FACULTY OF COMMERCE


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DEDICATION

I dedicate this work to my husband Misheck and my lovely daughters Tariro and Tafara.
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I give glory to the almighty God for the gift of life and love. I thank all the lecturers who taught me in this programme. I honestly appreciate their support and cooperation and teachings I received. I would like to express my sincere appreciation to my supervisor Dr Kairiza who tirelessly guided me in conducting and compiling this project. I would also like to thank the programme coordinator Mr P. Munyedza for his assistance. I would like to thank Mr P. Makumbe who helped me solving some problems on statistical tests. His guidance was essential for me to conduct the data analysis. My sincere gratitude also goes to fellow students, my family and all my friends who have always been supportive of this dream, for their unwavering support, words of encouragement and wisdom throughout the duration.

God bless.
ABSTRACT

The purpose of this descriptive research was to assess service quality and customer satisfaction at public health institutions. In this study a sample of 50 out patients were used as subjects using convenient sampling method. Self-administered questionnaires were used as research instruments. Both quantitative and qualitative data was collected for analysis. The quantitative data collected was analysed using SPSS 16.0 and presented using tables and graphs. The information was then interpreted and analysed to figure out its connectivity to the research objectives and questions. Based on the SERVQUAL scores, the findings indicate that there is negative gap of -1.13’ (p<0.05) between patients’ perceptions and expectations, indicating that the service quality does not meet the expectations. The best predictor of overall service quality was the assurance dimension with a mean score rating of 4.54(P<0.05). Only 32% of the participants were satisfied with quality of care indicating that there is room for quality improvement initiatives in all five quality dimensions and 36% would recommend the hospital to their friends and relatives. The study revealed that there was no significant differences in means of scores in relation to patients’ sex, age, occupation and level of education (p>0.05), for all dimensions. The key recommendations were to equip healthcare workers with customer care skills and to conduct regular feedback surveys from patients, and to incorporate the scores as part of performance appraisals.
TABLE OF CONTENTS

Acknowledgement ........................................................................................................ v
Abstract ........................................................................................................................ vi
Table of contents ............................................................................................................ vii
List of tables’ ................................................................................................................... viii
List of figures .................................................................................................................. ix
List of abbreviations...................................................................................................... xi
1 Introduction ................................................................................................................ 1
1.1 Background of the study ......................................................................................... 1
1.2 Statement of the problem ....................................................................................... 3
1.3 Research objectives ............................................................................................... 4
1.4 Research questions ................................................................................................. 4
1.5 Justification of the study ....................................................................................... 5
1.6 Assumptions............................................................................................................ 5
Chapter two- Literature review ................................................................................... 8
2.1 Health services in Zimbabwe ................................................................................ 8
2.3 Theoretical literature ............................................................................................ 10
2.3.1 Service quality .................................................................................................. 10
2.3.2 The Gap Model ................................................................................................. 11
2.3.3 The Donabedian Model .................................................................................... 14
2.3.4 Theoretical framework for measuring satisfaction ........................................... 15
2.4 Empirical Literature .............................................................................................. 17.
2.4.1 Patient satisfaction ................................................................. 16
2.4.2 Factors that influence patient satisfaction ............................. 17
2.5 The link between service quality and patient satisfaction .......... 19
2.6 The SERVQUAL instrument .................................................... 21
2.7 The importance of measuring service quality ......................... 22
2.8 The conceptual framework ..................................................... 23

Chapter three - Methodology ....................................................... 25

3.1 Research design ...................................................................... 25
3.2 Subjects, Population and Sampling ......................................... 25
3.3 Research Instruments ............................................................. 26
3.4 Data collection procedures .................................................... 27
3.5 Pilot test .................................................................................. 28
3.6 Measures ................................................................................. 28
3.6 Data Analysis .......................................................................... 29

Chapter four - Data Presentation, Analysis and Discussion .............. 30

4.1 Descriptive statistics: Demographics ....................................... 30
4.2 Analysis of the SERVQUAL instrument .................................. 31

Chapter five - Summary, Conclusions and Recommendation ............. 52

5.0 Summary ................................................................................. 52
5.2 Conclusions ............................................................................. 53
5.3 Recommendations ..................................................................... 54

References ...................................................................................... 55

Appendix ......................................................................................... 64
LIST OF TABLES

4.1 Patients expectations and perceptions: Tangibility .............................................. 31.
4.2 Patients expectations and perceptions: Reliability ............................................. 33.
4.3 Patients expectations and perceptions: Responsiveness ..................................... 34.
4.4 Patients expectations and perceptions: Assurance ............................................. 36.
4.5 Patients expectations and perceptions: Empathy ............................................. 37.
4.6 The SERVQUAL gap ......................................................................................... 38.
4.7 Paired samples t-test: Total expectations and perceptions ................................. 41.
4.8 Paired samples t-test: Total expectations and perceptions ................................. 41.
4.9 Paired samples t-test: by dimensions .................................................................. 42.
4.10 ANOVA (income level): (within subjects’ contrasts) ......................................... 44.
4.11 ANOVA for SERVQUAL scores by income; (between subjects’ effects) ......... 44.
4.12 ANOVA for SERVQUAL scores by education level ; (within subjects contrasts) ................................................................................................................................. 45.
4.13 ANOVA for SERVQUAL scores by education level (between subjects’ effects) ................................................................................................................................. 45.
4.14 ANOVA for SERVQUAL by occupation; (within subjects’ contrasts) ............. 46.
4.15 ANOVA for SERQVUAL by occupation; (between subjects’ effects) ............. 46.
4.16 ANOVA for SERVQUAL scores by age; (within subjects’ contrasts) ............. 47.
4.17 ANOVA for SERVQUAL scores by age; (between subjects effects) ............. 47.
4.18 ANOVA for SERVQUAL scores by sex; (within subjects contrasts) ............. 48.
4.19 ANOVA for SERVQUAL scores for sex; (between subjects effects) ............. 48.
4.20 Patients willingness to recommend the hospital ............................................. 49.
4.21 Patients overall satisfaction ............................................................................. 50.
4.22 Patients suggestions.
LIST OF FIGURES

2.1 A service quality model ..................................................................................13
2.2 The Gap model of service quality ....................................................................14
2.3 The Andersen Behavioural model ....................................................................16
2.4 The conceptual framework ..............................................................................24
4.1 Q-Q plots for expectation and perceptions variables ......................................40
4.3 Means of expectations and perceptions by dimensions ..................................43
LIST OF ABBREVIATIONS

AIDS- acquired immune-deficiency syndrome

ANOVA-analysis of variance

E-expectations

EU- European union

HIV-human immune-deficiency virus

MDG- millennium development goals

MOHCW- ministry of health and child welfare

OPD -out-patients department

P-perceptions

SERVQUAL- Service quality

SD-standard deviation

TB-tuberculosis

UN-United Nations

UNFPA-United Nation’s Population Fund

UNICEF- United Nations Children’s Fund

WHO- World Health Organisation.
CHAPTER ONE

Introduction

1.0 Introduction

This study made an empirical analysis of factors influencing perception of quality of healthcare services of Zimbabwe Health Institutions. In the study a measure and appraisement model for service quality, which is adaptable to Zimbabwe Health Institutions, was designed by theoretical analysis and on the basis of other academicians’ relative studies. Meanwhile, the author took Bindura Provincial Hospital as an example to obtain data by survey questionnaires, and verify and modify the model using descriptive statistical and ANOVA on SPSS. In the end of the paper the author achieved the conclusion and suggestions in order to contribute to the improvement of Zimbabwe public Health Institutions’ service delivery to enhance customer satisfaction.

This study focused on examining quality of healthcare services as indicated by differences in patients’ expectations and perceptions at a public health institution in Zimbabwe. It also examines the link between patients' perceptions of quality and their overall satisfaction with healthcare services. The chapter will start with a background of the study and a statement of the problem, followed by justification of the study, research questions and the research objectives will be presented.

1.1 Background of the Study

Most people are well informed and eager to take responsibility for their own health. The use of the internet has made the patients more aware of their illnesses and how they should be managed. Therefore most of the consumers of healthcare services have exceptionally higher expectations and demand a high level of accuracy, reliability, responsiveness and empathy. They are becoming more critical of the quality of healthcare services they receive (Lim and Nelson, 2000).
Due to this new paradigm in healthcare services, hospital administrators need to take into consideration patients’ expectations and perceptions and must address the issues of improving the quality of healthcare they provide. Traditionally quality of care has been defined primarily in terms of technical delivery by provider based approach such as appropriateness of diagnosis and treatment given to patients. This is changing as a result of the reforms based on the World Health Organisation (WHO Report, 2000) which recommends the concept of patient oriented services. Upon the adoption of the Patients’ Charter by the Ministry of Health and Child Welfare Zimbabwe in 1996, the concept of patient oriented care was incorporated. In spite of this change, quality assurance system still focuses its attention on the technical aspects rather than aspects of interpersonal quality.

The focus of this study is the perception of quality and patients’ satisfaction with healthcare service delivery at Bindura provincial hospital. The challenge for healthcare providers is to provide patient centred care at all times. Public hospitals are significant component of health systems in many developing countries and also in Zimbabwe. There is however greater awareness now than ten years ago of the need to improve the responsiveness of the Zimbabwe health system (The National Health Strategy 2009-13). The Zimbabwe national health strategy report of 2007 noted the absence of customer focus as a challenge in health service provision.

The effects of HIV/AIDS, malaria and tuberculosis have accelerated the need to improve quality of health care in order to reduce mortality and to attain the Millennium Development Goals (MDGs) 4, 5 and 6. The goals are to reduce child mortality, improve maternal health and combating diseases such as malaria, HIV/AIDS and Tuberculosis by the year 2015.

Misunderstanding needs of patients often lead to underutilisation of existing healthcare facilities and hinders the development of a patient oriented healthcare system. Therefore it is important to consider patients’ opinions’ to assess the quality of care they receive in public health institutions. As the purpose of quality improvement techniques is to increase customer satisfaction and loyalty, it is important to know that this goal is achieved.
Zimbabwe’s health delivery services are decentralized, with health care provided at primary (clinics), secondary (District hospital), tertiary (provincial Hospitals), and quaternary (Central Hospitals) levels. Bindura Hospital is tertiary level hospital which is a referral centre for Mashonaland central province.

