, there is a contrast in the level of satisfaction regarding the money spent on prescribed medications.

Data was collected from patients based in KZN Province and the telephone interview method used was suitable for the study. The KZN Province covers an area of 2 292 square kilometres, making the use of telephone is a cheaper option for data collection, resulting in greater access to geographically dispersed interviewees. The selected landline telephone numbers were called between 08:00 and 21:00 to allow patients working during the day and night to be included in the sample. In a telephone interview there is challenge in establishing rapport; participants may provide lower quality data as they answer in rush so as to continue with household duties, which may affect the findings (Drabble, Trocki, Salcedo, Walker & Korcha, 2016).

#### **2.4. PATIENT SATISFACTION IN BOTSWANA**

In the south eastern region of Botswana, a prospective cohort study of safety and patient satisfaction with voluntary medical male circumcision was conducted. The study was conducted between November 2013 and October 2015. A participant reported 9 out of a possible 10 on the pain scale, indicating that his pain was enough to wake him at night.

More than 95% of the participants reported being very satisfied with the results of the procedure and follow-up care they received. One participant reported being very dissatisfied with the procedure and two were dissatisfied with the quality of care they received during follow-up (Wirth, Semo, Spees, Ntsuape, Barnhart & Ledikwe, 2017). The means there was quality service provided hence majority of the patients are satisfied.

The use of cohort design was suitable for this study as the researchers had to follow participants over a period of time. In this design, participants who are recruited to participate in a study share common characteristics; in this case, the participants were men who had undergone voluntary medical male circumcision. The participant eligibility criterion for this study was age between 18 to 49 years, which can be construed as selection bias since the circumcision programme targets men who are sexually active and, therefore, the study should have included men who are over 49 years old. Also the study should have included males who were less than 18 years old because they were also sexually active. Studies on reproductive health are both sensitive and personal, and participants may get reluctant to disclose certain information for fear of being judged. One participant reported sexual intercourse at his day 7 follow-up visit, which may not be true.

## **2.5. LEGISLATIVE FRAMEWORK ON SERVICE DELIVERY IN BOTSWANA**

The Ministry of Health and Wellness (MoHW) has made considerable efforts to ensure the development of various statues and has regulated different aspects of the health system in the country. The Botswana Health Professionals Act 2 of 2001 is responsible for regulating the practice of health care professionals in the country, except nurses and midwives, who are regulated by the Nurses and Midwifery Act (Seitio-Kgokgwe et al, 2016).

The Botswana Health Professionals regulates and controls the practice of medicine, dentistry, pharmacy and allied professions. Under this Act, the Botswana Health Professional Council was established to promote the highest standards in the practice of health service delivery in the country. The Council also protects the welfare and interests of the citizens of Botswana in regard to the health care services provided by health care professionals in the country (Botswana, 2001).

The Nurses and Midwifery Act 1 of 1995 provides for the regulation of the practice of

nursing and midwifery in Botswana. Under this Act, the Nursing and Midwifery Council of Botswana was established for the training and registration of nurses and midwives. The duty of this Council is to ensure and maintain high standards of nursing and midwifery education in Botswana. Under this Act, nurses and midwives must strive to achieve high professional standards when providing quality health care (Botswana, 1995).

## **2.6. CONCLUSION**

The literature review revealed that patient satisfaction is positively associated with patient trust, as well as doctors' interpersonal skills and communication behaviour. Patient satisfaction is negatively affected by waiting time and, if health facilities improve on waiting time, this will contribute positively to patient satisfaction. There is need for improved health professional to patient interaction, especially when providing information and knowledge to the patient. The research methodology used in the current study will be discussed in the next chapter.

## CHAPTER 3

### RESEARCH METHODOLOGY

#### 3.1. INTRODUCTION

In Chapter 2, the researcher discussed the literature on patient satisfaction from studies that were done internationally, on the African continent and in Botswana. In this chapter, the researcher will outline the research design, research setting, study population, sampling method, pilot study, inclusion and exclusion criteria, data collection, data analysis and ethical considerations. The researcher further discusses the data collection method, data analysis, reliability, validity and bias in this chapter.

#### 3.2. RESEARCH DESIGN

Quantitative cross-sectional design was used to investigate the level of patient satisfaction with service delivery at a hospital in Botswana. A cross-sectional study is a study design in which data is collected at a single point in time (Setia, 2016).

This design was chosen because it is quick, inexpensive and presents no challenges with respect to participants being lost to follow-up (Bland, Copeland, Klimberg & Gradishar, 2018).

#### 3.3. RESEARCH SETTING

The study was conducted at Palapye Primary Hospital. The hospital is a government institution based in a small town in the central district of Botswana called Palapye. The town is situated on the busy A1 highway connecting Botswana's two capital cities, namely, Gaborone and Francistown. The hospital serves a catchment population of over 90 000 people and the population of this area is expected to increase in the 2021 population census since Palapye is a fast growing town (Statistics Botswana, 2015).

The hospital has 50 approved beds and serves as a referral hospital for clinics and health posts in Palapye and surrounding villages. The hospital comprises the following units: a general ward which is combined with a paediatric ward; a maternity ward; 4 rooms that are used by the OPD for consultations; and an accident and emergency (A&E) department. There are other units in the hospital, such as the Maternal Child Health (MCH) unit, the Sexual Reproductive Health (SRH) unit, the Infectious Diseases Control Centre (IDCC), the Eye Clinic, the Dental Clinic and the Theatre. There are currently 9 doctors employed at the

hospital. A total of 73 nurses are distributed throughout the units as follows: general ward 18, maternity ward 21, OPD with A&E 21, SRH 6, Eye Clinic 2 and IDCC 5. A map indicating the location of the town, located in the Central District of Botswana, is attached as Figure 1.



## **Figure 1: Map showing Central district of Botswana locating Palapye**

The World Health Organization (WHO) recommends a 1:1000 doctor to population ratio (Kumar & Pal, 2018), whereas in Botswana the doctor to population ratio is 0.57:1000, representing half the WHO recommended ratio (Ontebeitse, 2020). The proposed federal ratio of nurse to patient at a critical care unit and labour/delivery is 1:2 (Blitchok, 2018). The ratio at this hospital is 1:8 during most shifts in both general ward and maternity ward, where they admit patients requiring critical care and labour/delivery, respectively.

### **3.4. POPULATION**

The population of interest to this study were inpatients and outpatients who access health services at Palapye Primary Hospital in the following units: general ward, OPD, A&E, maternity, SRH, IDCC and the Eye Clinic. The target population for the study comprised of all men and women aged 18 years and older who received health services at the hospital. The hospital's daily average head count was 239, therefore, in 15 days, 3 585 patients accessed health services at the hospital. On average, 100 people accessed health services daily in OPD and A&E, while 50 people per day accessed the IDCC, 27 people accessed the Eye Clinic, 20 people accessed the SRH, 22 accessed the general ward and 20 people accessed the maternity facilities.

### **3.5. INCLUSION AND EXCLUSION CRITERIA**

#### **3.5.1. Inclusion criteria**

The following inclusion criteria were applied in the sample selection process:

- Inpatients and outpatients in the age group 18 years and above were included in the study because they are able to give their consent to participate in the study (Declaration of Helsinki, 1964).
- Inpatients who had spent two or more nights in the hospital were included in the study as the researcher believed they had experienced service delivery.

#### **3.5.2. Exclusion criteria**

The following criteria were applied to exclude people from the study:

- Unstable psychiatric patients, emergency and very ill patients as they were not considered by the researcher to be in a position to participate in the study.



### 3.6. SAMPLING

Sampling is a specific technique used to select members of the population for inclusion in a study (Dudovskiy, 2018). A consecutive sampling technique was used in this study to select the patients who fulfilled the inclusion criteria. Consecutive sampling is a non-probability sampling method that includes all available subjects into a study sample (Thewes, Rietjens, Van den Berg, Compen, Abrahams, Poort, Van de Wal, Schellekens, Peters, Speckens, Knoop & Prins, 2018). Non-probability sampling was employed in the study because it is less costly and convenient compared to probability sampling (Howard, 2019). Data were collected from the first patients approached in each unit until the required sample for the unit was reached.

A sample size of 360 patients was required for the study, which was calculated based on the Taro Yamane formula (Osahon & Kingsley, 2016). For inpatients, data was collected from 60 patients in general ward and 60 patients in the maternity ward. For outpatients, data was collected from patients as follows: 80 patients from OPD, 60 patients from IDCC, 50 patients from the Eye Clinic and 50 patients from the SRH.

The population of the study was finite; therefore, it became imperative to apply a statistical model to determine the sample size (Oluchi, 2018). The formula was employed on a population of 3 585 patients at a maximum acceptable margin of error of 0.05 to get the sample size as follows (Eze, 2017):

$$n = \frac{N}{1+N(e)^2}$$

$$n = \frac{3585}{1+3585(0.05)^2}$$

$$n = 360$$

Where:

n = sample size

N= Population size = 3585

e= sampling error (5% )

95% interval are assumed

### 3.7. DATA COLLECTION

Data collection is the process of collecting and preparing information from all sources relevant to the study (Dudovskiy, 2018). Data were collected during the week over a period of 4 weeks from the 1<sup>st</sup> of September to the 28<sup>th</sup> of September 2020. A self-administered questionnaire was used to collect data and was constructed after reviewing the literature (Chandra et al, 2019; Cui et al, 2020; Malangu & Westhuisen, 2017). Structured questionnaires with close ended questions were given to the participants to complete. The questionnaire was composed of a demographic data section and a series of questions on a 5-point Likert scale. The questionnaire was coded as follows; strongly disagree 1, disagree 2, unsure 3, agree 4 and strongly agree 5.

The questionnaire was in English (Appendix 1) and translated in Setswana (Appendix 2) for those who could read and understand English. The researcher was available to read and give clarity to the participants who could not read properly. Participants were given time to complete the questionnaire. It was the responsibility of the researcher to make sure questionnaires were completed properly and to give clarity, where necessary. The participants were given an explanation on how to complete the questionnaire and each participant took 20 minutes, on average, to complete the instrument. The questionnaires were completed for illiterate participants by the researcher. Statements were read for them by the researcher and asked the extent they agree or disagree while being given the option to remain neutral. The inpatient questionnaire had a Cronbach alpha of 0.94, while the outpatient questionnaire had a Cronbach alpha of 0.89. These values indicate that the questionnaires were reliable.

### **3.8. DATA ANALYSIS**

Data analysis involves critically analysing numbers to provide an interpretation in order to establish the rationale for the main findings. Mean standard deviations, frequencies and percentages were used to interpret the data. In a quantitative study, raw numbers are turned into meaningful data by applying rational and critical thinking (Dudovskiy, 2018). In data analysis, statistical tests are used to draw valid conclusions from the data (Albers, 2017).

The data were entered into a Microsoft Excel Spreadsheet and analysed using SPSS V.21.0. Patient satisfaction was determined as follows: each participant's score was summed and the mean total score for each group was calculated (outpatient, 58.9 and inpatient, 70.3).

The mean score was used as the cut-off point and the data was dichotomised into satisfied and dissatisfied in the same way as adopted in studies conducted in Ethiopia (Ahmed, Assefa, Demisie, Kenay, 2014) and China (Zhang, Yang, Wang, Dai, Shan & Wang, 2020). Patients who scored above the mean score were classified as satisfied. A comparison between satisfied and dissatisfied patients was performed using the chi-square test. A p-value of less than 0.05 was considered statistically significant.