Bindura provincial hospital is a Government owned hospital which is located in Bindura urban, 90km from Harare. The hospital has a complement of 120 beds and attends to an average of 90 patients per day including in-patients. The hospital offers outpatient and inpatient medical services, laboratory, pharmacy, rehabilitation, dental, diagnostic imaging, opthalmology and maternity services. The hospital has an establishment of 13 medical doctors, 5 Dentists, 2 Dental Technicians, 2 Dental Therapist, 4 Laboratory scientists, 1 laboratory technician, 170 nurses, 2 Pharmacists, 5 Pharmacy technicians and others to make a total of 846 employees of which 701 are in posts.

The hospital has over the past ten years experienced a serious shortage of doctors and other health professionals due to migration for better income and working conditions (Zimbabwe Health System Assessment, 2010).

1.2 Statement of the problem:
Adequate utilization of health services is an important policy concern in most developing countries including Zimbabwe. It reflects efforts to improve health outcomes and meet international standards and make health services acceptable. Patients’ perception of quality and satisfaction with care are the objectives of care and along with the recovery from illness or amelioration of the presenting problem; they are therefore an outcome of healthcare. Many industries commonly use quality improvement techniques such patient centred care approach to improve service delivery process. Yet there has been scarce application of these proven methods into public health settings and public health sector has not developed a set of shared principles on health care process improvement.

This duty to safeguard population health is best met by combining public health science with techniques of quality improvement one of which is improving patient satisfaction. There is growing evidence that quality improvement techniques can be applied successfully in public health institutions (Thingstad et al., 2009). According to
the Zimbabwe Health Services study (2008) there has been gradual decrease in utilization of public health services. Many patients are seeking health care from private and mission hospitals instead of public health institutions. Consumers often switch to other competitors (Customer Churn) when they cannot be satisfied with the service quality. Measurement of quality and customer satisfaction surveys might be one of the best ways for service providers to retain customers and building customer loyalty. This study may be an effective means of evaluating performance of healthcare delivery at Bindura Hospital as perceived by the patients.

1.3: Research objectives:
The following are the research objectives of the study.

1. To evaluate the quality gap between patients’ expectations and their perceptions for each service quality dimension.
2. To assess the overall level of satisfaction with quality of healthcare provided at Bindura Provincial hospital.
3. To establish the factors that influence patients’ perception of quality of healthcare services provided at Bindura Provincial Hospital.
4. To give recommendations on how to improve the quality of patients’ oriented care in public health institutions.

1.4 Research questions:
The study seeks to answer the following questions:

1. What is the quality gap between patients’ expectations and their perception of quality for each quality dimension?
2. What is the overall level of satisfaction with quality of healthcare provided at Bindura Provincial Hospital?
3. What are the factors which significantly influence the patients’ perceptions of quality of healthcare services at Bindura Hospital?
4. What are the recommendations to improve quality of patient oriented care in public health institutions?
1.5: Justification of the study:
This study may:

1. Help healthcare providers to understand customers’ preferences by measuring service quality through its dimensions.
2. Provide a test tool for hospital management teams to obtain feedback on quality of care they offer their patients for the purpose of quality improvement and strategic decision making.
3. Provide recommendations to policy makers in the Ministry of health and child welfare and other stakeholders on improving quality of the health delivery system.
4. Assist fellow scholars with better understanding of patients’ opinions regarding service quality and to come up with more determinants for quality of healthcare.

1.6 Assumptions:
The underlying assumptions are that:

- The findings of the study can apply to similar health institutions.
- Respondents will be cooperative and truthful.
- The sample will be representative of the population under study.

1.7: Limitations:
Some limitations were found in this study as follows:

- The respondents in this study included limitation 50 patients at the Bindura Provincial Hospital in Bindura. If the subjects were drawn more than 50 respondents from other hospitals in Zimbabwe, the result would be more generalized.
- A convenient sample was used as the basis of this study and therefore the results and conclusions may not be applicable to the general population.
- Some patients refused to participate in this survey. If the respondents were more willing to offer feedback, the results would have been useful for
improving hospital service. However the researcher managed to collect data from 50 patients.

- Availability of resources such as financial and time limited the sample size; however the study may stimulate further research of the same nature.
- The participants were not willing to provide honest responses for fear of victimisation. The researcher however assured them that the information they provide would be confidential.

1.8: Delimitations

- Outcome of treatment was not considered in this study since this would require a longitudinal approach in order to assess whether health status of the patient improved or not.
- The sample was derived from out patients who were treated at medical outpatient department of Bindura hospital from 11 to 17 May 2013.
- The purpose of focussing on Bindura hospital and only to outpatient services was to make the study manageable and focussed. However, this does not suggest that other hospitals and services left out are not important. These delimitations were to ensure generalizability to patients who can make an independent assessment of healthcare quality received.

1.9: Definition of research operational variables:

**Patient satisfaction**- refers to patients’ value judgements and succeeding reactions to stimuli they perceive in the health service environment just before and after the course of their clinical visits.

**Quality of care**- refers to the superiority of care that patients receive from health workers in terms of knowledge, interpersonal skill, skills to diagnose and treat and quality of medical equipment.

**Expectation** – refers to care that the patient hopes to receive. He/she might expect to get treatment as soon as possible without delay. Expectation will be measured in terms of waiting time, quality of care, and accessibility of services.

**Perception**- how the patients relates his/her experience with care provided by medical personnel.
1.10 Summary of the chapter:
The introductory chapter laid down the background of the study as well as justification, research objectives and research questions to be answered. The importance of the chapter is that it draws a roadmap for the research and it defines the course of the entire research project. The next chapter reviews the literature on service quality and customer satisfaction regarding healthcare services in particular. This is followed by a discussion regarding research methodology, an analysis of findings and final conclusions and recommendations.
CHAPTER TWO

Literature Review

2.0: Introduction

Literature on service quality and patient satisfaction with health services was reviewed. It is relevant to refer briefly to the previous studies and research in the related areas of the subject to find out and to fill up the research gaps, if any. A number of books are available on the subject related aspects in the health services environment, but few studies are undertaken on perception of quality and satisfaction with care in public health institutions of Zimbabwe in particular. Literature was searched from journals and relevant books found in the Bindura University of Science Education library, the internet and Government publications.

2.1 Health services in Zimbabwe.

Health service delivery is the most publicly visible building block of any health system. Zimbabwe has a long track record of delivering comprehensive services across the country, dating back to structures and institutions created during the pre-independence and immediate independence era. However, the recent economic challenges have led to a shortage of laboratory equipment, reagents, and personnel to deliver comprehensive services across the country. The Ministry of Health and Child Welfare plays a stewardship role in safeguarding the health of the population of Zimbabwe, as well as in direct provision of health services. In pursuing this mission, the ministry is committed to the following values:

- Comprehensive quality services
- Client and provider satisfaction
- Equity in health status and health care
- Comprehensive quality services
- Transparency and accountability
- Ownership and partnership in health
Monitoring and evaluating the performance of the health services to ensure accountability and adherence to national standards and policies. (The National Health Strategy for Zimbabwe 2009-2013).

At the end of 2009, the Ministry of Health and Child Welfare (MOHCW) began referring to, and was guided by, the provisions of the newly developed National Health Strategy for 2009-2013. Additionally, a Zimbabwe Patients’ Charter was originally developed in 1996 which provides a basic framework for how clients should be treated throughout the health system, and defines the responsibilities of clients as patients within the health system.

The public sector provides 65 percent of health care services in the country (MOHCW, 2005). Health care in Zimbabwe is provided by public facilities, nonprofit groups, church organizations, company-operated clinics (such as those of mining companies), and for-profit clinics. Additionally, a traditional medicine sector is pervasive and provides treatment for a variety of illnesses.

2.2: Financing of health services
Total health expenditures in Zimbabwe in 2009, through October 2009, were US$42.5 million, a significant increase from previous years. However, the budget for health remains well below the Abuja Declaration’s goal of health budgets as 15 percent of a country’s total budget. Per capita health spending has also increased significantly, to US$5.77 in 2009 to US$18 per capita allocated in 2013. However incomplete disbursement of health budget would mean this figure could be lower as noted in the National Child Survival Strategy for Zimbabwe 2010-2015 report. While there has been decline in level of direct funding from the government, the country has continued to receive support from UN Agencies such as the World Health Organisation (WHO), UNICEF, UNFPA, as well as the European Union(EU) and the Global fund for HIV and AIDS, TB and Malaria. The World Health Organization estimates that US$34 per capita is needed to achieve the Millennium Development Goals (MDGs) in Zimbabwe and to provide an essential package of services to all Zimbabweans.
2.3: Theoretical Literature.

2.3.1: Service quality.

There are several definitions that constitute service. Armstrong and Kotler (2003) define service as a performance that one party can offer to another that is essentially intangible and does not result in the ownership of anything. It is also defined as deeds, performances that cannot be physically possessed (Lamb et al., 2004).

Service quality is often conceptualised as the comparison of service expectations with actual performance (Zeithaml and Bitner, 2003). Service quality is defined as “the difference between customer expectations and perceptions of service” or “as the customers’ satisfaction or dissatisfaction formed by their experience of purchase and use of the service” (Gronroos, 1984 and Parasuraman et al., 1988). Evans &Lindsay (1996) define service quality as the total characteristics of service related to its ability to satisfy the needs of customers. According to the above definitions, the service quality seems to be a disconfirmation paradigm.

The outcome of the process may be a negative disconfirmation in which expectations are higher than perception. A positive disconfirmation would mean that perceptions are higher than expectations, or a confirmation in which perception are equal to expectations level (Sasser et al., 1994, Brown et al., 1989, Parasuraman et al., 1994). Perceptions refer to customer’s evaluation of the service provider and expectations are the wants of consumers and their feelings regarding what a service provider should offer (Parasuraman et al., 1985).

In general, quality can be defined through two approaches; conformance to requirements and patients satisfaction. The limitation of conformance approach is that patients do not fully understand the technical issues of health services. On the other hand, the patients’ satisfaction approach defines quality as the extent to which the services meets or exceeds their expectations. The strength of this approach as compared to conformance to standards is that, it captures what is important for the customers rather than established standards.
The weaknesses of this approach are that measuring patients’ expectations is a difficult task and the fact that patients’ short term and long term evaluations may be difficult (Reeves and Bednar, 1994).

Oliver (1993) reported that service quality is a casual antecedent of customer satisfaction, due to the fact that service quality is viewed at transactional level and satisfaction is viewed to be an attitude.

Dabholkar et al., (1996) and Zeithaml et al., (2000) reported that the service quality divisions are related to overall service quality and or customer satisfaction. Fornell et al., (1996) expressed that satisfaction is a consequence of service quality.

Hurley and Estelami (1998) argued that there is causal relationship between service quality and satisfaction, and that the perceptions of service quality affect the feelings of satisfaction. This study may establish if perceptions influence patient satisfaction with care.

McDougall and Levesque (2000) in their direct approach investigation on four service firms (dentist clinic, automobile shop, restaurant, and haircut salon) demonstrated that both core and relational service quality classes have significant impact on customer satisfaction. Zineldin (2006) advocates that quality healthcare should be regarded as the right of all patients and should be the responsibility of the staff and healthcare organizations.

2.3.2. The gap model.

Parasuraman et al., (1988) identified five dimensions of service quality (SERVQUAL) that must be present in any service delivery. SERVQUAL helps to identify clearly the impact of quality dimensions on the development of customer perceptions and the resulting customer satisfaction. SERVQUAL include:

- Reliability - the ability to perform the promised services dependably and accurately.
- Responsiveness - the willingness to help customers and provide prompt service.
- Assurance - the knowledge and courtesy of employees as well as their ability to convey trust and confidence.
- Empathy - the provision of caring, individualized attention to customers, and
- Tangibles - the appearance of physical facilities, equipment, personnel and communication materials.

A study by Karassavidou et al., (2009) revealed the human aspect, physical environment and access as the determinants of quality of health care. The human aspect gap was found to be the most important area for improvement and the predictor of the overall service evaluation.

The model conceptualizes service quality as a gap between customer's expectations (E) and the perception of the service providers' performance (P).

According to Parasuraman et al., (1985), “service quality should be measured by subtracting customer's perception scores from customer expectation scores (Q = P - E)”’. The greater the positive score mark means the greater the positive amount of service quality or the greater the negative score mark, the greater the negative amount of the service quality. The scoring is done by a five or seven Likert scale.

Nyeck et al., (2002) stated the SERVQUAL measuring tool “remains the most complete attempt to conceptualize and measure service quality” (p. 101). The main benefit to the SERVQUAL measuring tool is the ability of researchers to examine numerous service industries such as healthcare, banking, financial services, and education. The fact that SERVQUAL has critics does not render the measuring tool unreliable. Rather, the criticism received concerning SERVQUAL measuring tool may have more to do with how researchers use the tool. Nyeck et al., (2002) reviewed 40 articles that made use of the SERVQUAL measuring tool and discovered “that few researchers concern themselves with the validation of the measuring tool” (p. 106).

Pizam and Ellis (1999) stated that the gap that may exist between the customers’ expected and perceived service quality is a vital determinant of customer satisfaction or dissatisfaction, and not just only a measure of the quality of the service.

To provide standardized measures for several major factors affecting the behaviour of health services users this research partially adapts the “GAP” model of service quality in figure 2.2. It is believed that the use of the GAP model may yield an accurate depiction of the perception and behaviour of health services users, provide recommendations for practitioners, and offer valuable insights for future research.
Customers judge service quality relative to what they want. They view a company's service quality by comparing their perceptions of service experiences with their expectations of what the service performance should be. A service quality gap results when service perceptions fall short of expectations. According to Brown and Bond (1995) “the gap model is one of best received and most heuristically valuable contribution to the service literature.

Delving and Dong, (1994) have developed what is called “A Service Quality Model" which is similar to the Gap Model by Parasuraman et al., (1985): shown below in Figure 2.1. This model also measures the difference between patient perceptions and expectations regarding the service received.

![A Service Quality Model](https://via.placeholder.com/150)

Figure 2.1: A Service Quality Model (Delving and Dong, 1994).

However, the gap between expected and perceived service is just one potential gap. Based on finding from their exploratory research, Parasuraman et al., (1996) have developed a conceptual model linking customer perceived quality deficiencies to intra-company deficiencies or gaps. In this conceptual model, they have identified five potential gaps. Besides the gap presented in Figure 2.2 there exist potential gaps between service delivery and external communications to consumers.
The various potential gaps are illustrated in Figure 2.2

2.3.3 The Donabedian model.

Donabedian (1988, 2005) came up with a considerable number of theoretical contributions that define the quality of healthcare services. He suggested that the patient satisfaction is a key care outcome measure. According to Donabedian (2005), the measurement of effective medical service system is described in terms of “structure, process and outcome”. Structure denotes the attributes of the setting in which care occurs. This includes the attributes of material resources, human resources and organizational structure. This approach is concerned with such things as adequacy of facility, equipment, administrative structure, operation of programs and quality of staff.
Process denotes what is done in giving and receiving care rather than outcome of care. This approach includes the assessment of the technical competence in the performance of diagnostic and therapeutic procedures. The limitation of this approach is that patients lack knowledge in assessing technical aspects of medicine (Rao et al., 2006).

Outcome denotes the effects of care on the health status of patients and population. This approach concerns recovery, restoration of function and survival. The examples are studies of prenatal and surgical medical fatality rates. This approach has limitations in that many factors other than the medical care may influence the outcome. Donabedian (2005) further cited two classical studies that set the groundwork for research using these approaches. The first study evaluated structural characteristic (Goldmann and Graham, 1954) and the other evaluated the characteristics of physicians (Petersan, 1956). Since then, researchers have followed Donabedian theory in determining healthcare quality. This study will also partially adopt the structure approach because of the advantage of being able to obtain assessments from patients that can be used to improve the quality of healthcare at organizational level.

2.3.4: Theoretical frameworks for measuring patient satisfaction.

Literature has revealed that there seems to be no reliable model specifically addressing patient satisfaction because of its subjectivity and the fact that satisfaction is multidimensional even for individuals (Avis et al., 1995:317). The multidimensional patient expectations make it complex to focus on one theory. This is also supported by Nash et al (1994). Schneider and Bowen (1995) identified an array of quality dimensions which are:

- Timeliness
- Convenience
- Personal attention
- Reliability
- Dependability
- Staff competency
- Availability
- Tangibles such as physical facilities, equipment and appearance of personnel.
Some of these dimensions will be adopted for measurement of satisfaction in this study.

The closest theories that were utilised to explain patient satisfaction are the Gap Theory, Donabedian Model and the Andersen Behavioural Model (1995). Thus these three models were partially adopted for construction of the conceptual framework for this research.

Below is an illustration of the Andersen Behavioural Model.

Figure 2.3: The Andersen Behavioural Model (1995)

The **predisposing variables**- include those variables that describe the propensity of family members to make use of health services. These include also family composition such as age, marital status and gender.

The **social structure**- describes level of education, social class, employment status and race.
Health beliefs- are attitudes, values and knowledge that people have about health and health services that might influence their perceptions of needs and use of health services. People who believe strongly in the value of health care or doctors might be more likely to seek care than those who do not have these beliefs.

Enabling factors-describe the means individuals have available to them for use of services. These are income, health service providers and community attitude towards medical care.

Need factors-these include health status and illness which causes the use of health services (Andersen 1995).

2.4: Empirical Literature.

2.4.1: Patient satisfaction.
Customer satisfaction represents a profitable competitive strategy because the public is likely to pay more to quality institutions who are willing to satisfy customers’ needs in a better way (Ziethaml et al., 1990). It is an established fact that satisfaction influences whether a person seeks medical advice, complies with treatment and maintains a continuing relationship with practitioners (Margaret et al., 2003). Moreover addressing service aspects of health care that customers most readily appreciate, such as access, provider relationship, availability of information and opportunity for participation can influence health care quality outcomes.

Consumer satisfaction is playing an increasingly important role in quality of care reforms and health-care delivery more generally. However, consumer satisfaction studies are challenged by the lack of a universally accepted definition or measure and by a dual focus: while some researchers focus on patient satisfaction with the quality and type of health-care services received, others focus on people’s satisfaction with the health system more generally (WHO Report, 2000).

The importance of both perspectives has been demonstrated in the literature. For example, satisfied patients are more likely to complete treatment regiments and to be compliant and cooperative (WHO Report, 2003).
Research on health system satisfaction, which is largely comparative, has identified ways to improve health, reduce costs and implement reform. A study by Batchelor et al., (1994) in Tanzania in 1994 resulted in strengthening of management systems, clinical skill training, and orientation of staff to service quality and community involvement in monitoring health service delivery.

One of the main concerns of any health care units is to achieve a high level of patient satisfaction by providing a better quality service (Torres and Guo, 2004). Service quality is considered as a major determinant in customer retention and building value relationship (Venetis and Ghauri, 2004). Rational consumers will go to the service provider that they perceive to provide good quality service with the best value (Youssef et al., 1996). The reasons why private hospitals are able to provide quality service in order to satisfy their patient included limited or no patient waiting for service delivery and good standard of care and comfortable provisions when admission is warranted.

Thus it is expected that satisfied patients will continue to utilise the same service provider. Tom (2005) argued that satisfaction arises from a process of comparing perceptions of service with expectations. Zineldin (2006) that patient satisfaction was an important health outcome and quality measure. Literature reviewed by Attree (2001:457) revealed that though measuring patient satisfaction still remains the most popular method of finding out how patients view the care giver, however patients’ perceptions of quality of care does not automatically equate to patient satisfaction. However, summary of findings of Attree (2001:464) study indicate that identification of client perception of quality of care helps care givers to improve methods of measuring patient satisfaction. Review of the above literature has therefore shown that patient satisfaction is an outcome standard linked to quality of care.