### **3.9. RELIABILITY AND VALIDITY**

#### **3.9.1. Reliability**

Reliability is the ability of the data collection instrument to yield the same results, meaning that the instrument used in the study should be consistent. Quantitative method was used in the study by issuing questionnaires to the participants. For an instrument to be said is reliable it should give consistent results, even if the study is repeated or done by another researcher. Reliability has the following attributes: internal consistency; stability; and equivalence. Internal consistency is the extent at which all the items on a scale measure one construct. Stability is the consistency of results using the same instrument. The questionnaire used to collect data should give almost the same results every time it is used. Equivalence means that the questionnaire should gather consistent responses from the participants, even when used by another researcher (Heale & Twycross, 2015). To ensure reliability, the questionnaire was pilot tested using 30 participants who accessed health care services at different units within the hospital. The pilot study also helped the researcher to estimate the time and resources needed for the actual study (Crossman, 2019) and to ensure that the data collection instrument measured what the researcher intended it to measure. The data collected during the pilot study were not analysed as part of the main study.

#### **3.9.2. Validity**

Validity in research relates to the extent at which a survey correctly measures the elements that need to be measured (Dudovskiy, 2018). When an instrument is valid, the results obtained truly reflect the concept the instrument is designed to measure. The objective of the study was to establish the level of patient satisfaction, so it was pertinent of the researcher to use quantitative research methodology by issuing questionnaires to the patients and, as such, a questionnaire was a valid instrument for this study. The questionnaire was also sent to lecturers of Public Health at the university who evaluated it

to ensure validity. There are three types of validity that were ensured in the study.

- **Content validity**

The questionnaire that was used by the researcher adequately covered all the content with respect to the variable that it should have. The questionnaire was constructed such that it covered the entire domain related to the variable (Heale & Twycross, 2015).

- **Construct validity**

Construct validity is focuses on whether or not the questionnaire could draw inferences about test scores related to the concept being studied. Construct validity was established by assessing the suitability of measurement tool to measure the phenomenon being studied (Dudovskiy, 2018).

- **Criterion validity**

This type of validity determines whether there is any other instrument that could measure the same variable. To ensure criterion validity, correlation was done to compare the extent to which different instruments measure the same variable (Heale & Twycross, 2015). During collection of questionnaires from the patients, they were checked for completeness. The questionnaire was sent to various experts in the field of research, such as lecturers at the School of Health Sciences at the University of Limpopo to review its validity.

### **3.10. BIAS**

Bias is a systematic error in the study made during the design phase, or during acquisition or analysis of data (Althubaiti, 2016). Bias leads to a distortion of the results of the study. It was the core responsibility of a researcher to avoid bias by being transparent and accurate, and by not deviating away from the truth in research question formulation, data collection, data analysis and interpretation, which could lead to false conclusion (Galdas, 2017).

#### **3.10.1. Selection bias**

Selection bias occurs when the researcher chooses participants who will not be of benefit to the study. The researcher avoided choosing the participants incorrectly (Nunan, Bankhead & Aronson, 2017) and avoided selection bias in the study by including all patients above 18

years old who met the inclusion criteria.

### **3.10.2. Information bias**

Information bias is the misclassification of information (data) and is the most common source of bias that affects the validity of a study. Information bias involves flaws in procedures used to gather relevant information, where the researcher is selective in terms of information needed for the research (Althubaiti, 2016). The researcher avoided asking leading questions, since this would affect data analysis and interpretation, as well as drawing conclusions from the data for the study. In addition, in order to avoid information bias, the questionnaire was clear, precise and unambiguous, making use of close-ended questions.

### **3.11. PILOT STUDY**

Before the actual research commenced, a small scale study was carried out at Palapye Primary Hospital. After getting written permission from the MoHW and the hospital, verbal permission to do pilot study was obtained from management of the hospital. A pilot study gives the researcher an idea of what is going to happen in the actual study. A pilot study represents a fundamental phase of the research process and is used to assess the feasibility of the approach to be used in the main study. A pilot study helps the researcher to estimate time and resources needed for the actual study (Crossman, 2019).

The rule of thumb states that at least 30 participants should be used in a pilot study (Whitehead, Julious, Cooper & Campbell, 2016). The questionnaire was pilot tested by administering it to a representative sample of 30 participants determined by the rule of thumb (Belle, Whitehead & Julious, 2018) in order to access health services in certain units of the hospital. The participants in the pilot study were not be part of the sample for the main study. The pilot study was conducted at Palapye Primary Hospital where the main study was conducted. Contamination of data was possible and was avoided as participants in the pilot study were given explanation by the researcher that they did not qualify take part in the main study. Pilot study was conducted for a week period from the 24<sup>th</sup> to the 28<sup>th</sup> of August 2020. Pilot study was conducted a week before the main study. Two questions were re-phrased after the pilot study; question 5 on the outpatient/ casualty has convenient hours of opening and question 33 on if I received medicines/ pills I did not wait long for them.

## **3.12. ETHICAL CONSIDERATIONS**

### **3.12.1. Ethical clearance and permission**

The research proposal was presented to the Department of Public Health and then submitted to the School of Health Care Sciences and the Faculty of Health Science at the University of Limpopo for approval. An ethical clearance certificate was obtained (Appendix 3). Before collecting data ethical clearance needed to be obtained from the Turfloop Research Ethics Committee (TREC) of the University of Limpopo. Ethical clearance was required to ensure that research is conducted in a responsible and ethical manner, so as to minimise the risk of harm to humans and ensure that the study leads to beneficial outcomes (Hanekom, 2018). A letter seeking permission to collect data (Appendix 4) was written to the Health Research Unit of the MoHW, Botswana. A written reply giving the researcher permission to conduct the study (Appendix 5) was received from the Health Research Unit. Another letter requesting permission to do the study (Appendix 6) was written to the management of the hospital and a written reply granting permission (Appendix 7) to conduct the study was received from the management of the hospital.

### **3.12.2. Addressing harm**

The addressing harm principle addresses the potential risks of participation and determines what causes harm that could be physiological, emotional, social and even economic in nature. To fulfil this principle, the study avoided any form of harm as the risks of participation to the participants during data collection were minimal. Communication with participants was done with respect and dignity by avoiding asking embarrassing questions. A detailed explanation about the study was given to the participants and its significance was highlighted. The addressing harm principle is focused on the usefulness of the study (Akaranga & Makau, 2016). In this study, the participants were not exposed to any harm (Dudovskiy, 2018).

#### *3.12.2.1. Addressing psychological and emotional harm*

The general idea of the study was explained to the participants as suggested by McLeod (2015), who were then reassured about their role, in the study. The data collection exercise was the first time that most participants took part in a study and they experienced cognitive disturbances and displayed anxiety, confusion and feelings of stress (Dixon & Quirke, 2018).

#### *3.12.2.2. Addressing social harm and economic harm*

To avoid social harm, patients who showed limited understanding of the study were not

embarrassed. The study did not diminish the social status or reputation of the participants, as suggested by Dixon and Quirke (2018). In this study, participants did not suffer any financial loss, as there were no costs associated with data collection.

#### *3.12.2.3. Protecting participants from Covid 19*

The researcher is a professional nurse and is familiar with guidelines of preventing the spread and transmission of Covid 19. To prevent the spread of Covid 19, the researcher put on a face shield and mask and sanitised his hands and the pen. Participants sanitised their hands before and after completing the questionnaires. Putting on a mask to cover the nose and the mouth is a requirement in Botswana when entering public areas (Xinhua, 2020).

### **3.12.3. Anonymity, confidentiality and privacy**

#### *3.12.3.1. Anonymity*

Anonymity refers to keeping anonymous any information about the participants by avoiding revealing their names and protecting sensitive information about them (Akaranga & Makau, 2016). The information obtained from the participants was protected. To ensure anonymity, no names were written on the questionnaires; the questionnaires were numbered and, therefore, participants were not able to be traced. In cases where anonymity could not be ensured, confidentiality was promised.

#### *3.12.3.2. Confidentiality*

Confidentiality means that the information gathered remains between the researcher and the respondent (Allen, 2017). To ensure confidentiality, information from the completed questionnaires was only shared with the researcher's supervisors. To protect the identity of the respondents, completed questionnaires were stored safely in sealed envelopes, as suggested by Al Tajir (2018).

#### *3.12.3.3. Privacy*

To ensure the privacy of participants, no personal information, including a person's health or disability, and information that relates to a health service a participant received was obtained from the participants, as suggested by Flanagan, Bauchner and Fontanarosa (2020).

### **3.12.4. Informed consent**

Informed consent means that a participant voluntarily gives consent to take part in a study.

Though the participants agreed to take part in this study, they were not forced to continue if they decided to leave the study. Participants who withdrew from the study and those that refused to take part in the study were assured their non-participation would not affect further health care services they received from the hospital, as suggested by Akaranga and Makau (2016). An informed consent letter (Appendix 8) was written in the language understood by the participants. The participants were given sufficient time to decide whether to take part in the study or not. However, informed consent was not only about writing and signing, it was a process of ensuring that the participants fully understood the study and their participation in the study. Informed consent was given in the form of a written and signed form, as suggested by Manti and Licari (2018). The informed consent form was translated in Setswana (Appendix 9) for the participants who could not read and understand English.

### **3.13. CONCLUSION**

In this chapter, the researcher detailed the research methodology used in this study on the patient satisfaction with regard to service delivery at a hospital in Botswana. The sampling method, pilot study, inclusion and exclusion criteria, data collection procedure and data analysis methods were all explained. The measures put in place to ensure reliability and validity, as well as ethical considerations, were discussed. In the next chapter, the researcher will present the results of the study.



## CHAPTER 4

### PRESENTATION AND INTERPRETATION OF RESULTS

#### 4.1. INTRODUCTION

In the previous chapter, the study design, setting, study population, inclusion and exclusion criteria, sampling technique and sample size, data collection, data analysis, reliability, validity and the ethical considerations of the study were outlined by the researcher. In this chapter, the findings of the study are presented and interpreted. The chapter is divided into three sub-sections, namely, the socio-demographic characteristics of the study participants; outpatients and inpatients satisfaction with service delivery; satisfaction level of participants; and association of satisfaction level of the outpatient and inpatient in relation to sociodemographic characteristics.

#### 4.2. DEMOGRAPHIC CHARACTERISTICS

Table 4.1 presents demographic characteristics of participants. Three hundred and sixty patients participated in the study; the greater proportion, 67% (n=240), were outpatients, while only 33% (n=120) were inpatients. The number of inpatients participated were evenly distributed among the two disciplines selected for the study, namely, 60 from the maternity ward and from 60 from the general ward (Males = 29 and Females = 31). A large number of outpatients selected for the study (n=80) were from OPD, followed by (n=60) from the IDCC, while the SRH and Eye Clinic each accounted for 50 of the outpatients. The mean age of the outpatients was 38.5 years with a standard deviation (SD) of  $\pm 15.6$  (range from 18 to 87 years), while for the inpatients, the mean age was 33.3 years ((SD  $\pm 12.4$ ; range from 18 to 75 years). A greater proportion (63.6% ) of the participants in both groups were younger than 40 years old.

**Table 4.1: Demographic characteristics of patients**

	Outpatients (n=240)		Inpatients (n=120)	
	No	%	No	%
Age (years)				
<20	17	7	10	8
20-29	68	28	46	38
30-39	56	23	32	27
40-49	45	19	21	18
50-59	27	11	5	4
60+	27	11	6	5
Gender				
Male	92	38	29	24
Female	148	62	91	76
Employment Status				
Unemployed	93	39	64	53
Employed	112	47	42	35
Student	35	15	14	12
Level of Education				
None	32	13	4	3
Primary	17	7	15	13
Secondary	99	41	64	53
Tertiary	92	38	37	31

In both groups of the respondents, a greater proportion was females (62% outpatient and 76% inpatients). Nearly half (47%) of the outpatients were employed, whereas more than half (53%) of the inpatients were unemployed. A large number of the participants had a low level of education (62% outpatients and 69% inpatients).

#### 4.3. LEVEL OF PATIENT SATISFACTION WITH SERVICE DELIVERY

The mean satisfaction level with service delivery was 58.9 (SD  $\pm$ 7.9; range from 17 to 76) for outpatients, while for inpatients it was 70.3 (SD  $\pm$ 12.5; range from 15 to 84).

**Table 4.2: Comparison of inpatients' and outpatients' level of satisfaction**

	No	%
Outpatients (n=240)		
Satisfied (score <58.9)	155	65
Dissatisfied (score $\geq$ 58.9)	85	35
Inpatients (n=120)		
Satisfied (score <70.3)	65	54
Dissatisfied (score $\geq$ 70.3)	55	46

p - value = 0.056

Table 4.2 presents the level of satisfaction of inpatients and outpatients with overall service delivery. A large proportion (65%) of the outpatients were satisfied with service delivery

compared to the inpatients (54%), however, the results were not statistically significant ( $p>0.05$ ).

#### **4.4. OUTPATIENTS SATISFACTION WITH SERVICE DELIVERY**

Table 4.3 presents the individual items of level of satisfaction with service delivery for outpatients. Less than half (43.8%) of the outpatients disagreed that the doctor explained what was wrong with them. Nearly two-thirds (65.8%) of the patients disagreed that the doctor respected their privacy. More than two-thirds (66.9%) of the patients disagreed that the doctor treated them politely. Less than half of the patients (45.8%) strongly disagreed there was reasonable waiting time to be assisted. More than two-thirds (67.4%) disagreed they had confidence on the doctor. Almost two-thirds (66.5%) disagreed the doctor who treated them showed concern. More than two-thirds (67.4%) of the patients disagreed that they were satisfied with the doctor's expertise. More than half (63.3%) of the patients agreed that the unit had convenient opening hours. More than half (63.6%) of the patients agreed that the time made available for consultation was sufficient. More than half (64.4%) of the patients agreed that the explanation given by the doctor about their condition was good.

**Table 4.3: Individual items for outpatients satisfaction with service delivery**

	n	Mean±SD	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
The outpatient/ casualty department has convenient hours of opening	237	3.58±0.61	4(1.7)	3(1.3)	80(33.8)	150(63.3)	-
The doctor who treated me was polite	239	2.48±0.76	1(0.4)	160(66.9)	40(16.7)	38(15.9)	-
The nurse who treated me was polite	239	3.58±0.64	4(1.7)	7(2.9)	74(31.0)	154(64.4)	-
I was pleased with the way I was treated at the hospital	236	3.59±0.63	6(2.5)	-	77(32.6)	153(64.8)	-
The doctor explained to me what was wrong with me	89	2.47±0.75	1(1.1)	12(13.5)	39(43.8)	37(41.6)	-
The nurse explained to me what was wrong with me	240	3.54±0.62	3(1.3)	7(2.9)	87(36.3)	143(59.6)	-
The doctor respected my privacy	240	2.50±0.79	2(0.8)	158(65.8)	38(15.8)	42(17.5)	-
The nurse respected my privacy	239	3.61±0.58	1(0.4)	9(3.8)	71(29.7)	158(66.1)	-
Next time I am ill I will come back here	240	3.58±0.61	3(1.3)	6(2.5)	81(33.8)	150(62.5)	-
Satisfied with doctor's expertise/ skill	239	2.45±0.74	2(0.8)	161(67.4)	42(17.6)	34(14.2)	-
Satisfied with nurse's expertise/ skill	238	3.56±0.58	1(0.4)	8(3.4)	86(36.1)	143(60.1)	-
Reasonable waiting time to be assisted	179	2.27±1.25	82(45.8)	6(3.4)	51(28.5)	40(22.3)	-
Satisfied with the services provided	237	3.50±0.69	8(3.4)	4(1.7)	86(36.3)	139(58.2)	-
I have confidence on doctors	239	2.46±0.75	2(0.8)	161(67.4)	40(16.7)	36(15.1)	-
I have confidence on nurses	239	2.59±0.61	3(1.3)	7(2.9)	76(31.8)	153(64.0)	-
Time taken for consultation was good	239	3.52±0.76	12(5.0)	3(1.3)	72(30.1)	152(63.6)	-
Explanation about my condition was good	239	3.61±0.58	3(1.3)	2(0.8)	80(33.5)	154(64.4)	-
The doctor who attended me showed sense of concern	239	2.46±0.74	2(0.8)	159(66.5)	45(18.8)	33(13.8)	-
The nurse who attended me showed sense of concern	238	3.52±0.63	3(1.3)	8(3.4)	89(37.4)	138(58.0)	-

#### 4.5. INPATIENTS SATISFACTION WITH SERVICE DELIVERY

The individual items for level of satisfaction with service delivery for inpatients is illustrated in Table 4.4. Less than half of the patients (45%) disagreed that an explanation of the purpose of discharge was given to them. About half (50.4%) of the patients agreed that their privacy was respected. Nearly half (48.7%) of the patients agreed that the duration of wait-time for a bed on arrival was reasonable. More than half of the patients (58.1%) agreed that, when they needed help at night, there was a nurse to assist them. More than half (56.8%) of the patients agreed they felt safe at night. Nearly half (48.7%) of the patients agreed that the duration of wait-time for doctor to see them after admission was

reasonable. More than half of the patients (59.2% ) agreed that the doctor, accompanied by a nurse, made ward rounds. About half (49.2% ) of the patients agreed it did not take long to get their medication.

**Table 4.4: Individual items for inpatients satisfaction with service delivery**

	n	Mean±SD	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
The doctor who treated me listened to my problems	118	3.53±0.57	1(0.8)	1(0.8)	50(42.4)	66(55.9)	-
The nurse who treated me listened to my problems	118	3.48±0.68	4(3.4)	-	49(41.5)	65(55.1)	-
The doctor who treated me was polite	118	3.51±0.59	1(0.8)	3(2.5)	48(40.7)	66(55.9)	-
The nurse who treated me was polite	119	3.44±0.65	2(1.7)	4(3.4)	52(43.7)	61(51.3)	-
I was pleased with the way I was treated at the hospital	120	3.42±0.76	5(4.2)	5(4.2)	44(36.7)	66(55.0)	-
The doctor explained to me what was wrong with me	120	3.40±0.79	6(5.0)	5(4.2)	44(36.7)	65(54.2)	-
The nurse explained to me what was wrong with me	119	3.33±0.84	7(5.9)	8(6.7)	43(36.1)	61(51.3)	-
My privacy was respected	115	3.23±0.97	12(10.4)	8(7.0)	37(32.2)	58(50.4)	-
If I received medicines/ pills I did not wait long for them	120	3.26±0.91	10(8.3)	8(6.7)	43(35.8)	59(49.2)	-
The duration of wait-time for a bed on arrival was reasonable	119	3.26±0.91	11(9.2)	5(4.2)	45(37.8)	58(48.7)	-
Visiting hours are long enough	117	3.32±0.91	10(8.5)	5(4.3)	40(34.2)	62(53.0)	-
Doctors answered all my questions about my illness	120	3.48±0.73	4(3.3)	5(4.2)	41(34.2)	70(58.3)	-
Nurses answered all my questions about my illnesses	120	3.35±0.85	8(6.7)	5(4.2)	44(36.7)	63(52.5)	-
When I needed help at night, there was always a nurse to help me	117	3.45±0.78	6(5.1)	3(2.6)	40(34.2)	68(58.1)	-
I felt safe at night	118	3.36±0.90	10(8.5)	4(3.4)	37(31.4)	67(56.8)	-
The duration of wait-time for doctor after admission was reasonable	119	3.36±0.87	9(7.6)	4(3.4)	40(33.6)	66(55.5)	-
The doctor with the nurse made ward rounds	120	3.51±0.68	3(2.5)	4(3.3)	42(35.0)	71(59.2)	-
Satisfied with doctor's expertise/skill	120	3.55±0.64	2(1.7)	4(3.3)	40(33.3)	74(61.7)	-
Satisfied with nurse's expertise/skill	119	3.52±0.66	2(1.7)	5(4.2)	41(34.5)	71(59.7)	-
Satisfied with services provided	120	3.44±0.79	5(4.2)	7(5.8)	38(31.7)	70(58.3)	-
Explanation of the purpose of discharge given to me	120	2.78±0.89	3(2.5)	54(45.0)	29(24.2)	34(28.3)	-

#### 4.6. SOCIODEMOGRAPHICS ASSOCIATION WITH SATISFACTION

The association between level of satisfaction and demographics of the inpatients and outpatients is shown in Table 4.5. There was no statistically significant association between the age, gender, employment status, level of education of the outpatients and their level of satisfaction; however, those in the age group 50-59 years (48%), females (36%), unemployed (40%) and those with primary education (59%) were more likely to be dissatisfied.

In relation to the inpatients, a significant higher proportion of these patients who were employed (62%) were more likely to be dissatisfied with service delivery compared to the unemployed (42%) and students (14%) ( $p < 0.05$ ). Other variables, such as age, gender, and level of education, were not associated with level of satisfaction ( $p > 0.05$ ); however, inpatients in the age group 30-39 years (59%) and those aged 50-59 years (60%), females (49%), with secondary (48%) and tertiary (51%) education were more likely to be dissatisfied.

**Table 4.5: Association between demographic characteristics of the inpatients/ outpatients and level of satisfaction (%)**

	Outpatient Level of Satisfaction (n=240)		p-values	Inpatient Level of Satisfaction (n=120)		p-value
	Satisfied (%)	Unsatisfied (%)		Satisfied (%)	Unsatisfied (%)	
Age (years)						
<20	14(82)	3(18)	0.432	3(30)	7(70)	0.093
20-29	43(63)	25(37)		24(52)	22(48)	
30-39	37(66)	19(34)		13(41)	19(59)	
40-49	28(62)	17(38)		13(62)	8(38)	
50-59	14(52)	13(48)		2(40)	3(60)	
60+	19(70)	8(30)		6(100)	0(0)	
Gender						
Male	60(65)	32(35)	0.871	19(66)	10(34)	0.159
Female	95(64)	53(36)		46(51)	45(49)	
Employment Status						
Unemployed	56(60)	37(40)	0.517	37(58)	27(42)	0.006
Employed	76(67)	36(32)		16(38)	26(62)	
Student	23(66)	12(34)		12(86)	2(14)	
Level of Education						
None	21(66)	11(34)	0.274	4(100)	0(0)	0.175
Primary	7(41)	10(59)		10(67)	5(33)	
Secondary	64(65)	35(35)		33(52)	31(48)	
Tertiary	63(68)	29(32)		18(49)	19(51)	

#### 4.7. CONCLUSION

The researcher described the findings of the study on patient satisfaction with service delivery at a hospital in Botswana. The results focused on the demographic characteristics of patients; their satisfaction with service delivery; comparison of level of satisfaction between inpatients and outpatients and the association of sociodemographic characteristics with level of patient satisfaction regarding service delivery. In the next chapter, the researcher will present a discussion of the findings of this study.