2.4. 2: Factors that influence patient satisfaction.

Literature has cited several factors that influence patient satisfaction. Demographic factors such as sex, age, level of education and social class have been cited in literature as having influence on patient satisfaction (Lumby and England 2000:140). Patients have different experiences with the same care giver and their perception of quality is a complex phenomenon because of its subjectivity.
2.4.2.1: Socio-demographic factors:

Age – the most consistent findings have been related to age. In general older patients tend to report greater satisfaction and sicker patients tended to be less satisfied (Young et al., 2000). Thomas et al., (1996:27) developed an open ended qualitative research tool on patient satisfaction. Review of literature during their study also showed that older patients tended to express greater satisfaction. Younger patients on the other hand were found to be quite open about their perception of care. Larsson (1999:693) in studying the effects of age on views of quality of care supported Thomas et al., (1996) that more positive evaluation of care is given with increased age. Contrary to this, Stutts (2001:294) concluded that there seems to be no link between the level of satisfaction and age of patient.

Sex – literature reviewed indicated that men were more satisfied than women (Setter et al., 1997. However in many other studies women were more satisfied than man (Booyens and Roos, 1994:20). This shows that studies on effect of gender are contradictory. A study by Thomas et al., (1996:27) points out the insignificant differences, but however indicates that female patients as making at least one comment on care given. A study by Thomas et al., (1996:27) revealed insignificant differences, but however indicated female patients as making at least one comment on care given.

Social class and level of education- Avis et al., (1995: 319) pointed out that socioeconomic class and patient satisfaction are related. Better educated patients may participate in diagnosis and treatment decisions more than less educated patients but may remain less satisfied with their degree of participation because doctors are meeting their high expectations. Lower income patients reported higher level of satisfaction according to a study by Rogut et al., (1996). Similarly less educated and lower income patients are more satisfied as compared to their counterparts (Hargraves et al., 2001).

Educational attainment has been identified as having a significant bearing on patient satisfaction, the trend being that greater satisfaction is associated with low level of education (Hargraves et al., 2001).
In a study of parents with hospitalised neo
genates, it was found that there was no clear
association between satisfaction level and patients’ social class, race and education
level, though lower level income clients seem to have lower satisfaction level
(Thomas et al., 1996).

**Marital status**- Tran Thi Nga(2002) concluded that there was no association between
marital status and level of satisfaction. This was also supported by Al Sharif (2008).
Some literature has documented the role of a variety of different demographic
characteristics in determining client satisfaction with health care service (Wright,
1985).

**2.4.2:2 Patient and health professional relationship.**
There is consistent evidence that the most important health service factor affecting
satisfaction is the practitioner/patient relationship including empathy, information
dissemination, communication, courtesy and respect (Mckinely et al., 2002). The
importance of empathy and reassurance in patients with cancer is well recognised.

This evidence seems to suggest that the health professional is perceived as
communicating well when the patient feels that she/he shows individualized interest,
understanding and reassurance. Another study in Bangladesh reported that the most
powerful predictor of client satisfaction with health services was provider behaviour
especially respect and politeness (Jorge et al., 2001).

**2.5: The link between service quality and patient satisfaction.**
Patient satisfaction is a person’s feeling of pleasure or disappointment resulting from
a service’s perceived performance or outcome in relation to his or her expectations.
Researchers such as Tam and Wong (2001) and Zineldin, (2006) have viewed
satisfaction as the degree of discrepancy between expectation and experience.
Satisfaction has been proposed to occur when experiences are equal or better than
expectations (Pelz 1982). Patient satisfaction has remained the most important focus
point for all health service providers.
Measuring patient satisfaction depends on using the accurate measures because it
comprises standards that incorporate dimensions of technical, interpersonal, social
and moral aspect of care (Kane et al., 1997).
According to Fornel et al., (1994), service quality is one of the antecedents in patient satisfaction. The other two identified antecedents were expectations and perceived value. Tom (2005) argued that satisfaction arises from a process of comparing perceptions of service with expectations.

Zineldin (2006) discovered that patient satisfaction was an important health outcome and quality measure. Literature reviewed by Attree (2001:457) revealed that though measuring patient satisfaction still remains the most popular method of finding out how patients view the care giver, patients’ perceptions of quality of care does not automatically equate to patient satisfaction. However, summary of findings of Attree (2001:464) study indicate that identification of client perception of quality of care helps care givers to improve methods of measuring patient satisfaction. Review of the above literature has therefore shown that patient satisfaction is an outcome standard linked to quality of care.

2.6: The SERVQUAL instrument.
SERVQUAL is widely used by academics and practitioners to measure service quality, including numerous studies of service quality in healthcare (Sohail 2003, Zineldin 2006, Atler et al., 2008 and De Jager et al., 2010), universities (Galloway, 1998), police services (Donnelly et al., 2006) banks (Kangis and Passa, 1997) and travel agencies (Luk, 1997). This instrument is used for assessing customer perceptions and expectations of service quality in service organizations. The instrument consists of 22 pairs of statements that measure consumer’s expectations and perceptions of service performance and these statements are loaded into five dimensions of service quality as described in section 2.3.2.

The five point Likert scale is used to score customer expectations and perception of service quality (Gabbie and O’neill, 1996; Shahin 2005). In this model, the quality is equal perception score minus expectation scores.

It is based on the gap measures of expectations and perception of patients regarding the quality of healthcare received (Parasuraman 1988). Taylor and Cronin (1994) and Babakus and Mangold (1992) tested this instrument in healthcare services and concluded that the dimensions where appropriate and transferable to hospital services.
Another study by (Zarei et al., 2012) also proved the SERVQUAL as valid, reliable and flexible instrument to monitor and measure the quality of in private hospitals in Iran. The results of their study showed that the highest expectation and perception related to tangibles and the lowest scores related to empathy dimension. Similar results have been reported by several researchers (Taner et al., 2006; Lin et al, 2009 and Butt et al., 2010). De Jager et al., (2010) used an adapted version of SERVQUAL at a South African public hospital and discovered that patients demand responsiveness and lack of which resulted with dissatisfaction with quality of care. A similar study carried out in Nigeria by Ofili and Ofvwe (2005) found waiting time and unavailability of certain drugs as the reasons for dissatisfaction with quality of care. Zineldin (2006) explained how patients in Jordan and Egypt evaluate the quality of healthcare and concluded that health quality models in the west are not necessarily applicable in developed countries. This study identified health attributes that are appropriate for the hospitals in developing countries that can also apply to Zimbabwe public health institutions.

The wide array of application of an instrument such as SERVQUAL spells confidence in its utilisation as a technique for measuring service quality in various business sectors and service industry.

2.7 The importance of measuring service quality and patient satisfaction.

Patient satisfaction is as important as other health services measures and is a primary means of measuring the effectiveness of health care delivery. This is supported by Zineldin (2006) who stated that patient satisfaction was an important health outcome and quality measure. Patient satisfaction has been increasingly used as one indicator of quality of health care (Baker 1991). Measures of patient satisfaction are used to compare health care programs, to evaluate quality of care and to identify which aspects of service need improvement.

Patients’ evaluation can help medical practitioners to identify their achievements as well as their failures, and assisting them to be more responsive to patient’s needs (Al Elsa et al 2005). The WHO conference on support of health for all by the year 2000, held in 1990, defined future development in health to be human centred. WHO refers responsiveness of health system as the manner and environment in which people are treated when they seek health services.
It is important for the public hospitals as well as for private hospitals to provide better quality service to their customers in line with their expectations and experience (Eiriz and Figueiredo, 2005).

Fitzpatrick (1991) identified three reasons why health professionals should take patient satisfaction seriously as a quality measurement:

- There is convincing evidence that satisfaction is an important outcome measure. It may be a predictor of whether patients follow their recommended treatment, and is related to whether patients revisit for treatment and change their provider of health care. There is also evidence that satisfaction is related to improvement of health status.
- Patient satisfaction is an increasingly useful measure in assessing consultations and patterns of communication.
- Patient feedback can be used systematically to choose between alternative methods of care.

Due to increasing cost of health services and the need for better use of available resources, there is need to measure the efficiency of healthcare to determine if available resources are being properly used. By measuring service quality the researcher seeks to find the research gap regarding factors that influence the patients’ expectations and perceptions of health care delivery in public health institutions of Zimbabwe. Such a study has never been done at Bindura hospital.
2.8: The conceptual framework.
From the literature reviewed the researcher proposes the following conceptual model for the current study. The figure 2.4 below shows the proposed conceptual model developed by the researcher.

Figure 2.4: Proposed conceptual framework to summarise the research (Author)

2.9: Summary of the chapter.
This chapter briefed on previous studies and research in the related areas of the subject to find out and to fill up the research gaps. This helped the researcher to come up with research constructs as well as to propose a research model or framework basing on previous researches and proven models.
CHAPTER THREE

METHODOLOGY

3.0 Introduction:
This chapter aims to provide insight into the practical methods employed in gathering information for the empirical section of this research. The chapter begins with an explanation and justification of the chosen method for this research, followed by sampling procedures, questionnaire design and data collection; finally statistical analysis tool will be explained.

3.1 Research Design
Zikmund (2003) classifies business research into exploratory, descriptive and causal. Descriptive research is undertaken to describe characteristics of a population or phenomenon. Descriptive research is distinguished from exploratory research in that descriptive studies are based from previous understanding of the nature of the research problem. This study explores the expectations and perceptions regarding the quality of healthcare services and satisfaction with care received. In additional, this research will identify the factors that lead to why patients are satisfied or dissatisfied with quality of health services. In order to investigate the objectives of this study and answer the research questions, the descriptive research method was employed. When a research is like a ‘snapshot’, taken at a particular time it is cross-sectional. Most research projects undertaken for academic courses are time constrained, so the cross-sectional strategy was used. In this study, a survey was employed due short time that was available to the researcher. Survey is a popular method and common strategy in business research Zikmund (2003).

3.2: Subjects, Population and Sampling.
According to Zikmund (2003) it is important to carefully define the target population so that the proper source from which the data was collected can be identified.