## CHAPTER 5 DISCUSSION AND CONCLUSION

### 5.1. INTRODUCTION

In the previous chapter, the researcher presented and interpreted the results of this study. In this chapter, the findings of this study are discussed and compared to the relevant literature. The main purpose of this study was to investigate the level of inpatient and outpatient satisfaction with service delivery at a hospital in Botswana. This chapter is divided into the following subsections: (1) socio-demographics, (2) level of satisfaction and (3) association between level of satisfaction and demographic information, (4) conclusion, (5) recommendations and (6) limitations.

### 5.2. DEMOGRAPHIC CHARACTERISTICS OF THE PARTICIPANTS

#### 5.2.1. Age

In the present study, the mean age of the outpatients was 38.5 years (SD  $\pm$ 15.6), ranging from 18 to 87 years, while the mean age of the inpatients was 33.3 (SD  $\pm$ 12.4) years, ranging from 18 to 75 years. Greater proportion of both inpatients and outpatients who participated in the present study were in the age groups 20-29 years and 30-39 years.

Similarly, a cross-sectional study conducted at Benue State University Teaching Hospital, Makurdi, North Central Nigeria found that more than two-thirds of the participants were in the age groups 26-35 years and 36-45 years (Ogbeyi, Adekwu & Amede, 2018). In their study, Malangu and Westhuisen (2017) reported that the mean age of their study participants was 35.6 years (SD  $\pm$ 12.2) ranging from 18 to 75 years, while nearly half (41.5%) of their participants fell within the age group 31-45 years.

The national demographic survey (2017) conducted in Botswana found that 59.8% of the population were in the age group 15-64 years (Statistics Botswana, 2018). The reasons for young adults aged 20-39 years utilising this facility need investigation, possibly most of them are coming for health care services such as cervical cancer screening, medical male circumcision, antenatal care, postnatal care and family planning.

#### 5.2.2. Gender

In agreement with previous studies (Malangu & Westhuisen, 2017; Ogbeyi et al, 2018; Hu,



Zhou, Liu, Wang, Liu, 2019), nearly two-thirds of the participants in the present study were females. An earlier study also demonstrated that women make greater use of medical care services than men (Bertakis, Azari, Helms, Callahan, Robbins, 2000). The last census undertaken in Botswana indicated that, out of a total of two million people in the country, 52% were female and 48% were male (Statistics Botswana, 2018). In this study, more females than males participated. The reason for these could be that women are more worried about ill-health or are more health conscious. In addition, the fact that women make use of maternal health care services, such as cervical cancer screening, antenatal care, postnatal care and family planning, could account for this observation (Vidler, Ramadurg, Charantimath, Katageri, Karadiguddi, Sawchuck, Qureshi, Dharamsi, Joshi, Dadelszen, Derman, Bellad, Goudar & Mallapur, 2016).

### **5.2.3. Employment Status**

In the present study, the greater proportion of the participants were either unemployed or students (outpatients at 53% and inpatients at 65%). These findings concur with the findings of a study conducted in a district hospital in South Africa which reported that slightly more than half (54.8%) of the participants were unemployed (Malangu & Westhuisen, 2017). In contrast, in Nigeria, a cross-sectional study found that slightly more than half (53%) of the participants were farmers (Ogbeyi et al, 2018). The findings of this study are higher than household survey conducted in Botswana which indicated that less than half (40.7%) of the population were unemployed (Central Statistics Office, 2019). The majority of the participants were unemployed and this is associated with a clear relationship between unemployment and concurrent health problems, such as anxiety, depression, high blood pressure and other diseases (Brydsen, Hammarstrom & Sebastian, 2018).

### **5.2.4. Level of education**

Consistent with the findings of previous study, more than two-thirds of the participants in this study had secondary or tertiary education (Malangu & Westhuisen, 2017). In contrast, a Nigerian study found that nearly half (45%) of the participants were illiterate, i.e., could not read or write (Ogbeyi et al, 2018). The World Bank (2020) had shown that most of the population (75%) in Botswana had low education levels (no tertiary education). More than two-thirds of the participants in this study had secondary or tertiary education. A possible explanation of this finding is that these people are literate and, therefore, have knowledge

and an understanding of health care services provided and want to access these services (Feinberg, Frijters, Johnson-Lawrence, Greenberg, Nightingale & Moodie, 2016).

### **5.3. LEVEL OF SATISFACTION OF THE PARTICIPANTS**

#### **5.3.1 Outpatient Satisfaction Level**

In the present study, overall, nearly two thirds (65% ) of the outpatients were satisfied with services obtained from the hospital. This finding is higher than the 44% reported in a study conducted at a tertiary hospital in Ghana (Akuamoah-Boateng, 2019). The possible reason for this difference could be that Botswana is giving priority to improvement of health care quality. The level of satisfaction in the study is slightly higher than 61% reported in a study conducted at Mamelodi Hospital in Gauteng Province, South Africa (Malangu & Westhuisen, 2017). The outcome of the present study is, however, lower than the 81% found in a study carried out in community health centres in the Metropolitan District of the Western Cape, South Africa (Steyl, 2020). The possible reasons of both countries having outpatient satisfaction level of over 60% could be that both are trying to improve quality of their health care services. The possible explanation in the difference in findings could be due to differences in study population characteristics and the tools used by the researchers.

With regard to individual items of care outpatients received, in South Africa, a cross-sectional study conducted in a district hospital indicated that slightly more than half (51.7% ) of the outpatients said that their privacy was respected by all the staff and (89.2% ) said that the doctor who treated them was polite (Malangu & Westhuisen, 2017). In contrast, in this study, two-thirds (67% ) of the outpatients said that the doctor who treated them was not polite and 66% said that the doctor did not respect their privacy.

The study by Malangu and Westhuisen (2017) indicates that most of the outpatients (85.2% ) feel that doctors explained to them what was wrong with them. In the present study, a concern was that only 42% of the outpatient said that the doctor explained to them what was wrong with them. The reason for this behaviour of doctors is not clear and needs further investigation. Nearly two-thirds (66% ) of the patients said that the doctor did not respect their privacy and almost two-thirds (67% ) of the patients said that the doctor did not treat them politely. More than two-thirds (67.3% ) of the patients said the doctor who treated them did not show concern. These findings are not surprising, given the shortage of

doctors in the facility, which leads to an overburdening workload placed on the existing doctors, affecting their ability to render quality care and their morale. This shortage of doctors makes the doctors focus more on the medical care of patients, causing them to overlook privacy and interpersonal issues (Adhikary et al, 2018).

Almost half (49.2%) of the patients indicated there was no reasonable waiting time to be assisted. This finding is different to a study by Steyl (2020) where almost two-thirds (65.3%) were not satisfied with waiting time to be assisted. The reason for this finding, according to Nkrumah, Yeboa and Adiwokor (2015), is that patients expect to receive prompt attention to their health needs without any delay. Reduced waiting time is difficult to achieve because the limited number of health care professionals are overwhelmed by the large turnout of patients on a daily basis. Waiting time is a source of dissatisfaction for outpatients and remains a challenge to the quality of care and services in public health facilities.

More than two-thirds (68.2%) of the participants indicated they had no confidence in the doctor. More than half (63.6%) of the patients agreed that the time set aside for consultation was good. More than half (64.4%) of the patients agreed that the explanation they received about their condition was good. The reason for finding on confidence in the doctors is not clear and may need further investigation as this finding contradicts findings on consultation time and explanation about the condition. If patients are satisfied with time for consultation and the explanation they receive about their condition then one would think that they would develop confidence in the doctor. A possible explanation of this finding is that, according to Akuamoah-Boateng (2019), the limited time they spend with their patients allows the patients to ask questions concerning their treatment and get answers. Only 3% of the patients were not satisfied with the opening hours of the facility, which is not surprising as outpatient units open at the times suitable for the patients to access their services.

In comparison to the study by Akuamoah-Boateng (2019) in OPD, more than half (52.4%) of the participants were satisfied with the way they were treated and cared for while in the hospital and in the present study more than two-thirds (66.9%) of the patients disagreed that the doctor treated them politely. Less than half (43.85%) of the participants indicated they were satisfied with services provided. This is low compared to the present study as

more than half (58.2% ) of the participants were satisfied with services provided. More than one-third (38.2% ) of the participants were satisfied with consultation time. This is low compared to the present study where 63.6% of the participants were satisfied with consultation time. More than half (60% ) of the participants indicated their privacy was respected. This finding is in contrast with the present study where nearly two-thirds (66% ) of the patients said that the doctor did not respect their privacy.

### **5.3.2 Inpatients Satisfaction Level**

In the present study, slightly more than half (54% ) of the inpatients were satisfied with the care they received. This finding concurs with a cross-sectional study conducted in South Africa which reported that slightly more than half (53% ) of the participants were satisfied with the inpatient aspects of the care they received (Malangu & Westhuisen, 2017). A possible explanation for this almost similar finding could be that Botswana and South Africa are both middle-income countries and therefore, their populations have almost the same economic status. The inpatient satisfaction level finding of the present study was lower than 67.5% inpatient satisfaction rate reported at a tertiary hospital in Nigeria (Ogbeyi et al, 2018). In Nigeria health services are paid for largely through out-of-pocket mechanisms and as such patients get maximum value for their money. This could be a possible explanation of satisfaction level of Nigeria being higher than of Botswana where health services are largely paid by the government.

In respect of the individual items of care inpatients received, it is worth noting that more than one-third of the inpatients were reluctant to answer most of the questions. Mensa, Taye, Katene, Abera and Ochare (2017) highlighted the fact that patients may be afraid to state their level of satisfaction when they are still in the ward. Hence, this is the possible explanation for one-third of the patients deciding to remain neutral. However, it is encouraging that more than half of the inpatients were satisfied with all inpatient aspects of the care they received, with the exception of being given an explanation of the purpose for discharge. Less than half (47.5% ) of the inpatients indicated that an explanation for their discharge was not given to them. A possible explanation for this finding is that it is worth noting that the data was collected from the patients who had spent at least two nights in the ward and the majority of them were still admitted to the ward; therefore, this finding should not be a cause for concern. More than a quarter (28.3% ) of patients who agreed that

they had been given an explanation of the purpose for their discharge were discharged and waiting for their medication from the pharmacy.

About half (50.4%) of the inpatients agreed that their privacy was respected. The reason that majority of the patients did not agree their privacy was not respected is, according to Steyl (2020), the environment of the hospital is not conducive to privacy. Most of the rooms have 4 beds, with health care professionals providing services at the bedside. Thus, all the other patients in the room can hear the conversations between the patients and the health care professionals. Few patients (11%) indicated that the duration of wait-time for a bed on arrival at the ward was not reasonable. This is not surprising, and the reason for this low finding is that, when the patient is admitted, communication is made to the ward to prepare for the patient's arrival.

A few of the inpatients (7.7%) indicated that, when they needed help at night, there was no nurse to help them. In addition, a few of the inpatients (11.9%) said that they did not feel safe at night. The reason of these findings is that only a limited number of nurses on night duty are readily available to provide services to the patients. These findings are nearly similar to the findings of a study conducted by Malangu and Westhuisen (2017). In that study, only 13% of the patients disagreed that, when they needed help at night, there was a nurse to help them; while only 9% of the patients disagreed that they felt safe at night. A few of the patients (11%) indicated the duration of wait-time for a doctor after admission was not reasonable. A few of the patients (5%) said that the doctor, accompanied by a nurse, did not make ward rounds. The possible explanation for these low findings is that, daily, there is a doctor who is allocated to the wards. About half (49.2%) of the patients agreed that they did not wait long to get their medication. The reason for the majority of patients not having indicated that it took less time to get their medication is that the wards are always full, with a limited number of nurses on hand to give patients their prescribed medication.