The study population consisted of patients who received healthcare services from the general Out Patients’ department during the period of 11 to 17 May 2013.
The Bindura hospital Out Patients department attends to an average of 90 patients per day (Annual Reports 2007-2012). The respondents who have made at least one visit and able to answer the questionnaire independently were chosen. The mentally ill and those in very serious condition were excluded as they could not answer questions independently.

There are several alternative ways of taking a sample. The two main methods are probability and non-probability techniques. In probability sampling, every element in the population has a known non-zero chance of selection where as in non-probability sampling, the probability of any particular member of the population being chosen is unknown (Wegner 2003). The ideal would be to obtain a probability sample, thus ensuring that the projections of the data beyond the sample would be statistically appropriate. In order to obtain a probability sample for this research a full list of all the patients attending the Out Patients department would be required. However this was not possible to obtain it during the day as this can only be obtained at the end of the day. A non-probability and in particular a convenience sample of 50 patients from Bindura Provincial Hospital was chosen for the purpose this research.

According to Hair et al., (2007) a convenience sample is used because it enables the researcher to complete a large number of interviews quickly and cost effectively. According to Zikmund (2003) the disadvantage of using a non-probability sample is that variability and bias of estimates cannot be measured or controlled and projecting data beyond the sample is inappropriate. However, the advantage of convenient sampling method is that there is no need for a list of population since it is difficult to obtain it for the current study. A convenience sampling targeted a particular group of people, consisting of patients with wide ranging demographic characteristics.

3.3: Research Instruments.

A questionnaire was employed in this study and is presented in Appendix 1. The questionnaire is a popular method of data collection in structured direct survey, with most questions being fixed response alternative questions that require the respondent to select from predetermined set of responses (Fink 1995C). In a survey, the questionnaire is relatively simple to administer and the data is obtained is seen as reliable and valid because responses are limited to the alternatives stated (Page and Meyer 2003).
Spagna (1984) identified a number of strengths and weaknesses of questionnaires. However the strengths outweigh the weaknesses. It is against this background that the researcher opted for the questionnaire. The questions were in simple English and could be easily understood by the respondents.

The questionnaire survey technique was used to collect data and the questions were adopted from the modified SERVQUAL instrument (Parasuraman et al., 1985) and some of the questions were self-constructed after extensive literature review. The researcher adopted questions in order to replicate or compare findings with other similar studies conducted by other researchers. Overall, it was believed that the use of this research instrument facilitates the collection of reliable and valid data that may help answer the proposed research questions.

The questionnaire consists of four sections, each of which contains questions pertaining different parts of the study. The questionnaire consists of four sections with a total of 58 questions. In the First section, Demographic Characteristic of the patients were asked, this include question related to gender, age, and monthly income etc. Section B and C asked patients’ expectations and their experiences with process of care and it is a modified SERVQUAL instrument with 24 statement in each section respectively. These sections of the questionnaire consist of Likert Scales with rating of 1 to 5. The respondents were requested to indicate the extent to which they agree or disagree to the questionnaire survey using the five point Likert Scales anchored by 1; strongly disagree, 2; disagree, 3; uncertain, 4; agree and 5= strongly agree.

As the purpose of this research is to rate service quality, a quantitative data was obtained although a few qualitative open ended questions were included to support the findings.

3.4: Data collection procedures.

The chosen method of administering the survey was a self-administered questionnaire personally handed to patients in the consulting rooms and the completed questionnaires being collected on exit after collecting drugs from the hospital pharmacy.
3.5: Pilot Test

A total of 10 respondents were chosen for the pilot test randomly from patients who had been referred from OPD for x-ray examinations in the radiology department in order to determine the reliability to measure the variables for this research before performing data collection in order to achieve the objectives. The questionnaire was evaluated at this stage for evidence of ambiguous questions, potential misunderstanding and evidence of that the questions meant the same thing to all respondents. Some of the statements in the SERVQUAL instrument were confusing and some adjustments were made. These 10 pre-test subjects were removed from the final sampling frame as they had already discharged by the time I carried out the final survey. Peat et al., (2002) argued that the inclusion of pilot study data in the main research which is quantitative may contaminate the results. The questionnaire took an average of 12 minutes to complete.

3.6: Measures

According to Drain (2001), the multiple response scale permits greater variability in patients’ responses and also allows for the prioritising of the quality improvement efforts. The Likert scale was used for rating quality of healthcare. The Likert scales for measuring all constructs were adapted from Fornell. (1996). In measures of customer perceptions and expectations, however the skewness of the frequency distributions is a serious threat to internal validity (Anderson and Fornell 2000). In order to avoid that problem, a five-point Likert-type scale instead of the seven scales was used because it enables respondents to make better discriminations (Fornell (1996)).

Malhotra (2004) identified advantages of using the Likert scale in that it is reasonably easy to construct and administer and respondents readily understand how to use the scale. The main disadvantage however, is that it takes long to complete than other rating scales. The Likert scale also lends itself to potential sources of error (Churchill 1996). It is important to stress that no measures are perfect; however measurement error in research is a critical issue and is a weakness that needs to be recognised and reduced as far as possible (Page and Meyer 2003).

Ordinal scales were used for random variables such as age, gender, income level.
3.7: Data Analysis.

The Statistical Package for Social Sciences (SPSS) 16.0 was used to analyse the data collected. The descriptive statistics (frequencies statistics), paired samples t-test and repeated measures ANOVA were applied to assess service quality. Qualitative data was analysed by content analysis.

3.8: Summary of the Chapter

This chapter highlighted how the research was conducted. It also pictured on the research complexities, citing measures by the researcher to ensure that objective is gathered and minimized the degree of errors thus making sure that the research can be used to make constructive decisions. The next chapter will discuss data presentation, analysis and interpretation.
CHAPTER 4

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.0 Introduction.

This chapter presents the results of this study consisting of the personal data of the respondents, level of patients’ expectation and perception, and their suggestions concerning the service quality of Bindura Provincial Hospital.

4.1: Descriptive statistics: Demographics.

A total of 65 questionnaires were administered and 50 were collected at Bindura Provincial Hospital. The response rate was 77%. The response is considered adequate for data analysis (Babbie 2009). The data collected was analyzed with the Statistical Package for Social Science (SPSS 16.0). This section presents the personal data of 50 patients who visited the hospital for at least 1 to 6 times in a period of six months. The findings showed that there were more male patients (60%) than female (40%). The largest age group was 16-32 years (48%) followed by 33-49 years of age (38%) and 14% for the 50-65 years age group. It is assumed that the 16-32 age group is open with their evaluation and perception of quality of care and they also tend to be more critical (Zapka et al., 1995, Walsh and Walsh 1999:30). The majority (52%) of the respondents were married, 32% single, 12% divorced/separated and 4% were widowed. Those employed by Public Service were 34%, 26% self-employed, 12% students, 8% unemployed and 4% were pensioners. The main mode of payment was cash (54%), Medical Aid (22%), Free (16%), and Social welfare (8%). 58% of the respondents had visited the hospital on at least two occasions within six months, 22% at least 4 times while only 20% had visited the hospital 6 times within the period. The majority of the respondents 42% earned less than $200 monthly, (30%) $201-$400, (22%) $401-600 and 6% earned more than $600 monthly.

Demographic information did not show any significant differences in their perception of quality of care. The findings were supported by similar studies by (Habbal, 2005; Tarantino, 2004 and Tam, 2004). However a study by Rogut et al (1996) indicated significant differences in perception of care by level of income.
They concluded that those who earned less were more satisfied with quality of care than those with high income.

**4.2: Analysis of the SERVQUAL instrument.**

This section presents the Patients expectations and perceptions towards service quality of Bindura Provincial Hospital in Bindura. Service quality is composed of tangibility, reliability, responsiveness, assurance, and empathy dimensions. The respondents were asked to rate each statement concerning their expectation and perception of service quality of the hospital (see Appendix A for the questionnaire) at Bindura Provincial Hospital in Bindura.

The perceived service quality was measured by the following equation:

\[ Q = P_x - E_x \]

Where \( Q \) is the Perceived quality of service, \( P_x \) and \( E_x \) are ratings corresponding to perceptions and expectations of \( x \) statements.

The findings of the service quality of each dimension were as follows:

**4.2.1 Tangibility**

The tangibility dimension includes physical aspects such as the physical appearance of the hospital services including the neatness of staff and professionalism of employees (Dabholkar et al., 1996).

**Table 4.1 Patients expectations and perceptions concerning tangibility**

<table>
<thead>
<tr>
<th>Tangibility Dimension</th>
<th>Expectation</th>
<th>Perception</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mean</td>
<td>S.D</td>
</tr>
<tr>
<td>1. The hospital should have Up-to-date and well maintained equipment</td>
<td>4.8</td>
<td>.404</td>
</tr>
<tr>
<td>2. Cleanliness and hygiene should be excellent.</td>
<td>4.72</td>
<td>.497</td>
</tr>
<tr>
<td>3. The staff should be clean and well</td>
<td>4.6</td>
<td>.606</td>
</tr>
</tbody>
</table>
Table 4.1 shows that expectation towards tangibility has mean score of (4.61). Up-to-date and well maintained equipment received high ranking at 4.8.

When front office staff is well dressed and wear smart uniforms, their appearance as well as that of the surroundings impresses patients who feel more confident with hospital services. The lowest gap was on statement 3 (staff should be clean and well groomed) with a gap of -0.96. This shows that smartness of staff was close to meeting patient expectations. The largest quality gap of -2.14 was on quality of hospital equipment. The overall customer perception of tangibility dimension was also ranked at (3.16). The results show that patients’ expectations were higher than the perception. This indicates there is room for quality improvement in the tangibility dimension which has a negative quality gap of -1.45. The findings are similar to study by Zarei et al., (2012), who studied SERVQUAL dimensions at a public hospital in South Africa. They found that service quality was related to the tangibles cleanliness and hygiene as well as appearance of employees.