In comparison to the study by Mensa et al (2017), 73% of the participants agreed there was always a nurse to assist them. This is high compared to the present study where more than half (58.1%) agreed there was always a nurse to assist them. More than two-thirds (69%) agreed nurses gave them explanations which is high compared to the present study where 51.3% of the participants indicated they were given explanations by the nurses. More than

half (64%) of the participants indicated nurses listened to their concerns. This is high compared to the present study where more than half (55.1%) of the participants indicated nurses listened to their concerns. About half (50.15%) indicated their privacy was respected. This finding is almost similar to the present study where 50.4% of the participants indicated their privacy was respected. In comparison to the study by Asamrew et al (2020), more than half (55%) agreed their privacy was respected. This is high compared to the present study where half (50.4%) of the inpatients agreed that their privacy was respected.

#### **5.4. ASSOCIATION BETWEEN DEMOGRAPHICS AND LEVEL OF SATISFACTION**

Several studies have shown that the rating of service delivery by patients was influenced by age (He, Li & Bian, 2018; Yu, Li, Xue, Wang, Liu, Chen & Zhang, 2016; Ampiah, Ahenkorah & Karikari, 2019), gender (Yu et al, 2016; Liu, Lu, Wang, Wang, Hou, Tan, Mao, 2018; Liu, Yuan, Liu, Jayasinghe, Harris, 2014) and level of education (He et al, 2018) and employment status (He et al, 2018). In contrast, other studies showed no significant association between gender (Hu, Ding, Hu, Wang, Liu & Liu, 2019; Sun, Hu, Ma, Chen, Wu, Liu, Hu, Livoti, Jiang & Liu, 2017; Ogbeyi et al, 2018) or employment status (Hu et al, 2019) and level of satisfaction. In the present study, with the exception of the employment status of the inpatients, all the variables were not significantly associated with level of satisfaction.

The study revealed that there was no statistically significant association between the age, gender, employment status, level of education of the outpatients and their level of satisfaction; however, those in the age group 50-59 years (48%) were more likely to be dissatisfied. A possible explanation for the situation in which the age group 50-59 is likely to be dissatisfied may be because of the experience of stressful situations, such as having chronic illnesses; or patients may have high expectations of the health care services (Eyasu, Adane, Amdie, Getahun & Biwoda, 2016). Females (36%), unemployed (40%) and those with primary education (59%) were more likely to be dissatisfied. Participants with primary education were more likely to be unemployed and, therefore, have a low socio-economic status. Patients with low economic status are often treated as inferior by health care professionals and their lack of knowledge negatively affects the way they are cared for at the hospital; hence, they are likely to be dissatisfied (Arpey, Gaglioti & Rosenbaum, 2017). In this study, females were more likely to be dissatisfied with service levels than males, which is in contrast to a study by Geberu, Biks, Gebremedhin and Mekonnen (2019). This difference

may be related to cultural variations. The researcher has experienced that males at health facilities are treated better and given better quality health care services compared to females.

In respect of the inpatients, a significantly higher proportion of those employed (62% ) were more likely to be dissatisfied. In addition, those patients in the age group 30-39 and those aged 50-59 years were more likely to be dissatisfied. The reason for these patients being dissatisfied could be that they may have high expectations of the health care services (Eyasu et al, 2016). Admitted females are unlikely to be satisfied because of demands from health care professions, for example, with the little strength patients have patients are expected to exercise (Adjei, Kikuchi, Owusu-Agyei, Enuameh, Shibanuma, Ansah, Yasuoka, Poku-Asante, Okawa, Gyapong, Tawiah, Oduro, Sakeah, Sarpong, Nanishi, Asare, Hodgson & Jimba, 2019). Participants with secondary and tertiary education were likely to be dissatisfied is because they are knowledgeable and not willing to settle for substandard service delivery (Fufa & Negao, 2019).

## **5.5. CONCLUSION**

In conclusion, regardless of the fact that certain aspects of care provided at this hospital were perceived as dissatisfactory, the results of the present study revealed that, overall, more than half of the patients were satisfied with the inpatients and outpatients aspects of the care that they provided with.

## **5.6. RECOMMENDATIONS**

- **Practice**

It is recommended that, in order to have quality service delivery that will increase patient satisfaction, the Botswana health system should work towards having sufficient, ethical, skilled and motivated health care professionals employed in public health institutions. The government needs to improve the conditions of service in the public health sector, which will assist in the retention and motivation of health care professionals. There is need for an intervention to remedy time spent by outpatients in the hospital waiting to receive assistance. Such interventions would promote customer-focused service delivery, which will boost the image of the hospital. With the rapidly growing population of Palapye, there is a need to build another hospital in order to reduce the workload at the facility.

- **Education**

The management of the hospital should routinely assess the patients' satisfaction status and provide on-the-job training to the health care professionals in order to improve their skills, thereby enhancing patients' satisfaction. Education about customer care is crucial to improving patient satisfaction. Professional education should emphasise empathic communication skills and patient centred care. It is important to improve the health literacy of the population so that they have a better understanding and clearer expectations of health care services. Action need to be taken by government, professional bodies, consumer organisations and the media to rebuild patient confidence and trust in health services.

- **Research**

Periodic assessment of health services and further study of other dimensions of patient satisfaction, including facility design dimension, need to be undertaken in order to explore service delivery satisfaction from the user's perspective.

## **5.7. LIMITATIONS OF THE STUDY**

This study has several limitations: Firstly, the assessment of patient satisfaction was undertaken with regard to services provided by the doctors and nurses only; therefore, the study did not investigate the satisfaction of patients with the basic amenities and services that are provided by the other health care professionals. Secondly, the inpatients were may be afraid to express their perceptions about the services they received while in the ward, which might have affected the overall inpatient satisfaction level. Thirdly, the sampling frame per unit was not established, therefore data collected may not be a representative of each unit. Lastly, doctors and nurses may also increase their care during data collection, which may have inflated the findings of the study.



## REFERENCES

Adhikary, G, Shawon, MSR, Ali, MW, Shamsuzzaman, M, Ahmed, S, Shackelford, KA, Woldeab, A, Alam, N, Lim, SS, Levine, A, Gakidou, E & Uddin, MJ. 2018. Factors influencing patients' satisfaction at different levels of health facilities in Bangladesh: Results from patient exit interviews. *PloS One* 13 (5).

Adjei, KK, Kikuchi, K, Owusu-Agyei, S, Enuameh, Y, Shibanuma, A, Ansah, EK, Yasuoka, J, Poku-Asante, K, Okawa, S, Gyapong, M, Tawiah, C, Oduro, AR, Sakeah, E, Sarpong, D, Nanishi, K, Asare, GQ, Hodgson, A & Jimba, M. 2019. Women's overall satisfaction with health facility delivery services in Ghana: A mixed-methods study. *BioMed Central Health Services Research* 47 (41).

Ahmed, T, Assefa, N, Demisie, A & Kenay, A. 2014. Levels of adult patients' satisfaction with nursing care in selected public hospitals in Ethiopia. *International Journal of Health Sciences* 8 (4): 371-379.

Akaranga, SI & Makau, BK. 2016. Ethical considerations and their applications to research: a case of the University of Nairobi. *Journal of Educational Policy and Entrepreneurial Research* 3 (12): 1-9.

Akinyika, MR, Oluwole, EO & Odusanya, OO. 2019. Community Perception of Quality of Health Care received and Client Satisfaction in Lagos, Nigeria. *Journal of Community Medicine and Primary Health Care* 31 (2): 47-65.

Akuamoah-Boateng, J. Patients' satisfaction and its determinants in outpatient and inpatient departments of tertiary hospital in Ghana: Case study of Greater Accra Regional hospital. *Texila International Journal of Academic Research* 6 (2).

Albers, MJ. 2017. Quantitative data analysis in the graduate curriculum. *Journal of Technical Writing and Communication* 47 (2): 215-233.

Allen, M. 2017. *The sage encyclopaedia of communication research*. Thousand Oaks, CA: SAGE Publications 1-4.

Al Tajir, GK. 2018. Ethical treatment of participants in public health research. *Journal of Public Health and Emergency* 2 (1).

Althubaiti, A. 2016. Information bias in health research: definition, pitfalls, and adjustment methods. *Journal of Multidisciplinary Healthcare* 9.

- Ampiah, PK, Ahenkorah, J & Karikari, M. 2019. Patients' satisfaction with inpatient orthopaedic physiotherapy services at a tertiary hospital in Ghana. *Journal of Patient Experience* 6 (3): 238-246.
- Arpey, NC, Gaglioti, AH & Rosenbaum, ME. 2017. How socioeconomic status affects patient perceptions of health care: A qualitative study. *Journal of Primary Care & Community Health* 8 (3): 169-175.
- Asamrew, N, Endris, AA & Tadesse, M. 2020. Level of patient satisfaction with inpatient services and its determinants: A study of a specialized hospital in Ethiopia. *Journal of Environmental and Public Health*.
- Bell, ML, Whitehead, AL & Julious, SA. 2018. Guidance for using pilot studies to inform the design of intervention trials with continuous outcomes. *Journal of Clinical Epidemiology* 10: 153-157.
- Bertakis, KD, Azari, R, Helms, LJ, Callahan EJ & Robbins, JA. 2000. Gender differences in the utilisation of health care services. *The Journal of Family Practice* 49 (2): 147-152.
- Bland, KI, Copeland, EM, Klimberg, VS & Gradishar, WJ. 2018. *The Breast: Comprehensive Management of Benign and Malignant*: 5<sup>th</sup> edition.
- Blitchok, A. 2018. *Proposed RN Ratios- What You Can Do About It*.  
From: <https://nurse.org/articles/federal-staffing-ratios> (accessed 6 June 2019).
- Botswana. 1995. *Nurses and Midwifery Act. no. 1. 1995*. Gaborone: Government Printer.
- Botswana. 2001. *Botswana Health Professionals Act. no. 2. 2001*. Gaborone: Government Printer.
- Brydsen, A, Hammarstrom, A & Sebastian, MS. 2018. Health inequalities between employed and unemployed in northern Sweden: A decomposition analysis of social determinants for mental health. *International Journal for Equity in Health* 17 (59).
- Bryman, A. 2015. *Social Research Methods*. 5<sup>th</sup> Edition. Online Resource Centre. Oxford University Press.
- Central Statistics Office, 2019. *Botswana Core Welfare Indicator Survey 2009-2010*.
- Chandra, S, Ward, P & Mohammadnezhad, M. 2019. Factors associated with patient satisfaction in outpatient department of Suva sub divisional health centre, Fiji, 2018: A mixed method study. *Journal Frontiers in Public Health* 7 (183).

Crossman, A. 2019. *Pilot study in research*.

From: <https://www.thoughtco.com/pilot-study-3026449> (accessed 10 July 2020).

Cui, C, Zuo, X, Wang, Y, Song, H, Shi, J & Meng, K. 2020. A comparative study of patients' satisfaction with different levels of hospitals in Beijing: why do patients prefer high level hospitals? *BioMed Central Health Services Research* 20: 643.

Declaration of Helsinki. 1964. *18<sup>th</sup> Assembly of the World Medical Association in Helsinki, Finland June in 1964, amended by the 29<sup>th</sup> World Medical Assembly, Tokyo, Japan, October 1975 and the 35<sup>th</sup> World Medical Assembly, Venice, Italy, October 1983*.