### 4.2.2 Reliability

The reliability dimension refers to the ability of staff to provide services dependably and accurately (Dabholkar et al., 1996). Reliable service performance has to meet Patients’ expectation. Service must be accomplished on time, every time, in the same manner and without errors.
Table 4.2 Patients expectations and perceptions concerning reliability

<table>
<thead>
<tr>
<th>Reliability dimension</th>
<th>Expectation</th>
<th>Perception</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mean</td>
<td>S.D</td>
</tr>
<tr>
<td>6. The hospital should provide treatment, diagnostic and other services promptly.</td>
<td>4.62</td>
<td>.490</td>
</tr>
<tr>
<td>7. When a patient has a problem, the staff should show sincere interest to solve it.</td>
<td>4.50</td>
<td>.544</td>
</tr>
<tr>
<td>8. The doctors explain to patients about their health conditions, diagnosis and treatment in an understandable way.</td>
<td>4.52</td>
<td>.735</td>
</tr>
<tr>
<td>9. Nurse/doctors should explain to patients exactly when and what they are going to do regarding treatment.</td>
<td>4.60</td>
<td>.639</td>
</tr>
<tr>
<td>10. Doctors should examine patients carefully.</td>
<td>4.52</td>
<td>.646</td>
</tr>
<tr>
<td><strong>Overall Mean Score</strong></td>
<td>4.55</td>
<td>3.34</td>
</tr>
</tbody>
</table>

Source: Research data.

Table 4.2 shows that the overall expectations concerning reliability dimension has a mean score of 4.55.

Overall perception towards reliability dimension is 3.34; the statement {the hospital should provide should treatment promptly} had the highest expectation and a highest quality gap of -1.74. with the doctor explained about patient’s health condition, diagnosis and treatment in an understandable way receiving the highest perception score of 3.60 as well as the lowest quality gap of -1.0. This may be because the doctors and nurses took time to explain to patients about the tests to be done. However, patients feel less satisfied with the reliability of service as their expectations are higher than perceptions with an overall negative quality gap of -1.21.
Similarly a study by Wisniewski (2001) revealed a negative gap of -0.8 on reliability for the statement (1. The hospital should provide treatment, diagnostic and other services promptly). The results show that patients want to receive treatment promptly.

4.2.3: Responsiveness

The responsiveness dimension involves willingness to help Patients and provide prompt services (Zeithaml et al., 2000). It is essential that front office hospital staff is willing and able to help patients provide prompt service and meet patients’ expectations.

Table 4.3 Patient perception and expectation concerning responsiveness

<table>
<thead>
<tr>
<th>Responsiveness dimension</th>
<th>Expectation</th>
<th>Perception</th>
<th>SERVQUAL score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mean</td>
<td>S.D</td>
<td>mean</td>
</tr>
<tr>
<td>11. Doctors should be available all the time</td>
<td>4.60</td>
<td>.535</td>
<td>2.36</td>
</tr>
<tr>
<td>12. Doctors/nurses should be willing to help patients</td>
<td>4.62</td>
<td>.567</td>
<td>3.40</td>
</tr>
<tr>
<td>13. Patient registration should be simple and trouble-free documentation</td>
<td>4.38</td>
<td>.805</td>
<td>3.08</td>
</tr>
<tr>
<td>14. Waiting time for services was acceptable.</td>
<td>4.28</td>
<td>.834</td>
<td>2.64</td>
</tr>
<tr>
<td>15. Prescribed drugs were available at hospital</td>
<td>4.48</td>
<td>.735</td>
<td>2.42</td>
</tr>
<tr>
<td><strong>Overall Mean Score</strong></td>
<td><strong>4.47</strong></td>
<td><strong>2.78</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: research data.

Table 4.3 shows that overall expectation towards responsiveness dimension has a mean score of 4.47. The overall perception has a mean score of 2.78 and the quality gap is negative (-1.69). The results show that patients’ expectations were higher than the perceptions.
The willingness of staff to help patients has a highest expectation of 4.62 as well as the highest perception of 3.40, mean. Availability of drugs had a quality gap of -2.06. The highest quality gap of -2.24 was related to “doctors not being available on time”. It is highly possible that patients are not satisfied when doctors are not available on time and when the hospital pharmacy does not have prescribed drugs. This is supported by a first time patient at the hospital who commented that, “I had to purchase most of the prescribed drugs from private pharmacies at a highest price because there wasn’t any at the hospital pharmacy” and the other one who had visited the hospital for at least three times in six months responded that “drugs must be readily available”. This shows that these patients did not receive good help when needed. The inability to respond to patients requests reflected to patient dissatisfaction. These findings are consistent with Parasuraman et al., (1998) and de Jager et al., (2010), who measured consumer perceptions of service quality. They found that responsiveness was the most important factor in determining patient satisfaction with service.

4.2.4 Assurance

The assurance dimension refers to the knowledge and courtesy of employees and their ability to inspire trust and confidence including competence, courtesy, credibility and security (Parasuraman et al., 1991).
Table 4.4 Patient perception and expectation concerning assurance

<table>
<thead>
<tr>
<th>Assurance dimension</th>
<th>Expectation</th>
<th>Perception</th>
</tr>
</thead>
<tbody>
<tr>
<td>16. Doctors should be competent to treat patients</td>
<td>4.54</td>
<td>3.26</td>
</tr>
<tr>
<td>17. Patients should feel confident when receiving treatment</td>
<td>4.58</td>
<td>3.44</td>
</tr>
<tr>
<td>18. Patients should be provided privacy during consultation and treatment.</td>
<td>4.56</td>
<td>3.64</td>
</tr>
<tr>
<td>19. Patients are being treated with respect</td>
<td>4.58</td>
<td>3.50</td>
</tr>
<tr>
<td>20. Staff should be willing to answer patients questions satisfactorily</td>
<td>4.46</td>
<td>3.40</td>
</tr>
<tr>
<td><strong>Overall Mean Score</strong></td>
<td>4.54</td>
<td>3.45</td>
</tr>
</tbody>
</table>

SERVQUAL score

<table>
<thead>
<tr>
<th>Assurance dimension</th>
<th>Expectation</th>
<th>Perception</th>
</tr>
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<tbody>
<tr>
<td>16. Doctors should be competent to treat patients</td>
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</tr>
<tr>
<td>20. Staff should be willing to answer patients questions satisfactorily</td>
<td>4.46</td>
<td>3.40</td>
</tr>
<tr>
<td><strong>Overall Mean Score</strong></td>
<td>4.54</td>
<td>3.45</td>
</tr>
</tbody>
</table>

Source: Research data.

Table 4.4 shows that overall expectations towards assurance dimension had a mean score of 4.54, with confidence during treatment ranking most important 4.58 as well as being treated with respect having the same score.

Perception of assurance dimension ranked at (3.45), with competence of doctors concerns being the most important factor with a highest quality gap (-2.28). This is contrary to findings by Taner et al., (2006) and Zarei et al., (2012). The quality gap for this dimension was -1.09 which was the lowest compared to all the quality dimensions. The results show that patients’ expectations were overall closely met by the assurance dimension.
4.2.5 Empathy

The empathy dimension represents the provision of caring and individualized attention to customers including access or approachability and ease of contact, effective communication, and understanding the Patients (Parasuraman et al., 1991).

Table 4.5 Patients’ expectations and perceptions concerning empathy

<table>
<thead>
<tr>
<th>Empathy dimension</th>
<th>Expectation</th>
<th>Perception</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mean</td>
<td>S.D</td>
</tr>
<tr>
<td>21. Hospital staff should be friendly and courteous</td>
<td>4.42</td>
<td>.673</td>
</tr>
<tr>
<td>22. The Doctor should listen attentively to patients</td>
<td>4.44</td>
<td>.733</td>
</tr>
<tr>
<td>23. The Doctor should spent enough time with patient</td>
<td><strong>4.46</strong></td>
<td>.762</td>
</tr>
<tr>
<td>24. The hospital’s operating hours should be convenient</td>
<td>4.44</td>
<td>1.907</td>
</tr>
<tr>
<td>Overall Mean Score</td>
<td><strong>4.44</strong></td>
<td><strong>3.30</strong></td>
</tr>
</tbody>
</table>

Table 4.5 shows that overall expectation concerning empathy dimension was at a mean score of 4.44. Spending enough time with the doctor was considered the most important with a highest score of 4.46. The results indicated that patients expect the doctor to take time in examining them as the quality gap was highest (-1.34). The empathy dimension also had a negative quality gap of -1.14 indicating that expectations were also not met.

Table 4.8 also shows that overall perception of the empathy dimension had a mean score of 3.30. Perception of the personal attention of the doctor was ranked highest at 3.46. The hospital staff represents the hospital and communication is vitally important. The finding are similar to a study by Huang et al., (2010) but contrary to results by Jabnoun and Chaker(2003).
Several studies showed the importance of interpersonal relationships component of service quality regarding satisfaction (Suki et al., 2009, Padma et al., 2010, Choi et al., 2005 and Duggirala et al., 2008). The success of the service provider work is based on effective communication (Paige, 1977).

4.3: SERVQUAL gap between patients’ expectations and perception level towards service quality of the hospital.

The SERVQUAL gap is calculated as the difference between the mean score of expectations and perceptions. The SERVQUAL instrument has been empirically evaluated in the hospital environment, and has been shown to be a reliable and valid instrument in that setting (Babakus and Mangold, 1992). Other studies of health-care quality measurement (Sohail, 2003, Shahin, 2005 and de Jager et al., 2010) have also used the SERVQUAL method of analysis.

The findings of this study showed the difference between expectation and perception as shown in the table below.

Table 4.6: The SERVQUAL Gaps.

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Patients expectation</th>
<th>Patients perception</th>
<th>SERVQUAL GAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1. Tangibility</td>
<td>4.61</td>
<td>3.16</td>
<td>-1.45</td>
</tr>
<tr>
<td>Pair 2. Reliability</td>
<td>4.55</td>
<td>3.34</td>
<td>-1.21</td>
</tr>
<tr>
<td>Pair 3. Responsiveness</td>
<td>4.47</td>
<td>2.78</td>
<td>-1.69</td>
</tr>
<tr>
<td>Pair 4. Assurance</td>
<td>4.54</td>
<td>3.45</td>
<td>-1.09</td>
</tr>
<tr>
<td>Pair 5. Empathy</td>
<td>4.44</td>
<td>3.30</td>
<td>-1.14</td>
</tr>
<tr>
<td>Overall Mean Score</td>
<td>4.52</td>
<td>3.21</td>
<td>-1.36*</td>
</tr>
</tbody>
</table>

Source: Research data.