Dixon, S & Quirke, L. 2018. What's the harm? The coverage of ethics and harm avoidance in research methods textbooks. *Teaching Sociology* 46(1): 12-24.

Drabble, L, Trocki, KF, Salcedo, B, Walker, PC & Korcha, RA. 2016. Conducting qualitative interviews by telephone: Lessons learned from a study of alcohol use among sexual minority and heterosexual women. *Qualitative Social Work: Research and Practice* 15 (1): 118-133.

Dudovskiy, J. 2018. *The Ultimate Guide to Writing a Dissertation in Business Studies: a step by step approach Assistance*.

From: <https://research-methodology.net/product/the-ultimate-guide-to-writing-a-dissertation-in-business-studies-a-step-by-step-assistance-january-2018-edition/> (accessed 25 August 2020).

Eyasu, KH, Adane, AA, Amdie, FZ, Getahun, TB & Biwota, MA. 2016. Adult patients' satisfaction with inpatient nursing care and associated factors in Ethiopian Referral Hospital, Northeast Ethiopia. *Hindawi: Advances in Nursing* 2016.

Eze, P. 2017. Marketing, targeting and fundraising of public universities in Anambra State. *Journal of Policy and Development Studies* 11 (1).

Farahani, M, Price, N, El-Halabi, S, Mlaudzi, N, Keapoletswe, K & Lebelonyane, R. 2016. Impact of Health System inputs on Health Outcome: A Multilevel Longitudinal Analysis of Botswana National Antiretroviral Programme (2002- 2013). *PLoS One* 11 (8).

Flanagin, A, Bauchner, H & Fontanarosa, PB. 2020. Patient and study participant rights to privacy in journal publication. *Journal of the American Medical Association* 323 (21): 2147-2150.

Feinberg, I, Frijters, J, Johnson-Lawrence, V, Greenberg, D, Nightingale, E & Moodie, C. 2016.

Examining associations between health information seeking behavior and adult education in the United States: An analysis of the 2012 Program for International Assessment of Adult Competencies Data. *PloS One* 11 (2).

Fufa, BD & Negao, EB. 2019. Satisfaction of outpatient service consumers and associated factors towards the health service at Jimma Medical Centre, South West Ethiopia. *Patient Related Outcome Measures* 10: 347-354.

Galdas, P. 2017. Revisiting bias in qualitative research: Reflections on its relationship with funding and impact. *International Journal of Qualitative Methods*.

Geberu, DM, Biks, GA, Gebremedhin, T & Mekonnen, TH. 2019. Factors of patient satisfaction in adult outpatient departments of private wing and regular services in public hospitals of Addis Ababa, Ethiopia: a comparative cross-sectional study. *BioMed Central Health Services Research* 19: 869.

Gebreyesus, A. 2019. Determinants of client satisfaction with family planning services in public health facilities of Jigjiga town, Eastern Ethiopia. *BioMed Central Health Services Research* 19: 618.

Govender, N & Suleman, F. 2019. Comparison of patient satisfaction with pharmaceutical services of postal pharmacy and community pharmacy. *Health South Africa Gesondheid* 24 (0).

Hanekom, S. 2018. *The importance of ethical clearance in research*.

From: <https://www.usb.ac.za/usb> (accessed 16 June 2020).

He, X, Li, L & Bian, Y. 2018. Satisfaction survey among primary health care outpatients in the backward region: an empirical study from rural Western China. *Patient Preference and Adherence* 12: 1989-1996.

Heale, R & Twycross, A. 2015. Validity and reliability in quantitative studies. *British Medical Journal: Evidence Based Nursing* 18 (3): 66-67.

Howard, C. 2019. Understanding probability vs non-probability sampling: Definitive Guide.

From: [https://www.cvent.com/en/blog/hospitality/understanding\\_probability\\_vs\\_non-probability\\_sampling](https://www.cvent.com/en/blog/hospitality/understanding_probability_vs_non-probability_sampling) (accessed 27 July 2021).

- Hu, L, Ding, H, Hu, G, Wang, Z, Liu, S & Liu, Y. 2019. How perceived quality of care affects outpatient satisfaction in China: A cross-sectional study of 136 tertiary hospitals. *Inquiry: The Journal of Health Care* 56: 1-8.
- Hu, L, Zhou, BP, Liu, S, Wang, Z & Liu, Y. 2019. Outpatient satisfaction with tertiary hospitals in China: The role of sociodemographic characteristics. *International Journal of Environmental Research and Public Health* 16 (19): 3518.
- Joseph, B. & Joseph, M. 2016. The health of the health care workers. *Indian Journal of Occupational and Environmental Medicine* 20 (2): 71-72.
- Joshi, S & Joshi, MK. 2017. A study on patient satisfaction in out patient department of secondary care hospital of Bhopal. *International Journal of Community Medicine & Public Health* 4 (4): 1141-1147.
- Kumar, R & Pal, R. 2018. India achieves WHO recommended doctor population ratio: A call for paradigm shift in public health discourse! *Journal of Family Medicine and Primary Care* 7 (5): 841-844.
- Liu, X, Lu, H, Wang, Y, Wang, W, Hou, Z, Tan, A & Mao, Z. 2018. Factors affecting patient satisfaction with ecdemic medical care: a cross-sectional study in Nanchang, China. *Patient Preference and Adherence* 12: 1373-1382.
- Liu, Y, Yuan, Z, Liu, Y, Yayasinghe, UW & Harris, MF. 2014. Changing community health service delivery in economically less-developed rural areas in China: impact on service use and satisfaction. *British Medical Journal* 4.
- Malangu, N & Westhuisen, J. 2017. Patients' satisfaction with inpatient and outpatient aspect of care delivered at a district hospital in Pretoria. *Pula: Botswana Journal of African Studies* 31 (2).
- Manti, S & Licari, A. 2018. How to obtain informed consent for research. *Breathe* 14(2): 145-152.
- McCombes, S. 2019. *How to write a literature review*.  
From: <https://www.scribbr.com/dissertation/literature-review> (accessed 9 July 2020).
- McLeod, SA. 2014. *Sampling methods*.  
From: <https://www.simplypsychology.org/sampling.htm> (accessed 7 May 2019).
- Mensa, M, Taye, A, Katene, S, Abera, F & Ochare, O. 2017. Determinants of patient

satisfaction towards inpatient nursing services and its associated factors in Gamo Gofa Zone, Southern, Nations, Nationality and People Regional state (SNNPR), Ethiopia, April 2017. *MOJ Clinical & Medical Case Reports* 7 (3): 238-247.

Mukamba, N, Chilyabanyama, ON, Beres, LK, Simbeza, S, Sikombe, K, Padian, N, Holmes, C, Sikazwe, I, Geng E & Schwartz, SR. 2019. Patients' satisfaction with HIV care providers in public health facilities in Lusaka: A study of patients who were lost to follow up from HIV care and treatment. *Springer Nature* 24: 1151-1160.

Nkomazana, O. 2017. *Determining the causes for the shortage of human resources for primary health care in Botswana and developing a pilot intervention to address the problem*. PHD Thesis. Stellenbosch University.

Nkomazana, O, Mash, R & Phaladze, N. 2015. Understanding the organisational culture of district health services: Mahalapye and Ngamiland health districts of Botswana. *African Journal of Primary Health Care & Family Medicine* 7(1): 907.

Nkomazana, O, Mash, R, Shaibu, S & Phaladze, N. 2015. Stakeholders' perceptions on shortage of healthcare workers in primary healthcare in Botswana: Focus group discussions. *PloS One* 10 (8).

Nkurumah, S, Yeboah, FB & Adiwokor, E. 2015. Client satisfaction with service delivery in the health sector: The case of Agogo Presbyterian Hospital. *International Journal of Business Administration* 6(4).

Nguyen, ATB, Nguyen, NTK, Phan, PH, Eeuwijk, P & Fink, G. 2020. Parental satisfaction with quality of neonatal care in different levels hospital: evidence from Vietnam. *BioMed Central Health Services Research* 20: 238.

Nunan, D, Bankhead, C & Aronson JK, 2017. *Selection bias. Catalog of bias*.

From: <http://www.catagofbias.org/biases/selection-bias> (accessed 25 April 2019).

Ochonye, B, Folayan, MO, Fatusi, AO, Emmanuel, G, Adepoju, O, Ajidagba, B, Jaiyebo, T, Umoh, P & Yusuf, A. 2019. Satisfaction with use of public health and per led facilities for HIV prevention services by key populations in Nigeria. *BioMed Central Health Services Research* 19: 856.

Ogbeyi, OG, Adekwu A & Amede, PO. 2018. Assessing the level of clients' satisfaction on outpatient and inpatient health care services in a tertiary institution in North Central Nigeria. *International Journal of Contemporary Research* 5 (3).

Oluchi, SF. 2018. Compensation strategy and corporate performance of telecommunication firms in Rivers State. *International Journal of Advanced Academic Research* 4 (1).

Ontebetse, K. 2020. United Nations questions Botswana's Covid-19 preparedness. *Sunday Standard*. 24 May.

Osahon, OJ & Kingsley, O. 2016. Statistical approach to the link between internal service quality and employee job satisfaction: A case study. *American Journal of Applied Mathematics and Statistics* 4(6): 178-184.

Peluso, MJ, Tapela, N, Langeveldt, J, Williams, ME, Mochankana, K, Motseosi, K, Ricci, B, Rodman, A, Haverkamp, C, Maoto, R, Lockett, R, Prozesky, D, Nkomazana, O & Barak, T. 2018. Building Health System Capacity through Medical Education: A Targeted Needs Assessment to Guide Development of a Structured Internal Medicine Curriculum for Medical Interns in Botswana. *Annals of Global Health* 84 (1): 151-159.

Setia, MS. 2016. Methodology Series Module 3: Cross-Sectional Studies. *Indian Journal of Dermatology* 61 (3): 261-264.

Seitio-Kgokgwe, O, Gauld, RD, Hill, PC & Barnett, P. 2016. Analysing the stewardship functions in Botswana's health system: Reflecting on the past, looking to the future. *International Journal of Health Policy and Management* 5(12): 705-713.

Sharma, G. 2017. Pros and cons of different sampling techniques. *International Journal of Applied Research* 3(7): 749-752.

Statistics Botswana, 2015. *Population and housing census 2011, analytical report*. Republic of Botswana.

Statistics Botswana, 2018. *Botswana Demographic Survey Report 2017*. Republic of Botswana.

Stefanovska, VV, Stefanovska-Petkovska, M, Bojadziev, M & Bojadzieva, S. 2017. Investigation of drivers and determinants of inpatient and outpatient satisfaction in public ambulatory and hospital departments. *Universal Journal of Public Health* 5 (4): 141-150.

Steyl, T. 2020. Satisfaction with quality of health care at a primary health care settings: Perspectives of patients with type 2 diabetes mellitus. *South African Journal of Physiotherapy*. 76 (1).

Sun, J, Hu, G, Ma, J, Chen, Y, Wu, L, Liu, Q, Hu, J, Livoti, C, Jiang, Y & Liu, Y. 2017. Consumer

satisfaction with tertiary health care in China: findings from 2015 China National Patient Survey. *International Journal for Quality in Health Care* 29 (2): 213-221.

Swanka, C. 2019. Health ministry ails with shortage of nurses. *Sunday standard*. 11 August.

Taherdoost, H. 2016. Sampling methods in research methodology; how to choose a sampling technique for research. *International Journal of Academic Research in Management* 5 (2): 18-27.

Thewes, B, Rietjens, JAC, Van den Berg, SW, Compen, FR, Abrahams, H, Poort, H, Van de Wal, M, Schellekens, MPJ, Peters, MEWJ, Speckens, AEM, Knoop, H & Prins, JB. 2018. One way or another: The opportunities and pitfalls of self-referral and consecutive sampling as recruitment strategies for psycho-oncology intervention trials. *Psycho-oncology*. 27: 2056-2059.

Valdes, O. 2020. What is a literature review?

From: [Thoughtco.com/literature-review-research](https://Thoughtco.com/literature-review-research) (accessed 17 December 2020).

Vidler, M, Ramadurg, U, Charantimath, U, Katageri, G, Karadiguddi, C, Sawchuck, D, Qureshi, R, Dharamsi, S, Joshi, A, Dadelszen, P, Derman, R, Bellad, M, Goudar, S & Mallapur, A. 2016. Utilisation of maternal health care services and their determinants in Karnataka State, India. *BioMed Central Health Services Research* 13 (37).

Wei, J, Wang, X, Yang, H & Yang, T. 2015. Development of an In-Patient Satisfaction Questionnaire for the Chinese Population. *PloS One* 10 (12).

Whitehead, AL, Julious, SA, Cooper, CL & Campbell, MJ. 2016. Estimating the sample size for randomised trial to minimise the overall trial sample size for the external pilot and main trial for a continuous outcome variable. *Statistical Methods in Medical Research* 25 (3): 1057-1073.

Wirth, KE, Semo, B, Spees, LP, Ntsuape, C, Barnhart, S, Ledikwe, JH. 2017. A prospective cohort study of safety and patient satisfaction of voluntary medical male circumcision in Botswana. *PloS One* 12 (11).

World Bank. 2020. *World Development Indicators: Botswana school enrolment, tertiary: 1970-2019*.

From: <https://tradingeconomics.com/botswana/school-enrollment-tertiary-percent-gross-wb-data.html> (accessed 8 December 2020).

World Health Organization. 2019. *Health systems service delivery*.



World Health Organization. 2016. *Meeting Report: Technical Definitions of Shortages and Stockouts of Medicines and Vaccines*.

Xinhua. 2020. Botswana makes mask-wearing in public compulsory. *Xinhuanet*, 1 May.

Yu, W, Li, M, Xue, C, Wang, J, Liu, J, Chen, H & Zhang, L. 2016. Determinants and influencing mechanisms of outpatient satisfaction: a survey on tertiary hospitals in the People's Republic of China. *Patient Preference and Adherence* 10: 601-612.

Zajacova, A & Lawrence, EM. 2018. The relationship between education and health: Reducing disparities through a contextual approach. *Annual Review of Public Health* 39: 273-289.

Zhang, J, Yang, L, Wang, X, Dai, J, Shan, W & Wang, J. 2020. Inpatient satisfaction with nursing care in a backward region: a cross-sectional study from northwestern China. *British Medical Journal Open* 10 (9).

**Appendix 1. ENGLISH QUESTIONNAIRE  
PATIENT SATISFACTION SURVEY**

UNIT.....

**DEMOGRAPHIC DETAILS**

1. Age in years.....

2. Gender

Male	
Female	

3. Employment status

Employed		Unemployed		Student	
----------	--	------------	--	---------	--

4. Education level

None		Primary		Secondary		Tertiary	
------	--	---------	--	-----------	--	----------	--

	OUTPATIENTS	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
5	The outpatient/ casualty department has convenient hours of opening					
6	The doctor who treated me was polite					
7	The nurse who treated me was polite					
8	I was pleased with the way I was treated at the hospital					
9	The doctor explained to me what was wrong with me					
10	The nurse explained to me what was wrong with me					
11	The doctor respected my privacy					
12	The nurse respected my privacy					
13	Next time I am ill I will come back here					
14	Satisfied with doctor's expertise/ skill					
15	Satisfied with nurse's expertise/ skill					
16	Reasonable waiting time to be assisted					
17	Satisfied with the services provided					
18	I have confidence on doctors					
19	I have confidence on nurses					
20	Time taken for consultation was good					
21	Explanation about my condition was good					
22	The doctor who attended me showed sense of concern					
23	The nurse who attended me showed sense of concern					

	INPATIENTS (patients who spent at least two nights in the hospital)	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
24	I was given explanation					

	of the hospital routine and procedures					
25	The doctor who treated me listened to my problems					
26	The nurse who treated me listened to my problems					
27	The doctor who treated me was polite					
28	The nurse who treated me was polite					
29	I was pleased with the way I was treated at the hospital					
30	The doctor explained to me what was wrong with me					
31	The nurse explained to me what was wrong with me					
32	My privacy was respected					
33	If I received medicines/ pills I did not wait long for them					
34	The duration of wait-time for a bed on arrival was reasonable					
35	Visiting hours are long enough					
36	Doctors answered all my questions about my illness					
37	Nurses answered all my questions about my illnesses					
38	When I needed help at night, there was always a nurse to help me					
39	I felt safe at night					
40	The duration of wait-time for doctor after admission was reasonable					
41	The doctor with the nurse made ward rounds					
42	Satisfied with doctor's expertise/ skill					
43	Satisfied with nurse's expertise/ skill					
44	Satisfied with services provided					
45	Explanation of the purpose of discharge given to me					

**Appendix 2. TSWANA QUESTIONNAIRE (POTSOLOTSO)**

**TSHEKATSHEKO YA KGOTSOFALO YA BADIRISI**

LEPHATA.....

**KA GA YO O BOTSWANG**

1. DINGWAGA

2. BONG

MONNA	
MOSADI	

3. TIRO YA YO BOTSWANG

KE A BEREKA		GA KE BEREKE		NGWANA WA SEKOLO	
-------------	--	--------------	--	------------------	--

4. SEELO SA THUTO

GA KE A TSENA SEKOLO		SEKOLO SE SE POTLANA		SEKOLO SE SE GOLWANE		SEKOLO SA ITHUTELO DITIRO	
----------------------	--	----------------------	--	----------------------	--	---------------------------	--

	BALWETSI BA BA ETELANG SEPATELA	GA KE DUMALANE THATA	GA KE DUMALANE	GA KENA TLHOMAMISO	KE A DUMALANA	KE A DUMALANA THATA
5	Dinako tsa go bula mo sepatela di siame					
6	Ngaka yo o ne a nthusa o nale botho					
7	Mooki yo o neng a nthusa o nale botho					
8	Ke itumeletse ka fa ke tshwerweng ka teng mo sepatela					
9	Ngaka o nthaloseditse gore bothata jame e ne e le eng					
10	Mooki o nthaloseditse gore bothata jame e ne e le eng					
11	Ngaka o ne a thompha diphiri tsame					
12	Mooki o ne a thompha diphiri tsame					

13	Ke tla boela kwano gape mo nakong e tlang					
14	Ke kgotsofalela boitseanepe ja bongaka					
15	Ke kgotsofalela boitseanepe ja booki					
16	Ke kgotsofalela nako ya go letla gore ke bone thuso					
17	Ke itumetsetse ka ditirelo tse ke di filweng					
18	Ke nale tshepo mo dingakeng					
19	Ke nale tshepo mo balking					
20	Nako e tserweng ka nako ya itekodiso e siame					
21	Tlhaloso ka seemo/ botsogo e siame					
22	Ngaka yo o ne a nthusa o ne a supa kgatlhalo					
23	Mooki yo o neng a nthusa o ne a supa kgatlhalo					

	BALWETSI BA BA ROBADITSWEN G	GA KE DUMALANE THATA	GA KE DUMALANE	GA KENA TLHOMAMISO	KE A DUMALANA	KE A DUMALANA THATA
24	Ke boleletswe ka ditsamaiso tsa sepatela					
25	Ngaka yo o neng a nthusa o ne a reetsa mathata ame					
26	Mooki yo o neng a nthusa o ne a reetsa mathata ame					
27	Ngaka yo o neng a nthusa nale botho					
28	Mooki yo o neng a nthusa o nale botho					

29	Ke itumeletse ka ha ke tshwerweng ka teng mo sepatela					
30	Ngaka o ne a tlhalosa ka botlalo gore bothata jame e ne e le eng					
31	Mooki o ne a tlhalosa ka botlalo gore bothata jame e ne e le eng					
32	Dikgang tsame tsa sephiri di ne tsa tlhomphiwa					
33	Fa ke tshwanetse go fiwa melemo e ne e sa diege go tlisiwa					
34	Nako ya go letela bolao ha ke robadiwa e ne e siame					
35	Dinako tsa go tlhola di lekanetse sente					
36	Bongaka ba arabile dipotso tsame tsothe ka bolwetsi					
37	Baaki ba arabile dipotso tsame tsothe ka bolwetsi					
38	Fa ke thoka thuso bosigo go ne go nna go nale mooki yo thusang					
39	Ke ne ke ikutlwa ke babalesegile bosigo					
40	Nako e ke tsereng go bonwa ke Ngaka ke sena go robadiwa e siame					
41	Ngaka le mooki ba ne ba tsaya ditikologo mo diphaposing tsa balwetsi					
42	Ke kgotsofalela boitseanape/ kitso ya bongaka					
43	Ke kgotsofalela boitseanape/ kitso ya baaki					
44	Ke kgotsofaletso ditirelo tse ke di amogetseng					
45	Ke filwe tlhaloso					

	ya go ntshiwa gape mo sepatela					
--	-----------------------------------	--	--	--	--	--

## Appendix 3: ETHICAL CLEARANCE CERTIFICATE



**University of Limpopo**  
Department of Research Administration and Development  
Private Bag X1106, Sovenga, 0727, South Africa  
Tel: (015) 268 2035, Fax: (015) 268 2396, Email: anastasia.ngobe@ul.ac.za

**TURFLOOP RESEARCH ETHICS COMMITTEE**  
**ETHICS CLEARANCE CERTIFICATE**

**MEETING:** 10 July 2020

**PROJECT NUMBER:** TREC/145/2020- PG

**PROJECT:**

**Title:** Patient Satisfaction Regarding Service Delivery at A Hospital in Botswana  
**Researcher:** ZK Khuwa  
**Supervisor:** Prof SP Matlala  
**Co-Supervisor/z:** Dr TS Ntuli  
**School:** Health Care Sciences  
**Degree:** Master of Public Health

**PROF P MASOKO**  
**CHAIRPERSON: TURFLOOP RESEARCH ETHICS COMMITTEE**

The Turfloop Research Ethics Committee (TREC) is registered with the National Health Research Ethics Council, Registration Number: REC-0210411-021

**Note:**

- i) This Ethics Clearance Certificate will be valid for one (1) year, as from the abovementioned date. Application for annual renewal (or annual review) need to be received by TREC one month before lapse of this period.
- ii) Should any departure be contemplated from the research procedure as approved, the researcher(s) must re-submit the protocol to the committee, together with the Application for Amendment form.
- iii) PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES.



**Appendix 4: LETTER REQUESTING PERMISSION FROM MINISTRY OF HEALTH**

Po Box 11108

Tatitown

Francistown

05 August 2020

Health Research Unit  
Ministry of Health  
Private Bag 0038  
Gaborone

Dear Sir/ Madam

**APPLICATION TO SEEK PERMISSION TO CONDUCT STUDY**

I am kindly requesting for a permission to conduct a study at Palapye Primary Hospital where I am currently based working as a Professional Nurse.