Table 4.6 demonstrates the gap between patients’ expectations and perceptions.

The study shows that the overall level of perceptions of all dimensions was lower than level of expectations. This negative gap of -1.36 indicates that patients are not satisfied with the services. Generally patients have high expectations toward service quality as supported by similar results from several studies by accomplished in Cyprus (Arasli et al., 2008), Turkey (Taner et al., 2006) and Taiwan (Deng Juin et
al., 2009, Lin et al., 2009). The results show that overall expectation towards the five dimensions was at 4.52 and perception at 3.21.

The result of patients expectation showed that tangibility dimension was at the highest level (4.61), followed by reliability (4.55), assurance (4.54), responsiveness (4.47), and empathy (4.44). Most patients expected medication to be always available and treatment to be done on time as well as medical staff to be assertive to assist patients and treating patients with respect.

Overall perception towards the five dimensions was at (3.21). Most patients perceived assurance as the most important dimension at (3.45), followed by reliability (3.34), empathy (3.30), tangibility (3.16), and responsiveness (2.78). In this study, assurance dimension was the most vital factor. Most patients identified the importance of privacy during consultation as well as being treated with respect. The responsiveness dimension was the most important dimension with the highest negative gap (-1.69). The study revealed that physical evidence such as uniforms, appearance and behavior of staff and services capes yield patient satisfaction. Hence, patients place great importance on the appearance neatness of the hospital and its staff (Karassavidou et al., 2008).

In this study, the lowest gap was seen in assurance and the highest gap was related to the tangibility as in the study by Andaleeb et al., (2007). The lowest and highest gaps were seen in assurance and empathy, respectively, as in the study by Zarei et al., (2012) and (de Jegar et al., 2010) and the lowest and highest gaps values were seen in reliability and responsiveness.

4.4: The Paired Sample T-tests.

The paired T-test was used to clarify whether or not the difference in the means of the total perceptions and expectation scores assigned by patients are statistically significant. In order to run the paired t-test, the assumption is that the data normally distributed.

So a paired t test and repeated measures ANOVA was used to test the data. To test whether the data was normally distributed a Q-Q plot was used for both expectations and perceptions. The two Q-Q plots are given on figure 4.1 below.
The Q-Q plot for perception appears perfect while the one for expectation is not perfect but shows normality.

![Normal Q-Q Plot of Perception](image1)

![Normal Q-Q Plot of Expectation](image2)

**Figure 4.1**: Q-Q plots for perceptions and expectations variables.

Table 4.7 and 4.8 show the results of the paired samples t-test. The difference between the means is -1.36. The result however does not report the size of the difference between expectation and perception scores. For the magnitude of the difference to be assessed, the following calculation was done using the following formula:

\[ r \text{ (size effect)} = t^2/(t^2 + df) = -1.36 \]

According to Cohen (1988), the size effect is interpreted as follows:

- \( r = 0.1 \) – small effect
- \( r = 0.3 \) – middle effect
- \( r = 0.6 \) – large effect.

The size effect value for the difference between means of perceptions and perceptions is therefore a large effect.

Moreover the table 4.8 shows a statistically significant difference between means of expectations and perception score t (10.023; df49; p<0.05), which means that what the patient expected before treatment is not what he/she perceived after the treatment. The mean gap was -1.36 (95% CI 1.01-1.6).
Table 4.7: Paired Samples Test (total expectations and perceptions of patients).

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expectation</td>
<td>4.5608</td>
<td>50</td>
<td>.46951</td>
<td>.06640</td>
</tr>
<tr>
<td>Perception</td>
<td>3.2046</td>
<td>50</td>
<td>.83818</td>
<td>.11854</td>
</tr>
</tbody>
</table>

Source: Research data.

Table 4.8: Paired Samples Test

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>T</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expectation - Perception</td>
<td>1.3562</td>
<td>.95675</td>
<td>.13531</td>
<td>1.08429 - 1.62811</td>
<td>10.023</td>
<td>49</td>
<td>.0001</td>
</tr>
</tbody>
</table>

Source: Research data.
Table 4.9: Paired samples t-test (means of expectations and perceptions by dimensions)

<table>
<thead>
<tr>
<th>Pair</th>
<th>Dimension 1</th>
<th>Dimension 2</th>
<th>Paired Differences</th>
<th>T</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td>Tangibility:E-Tangibility:P</td>
<td>1.4520</td>
<td>1.0252</td>
<td>.1450</td>
<td>1.1606</td>
<td>1.7434</td>
</tr>
<tr>
<td>Pair 2</td>
<td>Reliability:E-Reliability:P</td>
<td>1.2120</td>
<td>1.0548</td>
<td>.1492</td>
<td>.9122</td>
<td>1.5118</td>
</tr>
<tr>
<td>Pair 3</td>
<td>Responsiveness:ER-Responsiveness:P</td>
<td>.7720</td>
<td>1.1486</td>
<td>.1624</td>
<td>1.4456</td>
<td>2.0984</td>
</tr>
<tr>
<td>Pair 4</td>
<td>Assurance:E-Assurance:P</td>
<td>1.0960</td>
<td>.9982</td>
<td>.1412</td>
<td>.8123</td>
<td>1.3797</td>
</tr>
<tr>
<td>Pair 5</td>
<td>Empathy:E-Empathy:P</td>
<td>1.2490</td>
<td>1.07469</td>
<td>.15198</td>
<td>.9438</td>
<td>1.55442</td>
</tr>
</tbody>
</table>

Source: Research data.
The result showed that the mean gap scores were statistically different for all dimensions ($P<0.05$; $df=49$ for all cases) as shown in table 4.9 above similar to results of study by Baker et al., (2008).

![Chart showing mean gaps by dimensions](chart.png)

**Figure 4.2: Means of expectations and perceptions by dimensions.**

As shown in figure 4.2, the means of expectation scores are greater than the means of perception scores in all dimensions in the questionnaire. In order to check whether these differences are statistically significant or not, a further paired samples $t$-test was applied for each pair of the five dimensions as shown in table 4.9.

### 4.5: The relationship between means of scores and demographic factors.

Data were also analysed for the effect of age, sex, occupation, level of education and level of income on means of scores. A repeated measures ANOVA was used to test for the mean gap scores of patient’s expectation and perception but controlled with the above factors. In the repeated measures the dependent variable was taken to be ‘gap’, a variable which was created within ANOVA ($new=$the mean gap between perception and expectation).
1: Monthly income:

**Table 4.10: ANOVA for SEVQUAL scores by income level ;( within subjects contrasts)**

<table>
<thead>
<tr>
<th>Source</th>
<th>gap</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>gap</td>
<td>Linear</td>
<td>28.981</td>
<td>1</td>
<td>28.981</td>
<td>61.517</td>
<td>.0001</td>
</tr>
<tr>
<td>gap* income level</td>
<td>Linear</td>
<td>.756</td>
<td>3</td>
<td>.252</td>
<td>.535</td>
<td>.661</td>
</tr>
<tr>
<td>Error(gap)</td>
<td>Linear</td>
<td>21.671</td>
<td>46</td>
<td>.471</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Research data.

According to the result of the ANOVA test, there is no significant difference in means of scores in terms of income level $F(61.577); p=0.661$ within subjects (table 4.10), and $F(1816.633; p=0.761)$ between subjects (table 4.11). This result is contrary to findings of similar previous studies (Rogut et al., 1996 and Young et al 2000) in which those with high income were dissatisfied with quality of care.

**Table 4.11: ANOVA for SERVQUAL scores by income ;( Between-Subjects Effects)**

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>878.064</td>
<td>1</td>
<td>878.064</td>
<td>1816.633</td>
<td>.0001</td>
</tr>
<tr>
<td>Income level</td>
<td>.566</td>
<td>3</td>
<td>.189</td>
<td>.390</td>
<td>.761</td>
</tr>
<tr>
<td>Error</td>
<td>22.234</td>
<td>46</td>
<td>.483</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Research data.
2: Education level.

Table 4.12: AVOVA for SERVQUAL scores: Within-Subjects Contrasts (education level).

<table>
<thead>
<tr>
<th>Source</th>
<th>gap</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>gap</td>
<td>Linear</td>
<td>22.079</td>
<td>1</td>
<td>22.079</td>
<td>51.577</td>
<td>.0001</td>
</tr>
<tr>
<td>gap * education</td>
<td>Linear</td>
<td>3.163</td>
<td>4</td>
<td>.791</td>
<td>1.847</td>
<td>.136</td>
</tr>
<tr>
<td>Error(gap)</td>
<td>Linear</td>
<td>19.264</td>
<td>45</td>
<td>.428</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Research data.

The results in table 4.12 and table 4.13 indicate there is no significant difference in means of scores in terms of education level of patients F (51.577; p=0.136) within subjects and F(1105.310; p=0.94) between subjects. Hargraves et al., (2001) found education level to affect significantly the perception of quality of care, contrast to findings of this study.

Table 4.13: ANOVA for SERVQUAL scores: Between-Subjects Effects (education level)

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>471.272</td>
<td>1</td>
<td>471.272</td>
<td>1105.310</td>
<td>.0001</td>
</tr>
<tr>
<td>education</td>
<td>3.613</td>
<td>4</td>
<td>.903</td>
<td>2.119</td>
<td>.094</td>
</tr>
<tr>
<td>Error</td>
<td>19.187</td>
<td>45</td>
<td>.426</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Research data.
3: Occupation.