I am a Master of Public Health at University of Limpopo, South Africa. The title of my study is Patient satisfaction regarding to service delivery at a hospital in Botswana. The aim of the study is to investigate the level of patient satisfaction regarding service delivery at a hospital in Botswana.

Attached with this letter are my research proposal, data collection tool and a copy of ethical clearance certificate from Turflop Research Ethics Committee at University of Limpopo.

If you have questions regarding my study feel free to contact me on 71735081/ 74614110 or email [Zibokitso2016@yahoo.com](mailto:Zibokitso2016@yahoo.com).

Yours faithfully  
Zibo Kitso Khuwa

.....

## Appendix 5: PREMISSION FROM MINISTRY OF HEALTH

PRIVATE BAG 0038  
GABORONE  
BOTSWANA  
REFERENCE:



REPUBLIC OF BOTSWANA

TEL: (+267) 363 2500  
FAX: (+267) 391 0647  
TELEGRAMS: RABONGAKA  
TELEX: 2818 CARE BD

MINISTRY OF HEALTH AND WELLNESS

REFERENCE NO: HPDME 13/18/1 VI (25)

24 August 2020

Health Research and Development Division  
Notification of IRB Review: **New application**

Zibo Kitso Khuwa  
Po Box 11108  
Tatitown  
Francistown

Dear Zibo Kitso Khuwa  
Nkeletsang Khuwa Keipatetse

**Protocol Title: PATIENT SATISFACTION REGARDING SERVICE DELIVERY  
AT A HOSPITAL IN BOTSWANA.**

HRU Approval Date:	24 August 2020
HRU Expiration Date:	23 August 2021
HRU Review Type:	Expedited Review
HRU Review Determination:	Approved
Risk Determination:	Minimal risk

Thank you for submitting new application for the above referenced protocol. The permission is granted to conduct the study.

This permit does not however give you authority to collect data from the selected sites without prior approval from the management. Consent from the identified individuals should be obtained at all times.

The research should be conducted as outlined in the approved proposal. Any changes to the approved proposal must be submitted to the Health Research and Development Division in the Ministry of Health for consideration and approval.

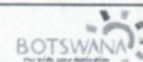
Furthermore, you are requested to submit at least one hardcopy and an electronic copy of the report to the Health Research, Ministry of Health and Wellness within 3 months of completion of the study. Approval is for academic fulfillment only. Copies should also be submitted to all other relevant authorities.

### **Continuing Review**

In order to continue work on this study (including data analysis) beyond the expiry date, submit a Continuing Review Form for Approval at least three (3) months prior to the

**Vision:** *A Healthy Nation by 2036.*

**Values:** *Botho, Equity, ™elliness, Customer Focus, Teamwork, Accountability*



protocol's expiration date. The Continuing Review Form can be obtained from the Health Research Division Office (HRDD), Office No. 7A.7 or Ministry of Health website: [www.moh.gov.bw](http://www.moh.gov.bw)

or can be requested via e-mail from Mr. Kgomotso Motlhanka, e-mail address: [kgmmotlhanka@gov.bw](mailto:kgmmotlhanka@gov.bw) As a courtesy, the HRDD will send you a reminder email about eight (8) weeks before the lapse date, but failure to receive it does not affect your responsibility to submit a timely Continuing Report form

#### **Amendments**

During the approval period, if you propose any change to the protocol such as its funding source, recruiting materials, or consent documents, you must seek HRDC approval before implementing it. Please summarize the proposed change and the rationale for it in the amendment form available from the Health Research Division Office (HRDD), Office No. 7A 7 or Ministry of Health website: [www.moh.gov.bw](http://www.moh.gov.bw) or can be requested via e-mail from Mr. Kgomotso Motlhanka, e-mail address: [kgmotlhanka@gov.bw](mailto:kgmotlhanka@gov.bw) . In addition submit three copies of an updated version of your original protocol application showing all proposed changes in bold or "track changes".

#### **Reporting**

Other events which must be reported promptly in writing to the HRDC include:

- Suspension or termination of the protocol by you or the grantor
- Unexpected problems involving risk to subjects or others
- Adverse events, including unanticipated or anticipated but severe physical harm to subjects.

If you have any questions please do not hesitate to contact Mr Kgomotso Motlhanka at [kgmotlhanka@gov.bw](mailto:kgmotlhanka@gov.bw) at 3632751. Thank you for your cooperation and your commitment to the protection of human subjects in research.

Yours faithfully

  
Ms S. Mosweunyane  
for PERMANENT SECRETARY



**Appendix 6: LETTER REQUESTING PERMISSION FROM THE HOSPITAL**

Po Box 11108

Tatitown

Francistown

05 August 2020

The management  
Palapye Primary Hospital  
Po Box 31  
Palapye

Dear Sir/ Madam

**APPLICATION TO SEEK PERMISSION TO CONDUCT STUDY**

I am kindly requesting for a permission to conduct a study at Palapye Primary Hospital where I am currently based working as a Professional Nurse.

I am a Master of Public Health at University of Limpopo, South Africa. The title of my study is Patient satisfaction regarding to service delivery at a hospital in Botswana. The aim of the study is to investigate the level of patient satisfaction regarding service delivery at a hospital in Botswana.

Attached with this letter are my research proposal, data collection tool and a copy of ethical clearance certificate from Turflop Research Ethics Committee at University of Limpopo.

If you have questions regarding my study feel free to contact me on 71735081/ 74614110 or email [Zibokitso2016@yahoo.com](mailto:Zibokitso2016@yahoo.com).

Yours faithfully  
Zibo Kitso Khuwa



.....  
Appendix 7: PERMISSION FROM THE HOSPITAL

TEL: 4923049  
PALAPYE DHMT  
FAX: 4921281  
TELEGRAMS:  
TELEX:



P O BOX 31  
PALAPYE

Republic of Botswana  
Ministry of Health and Wellness

---

REFERENCE NO: PDHMT PF/42 I (59)


TO: Zibo Kitso Khuwa  
Po. Box 11108  
Tati Town  
Francistown, Botswana

Dear Zibo Kitso Khuwa

**RESEARCH PROPOSAL: SERVICE DELIVERY AT HOSPITAL IN  
BOTSWANA**

Your request to do a study in Palapye DHMT has been granted. This will only apply if you follow instructions from Ministry of Health and Wellness as permit Ref No HPDME 13/18/1 VI (25)

Yours Faithfully

  
Dr. Cosmas Assenga  
Chief Medical Officer  
Palapye DHMT

**Appendix 8: ENGLISH INFORMED CONSENT**

**UNIVERSITY OF LIMPOPO ENGLISH CONSENT FORM**

Statement concerning participation in a Research Project.

**Name of Study:** Patient satisfaction regarding to service delivery at a hospital in Botswana.

I have heard the aims and objectives of the proposed study and was provided the opportunity to ask questions and given adequate time to rethink the issue. The aim and objectives of the study are sufficiently clear to me. I have not been pressurized to participate in any way. I am aware that this material may be used in scientific publications which will be electronically available throughout the world. I consent to this provided that my names are not revealed.

I understand that participation in this Study is completely voluntary and that I may withdraw from it at any time and without supplying reasons. This will have no influence on the regular treatment that holds for my condition neither will it influence the care that I receive from my regular doctors and nurses in Palapye Primary Hospital.

I know that this Study has been approved by the Turflop Research Ethics Committee (TREC), University of Limpopo. I am fully aware that the results of this Study will be used for scientific purposes and may be published.

I agree to this, provided my privacy is guaranteed.

I hereby give consent to participate in this Study.

.....

Name of participant.

.....

Signature

.....

Place

.....

Date

.....

Statement by the Researcher

I provided verbal information regarding this Study.

I agree to answer any future questions concerning the Study as best as I am able.

I will adhere to the approved protocol.

.....

Name of Researcher

.....

Signature

.....

Place

.....

Date

.....

## Appendix 9: SETSWANA CONSENT FORM

### UNIVERSITY OF LIMPOPO SETSWANA CONSENT FORM

Seteitemente se se ka ga go tsaya karolo mo Porojeke ya Patlisiso.

**Leina la Patlisiso:** Tshekatsheko ya kgotsofalo ya badirisi ba sepatela sa Palapye mabapi le ditirelo.

Ke utlwile maitlhommo le maikemisetso patlisiso e mme e bile ke filwe tshono ya go botsa dipotso le go fiwa nako e e lekaneng ya go akanya gape ka ntlha e. Maitlhommo le maikemisetso a patlisiso e a tlhaloganyega sentle. Ga ke a patelediwa ke ope ka tsela epe go tsaya karolo.

Ke tlhaloganya gore go tsaya karolo mo Patlisiso ke boithaopo le gore nka ikgogela morago mo go yona ka nako nngwe le nngwe kwa ntle ga go neela mabaka. Se ga se kitla se nna le seabe sepe mo kalafong ya me ya go le gale ya bolwetsi jo ke nang le jona e bile ga se kitla se nna le tlhotlheletso epe mo tlhokomelong e ke e amogelang mo ngakeng le mooki ya go le gale.

Ke a itse gore Patlisiso e e rebotse ke Patlisiso le Molao wa Maitsholo wa Turflop Research Ethics Committee (TREC), Yunibesithi ya Limpopo. Ke itse ka botlalo gore dipholo/ maduo tsa Patlisiso di tla dirisetswa mabaka a saentifiki e bile di ka nna tsa phatlaladiwa. Ke dumelana le seno, fa fela go netefadiwa gore se e tla nna khupamarama.

Fano ke neela tumelelo ya go tsaya karolo mo Patlisiso e.

Leina ka molwetse/ motsaya karolo

.....

Monwana/ Tshaeno

.....

Lefelo

.....

Letsatsi



.....

Seteitemente ka Mmatlisisi

Ke tlametse tshedimosetso ka molomo le/kgotsa e e kwadilweng malebana le Patlisiso e.  
Ke dumela go araba dipotso dingwe le dingwe mo nakong e e tlang tse di amanang le  
Patlisiso ka moo nka kgonang ka teng.  
Ke tla tshegetsa porotokolo/ tsamaiso e e rebotsweng.

.....

Leina la Mmatlisisi

.....

Tshaeno

.....

Lefelo

.....

Letsatsi



# The Computer Room

Desktop Publishing • Web Design • Proof-reading • Editing

Your one stop document handling service

Plot 48, Palmietfontein, Polokwane, 0699  
Postnet Suite 226 • Private Bag X9307 • Polokwane • 0700  
Tel: 076 079 0214 • Fax: 086 216 7380

Date: 18 February 2021

## To Whom it May Concern

I hereby confirm that I have proof-read the document entitled: "Patient Satisfaction Regarding Service Delivery at a Hospital in Botswana" written by Zibo Kitso Khuwa and have suggested a number of changes that the author may or may not accept, at his discretion.

Each of us has our own unique voice as far as both spoken and written language is concerned. In my role as proof-reader, I try not to let my own "written voice" overshadow the voice of the author, while at the same time attempting to ensure a readable document.

Please refer any queries to me.



Andrew Scholtz

### Qualifications:

- MA (Digital Media in Education) – University of Kwazulu-Natal (2006)
- Accreditation of Assessors in Higher Education (Short Course) – Rhodes University (2007)
- Postgraduate Diploma in Dispute Settlement – University of Stellenbosch Business School (2013)
- SLP Family Law (Short Course) – North West University (2013)
- Strengthening Postgraduate Supervision (Short Course) – Rhodes University (2019)
- UCT Copy-editing Online Short Course – University of Cape Town (2020)

Evidence of qualifications are available on request.