Table 5.14: ANOVA for SERVQUAL scores: Within: Subjects Contrasts (occupation)

<table>
<thead>
<tr>
<th>Source</th>
<th>gap</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>gap</td>
<td>Linear</td>
<td>22.090</td>
<td>1</td>
<td>22.090</td>
<td>46.944</td>
<td>.0001</td>
</tr>
<tr>
<td>gap * occupation</td>
<td>Linear</td>
<td>1.722</td>
<td>5</td>
<td>.344</td>
<td>.732</td>
<td>.603</td>
</tr>
<tr>
<td>Error(gap)</td>
<td>Linear</td>
<td>20.705</td>
<td>44</td>
<td>.471</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Research data.

The results in table 4.14 and 4.15 indicate that there is no significant differences in means of scores in relation to patient occupation, F (46.944; p=0.603) within-subjects and F(1927.592;p=0.380) between subjects. The results were similar to findings by Roseheck et al., (1997) and Habbal (2005).

Table 5.15: ANOVA for SERVQUAL scores: Between-Subjects Effects (occupation)

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>888.810</td>
<td>1</td>
<td>888.810</td>
<td>1927.592</td>
<td>.0001</td>
</tr>
<tr>
<td>occupation</td>
<td>2.512</td>
<td>5</td>
<td>.502</td>
<td>1.089</td>
<td>.380</td>
</tr>
<tr>
<td>Error</td>
<td>20.288</td>
<td>44</td>
<td>.461</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Research data.
4: Age

Table 4.16: ANOVA for SERVQUAL scores: Within-Subjects contrasts (age).

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>gap</td>
<td>Linear</td>
<td>38.012</td>
<td>1</td>
<td>38.012</td>
<td>81.852</td>
</tr>
<tr>
<td>gap * age</td>
<td>Linear</td>
<td>.600</td>
<td>2</td>
<td>.300</td>
<td>.646</td>
</tr>
<tr>
<td>Error(gap) Linear</td>
<td>21.827</td>
<td>47</td>
<td>.464</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Research data.

Table 4.17: ANOVA for SERVQUAL Scores: Between-Subjects Effects (age)

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>intercept</td>
<td>1128.421</td>
<td>1</td>
<td>1128.421</td>
<td>2351.540</td>
<td>.0001</td>
</tr>
<tr>
<td>age</td>
<td>.246</td>
<td>2</td>
<td>.123</td>
<td>.257</td>
<td>.775</td>
</tr>
<tr>
<td>Error</td>
<td>22.554</td>
<td>47</td>
<td>.480</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Research data.

The results in table 4.16 and table 4.17 show that there no significant differences in means of scores in terms age F (81.852; p=0.529) and F (2351.540; p=0.775). The result is contrary to findings by (Rosenheck et al., 1997 and Young et al., 2001, Zarei et al 2012) in which the younger patients were more critical about quality of care.
4: Sex

Table 4.18: ANOVA for SERVQUAL scores: Within-Subjects Contrasts (sex)

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>gap</td>
<td>45.046</td>
<td>1</td>
<td>45.046</td>
<td>96.905</td>
<td>.0001</td>
</tr>
<tr>
<td>gap * sex</td>
<td>.114</td>
<td>1</td>
<td>.114</td>
<td>.246</td>
<td>.622</td>
</tr>
<tr>
<td>Error(gap)</td>
<td>22.312</td>
<td>48</td>
<td>.465</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Research data.

Table 4.19: ANOVA for SERVQUAL scores: Between-Subjects Effects (sex).

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>1440.260</td>
<td>1</td>
<td>1440.260</td>
<td>3060.401</td>
<td>.0001</td>
</tr>
<tr>
<td>sex</td>
<td>.211</td>
<td>1</td>
<td>.211</td>
<td>.447</td>
<td>.507</td>
</tr>
<tr>
<td>Error</td>
<td>22.589</td>
<td>48</td>
<td>.471</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Research data.

Similarly the results in table 4.18 and table 4.19 show no significant differences in means score in relationship to sex. F (96.909; p=0.622) and F (3060.401; p=0.507). However this was contrary to findings by (Hargraves et al., 2001 and Rosenheck et al., 1997, Zarei et al., 2012) as females were more critical about quality of service provided.
4.6: Potential for patients to recommend the hospital to others.

Customer satisfaction is essential for generating referrals and repeat business which is the fundamental value for all marketing activities. (Zineldin, 2006)

Table 4.20: The willingness to recommend the hospital to others (%).

<table>
<thead>
<tr>
<th>Potential to refer</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>64</td>
</tr>
<tr>
<td>Yes</td>
<td>36</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Research data.

Table 4.20 shows most patients (64%) would not refer or possibly return to Bindura Provincial Hospital. 36% were satisfied with quality of care given. The findings clearly shows that patients are not satisfied with the service quality being provided by the Bindura Provincial Hospital thus the majority of them cannot refer any patient to the hospital. The result is consistent with previous studies according to which doctors’ competence, availability of drugs and interpersonal skills are strong predictors for recommendation of the hospital (Cheng et al., 2003, Munyaka et al., 2010).

4.7: Overall patient satisfaction.

The table 4.21 below shows the percentage of patients who were satisfied and dissatisfied with quality of healthcare service at Bindura hospital out patients department. Long waiting time, unavailability of drugs and doctors were the main reason for dissatisfaction. Vukmir (2006) and Salsa et al (2008) also found waiting time to be the determining factor for dissatisfaction in an emergency department.
Table 4.21: Overall patient satisfaction (%)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>neutral</td>
<td>8%</td>
</tr>
<tr>
<td>satisfied</td>
<td>32%</td>
</tr>
<tr>
<td>dissatisfied</td>
<td>60%</td>
</tr>
</tbody>
</table>

Source: Research data.

4.8: Patients suggestions towards service quality of the hospital.

Table 4.22: Patients suggestions (Number of respondents Percentage).

<table>
<thead>
<tr>
<th></th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliments</td>
<td>40</td>
</tr>
<tr>
<td>Complaints</td>
<td>60</td>
</tr>
</tbody>
</table>

N=50

Source: Research data.

Table 4.22 shows that the majority of patients (60%) complained against the hospital services. Patients reported that drugs are not always available, as well as the availability of doctors at all times. Thereafter, they felt very uncomfortable during their visit. Staff was not treating patients with respect; patients were uncomfortable with lack of strict confidentiality during consultation and diagnosis. The doctors were not available most of the time. On the other hand, only 40% of respondents made compliments that the staff was very cheerful and smartly dressed.

In conclusion, the result showed a negative gap of -1.36 t (10.023; df.49p<0.05) of between Patients expectation and perception towards service quality of Bindura provincial hospital. Patients’ perception level was lower than their expectation.
It is obvious that most Patients felt dissatisfied with the service quality of the staff at Bindura provincial hospital.

4.7 Summary of the Chapter

The chapter focused on presentation, discussions and analysis of the findings from the research instruments. Tables and figures were used to present and analyse findings. The next chapter will provide conclusions and recommendations by the researcher.
CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0: Summary of findings.

Service businesses have been growing rapidly in recent decades, while customer demand for high quality service is increasing. This is certainly the case at the Bindura Provincial Hospital in Bindura. To remain competitive, the hospital needs to analyze patients’ expectation and perception towards the service quality of its staff and the services capes.

The results showed a negative gap between perceptions and expectations. Tangibility was determined to be the most important dimension with the highest score of 4.6. The staff also failed to understand and exceed patients’ expectations of service quality in all dimensions.

The results revealed that the assurance dimension raised the lowest SERQUAL gap of -1.096 at t (7.764; df 49; p<0.05). This indicates that patients’ expectations were closely met by the assurance dimension.

The responsiveness dimension had the largest SERVQUAL gap of -1.772 at t (10.909 df; 49 p<0.05). The results implicate the need to improve the availability of drugs and doctors all the time as suggested from patients’ comments.

This study focused on the gap between patient’s expectation and their perception of service quality. The results showed that the overall mean score of expectation was higher than perception in all dimensions, yielding a negative SERVQUAL gap of -1.36 at t’ (10.023; df 49; p<0.05). Hence, patients were not generally satisfied with all dimensions of service quality. The means of scores did not show any statistically significant differences in terms of demographic characteristic of the respondents.
5.1: Conclusions.
In this study, the findings showed that most respondents identified assurance as the most important factor in determining service quality. Moreover, their perception of service was exceeded by their expectation.

A possible explanation is that there is a difficulty defining the adequate and desired level of expectations on service quality due to distinctive characteristics of healthcare services and its complex and risky nature. In general, expectations were higher than perceptions and it shows that there is room for quality improvement initiatives in all the five dimensions.

5.2 Implications of the Study:

1. Responsiveness was shown to be the weakest dimension of service quality. Therefore, hospital management should aim to improve on drug availability, increase the number of doctors and minimize patient waiting time to be acceptable.

2. Assurance was shown to be the strongest dimension of service quality. Therefore, hospital management should maintain and improve the attributes of assurance service quality at the hospital.

5.3: Recommendations.

1. Further study should be undertaken to apply the results of this study. The research could be broadened to include in-patients and other hospitals in other provinces.

2. It would be valuable to conduct further research concerning patient’s attitudes towards the quality of other service businesses in the health care sector. Patients’ beliefs, perceptions and expectations cannot be fully captured in closed questionnaires. Therefore, the use of qualitative research along with quantitative methods in future studies should provide understanding of complex issues of quality in the healthcare sector. Further research in these areas would contribute to overall improvement of health services standards throughout Zimbabwe.

3. Public health sector should invest in analysis of patients’ perceptions of performance of a hospital as an ongoing and formalized basis and carry out proper staff and management training in customer care.
4. It is also suggested that SERVQUAL scores can be used in staff performance appraisals.

5. Management to carry out clinical audits to assess healthcare practices by healthcare professionals.
REFERENCES


Annual Reports. Bindura Hospital, 2005-2012.


Health services study (2008). MOHCW; Zimbabwe.


National Health Strategy 2009-2013 .MOHCW; Zimbabwe.


Appendix A

The Questionnaire.

Survey Number________________________

Dear participant,

My name is Farayi Chifamba and I am a student at the Graduate School of Business of Bindura University of Science Education studying towards a Master’s Degree in Business Leadership. I am assessing the quality of healthcare provided at Bindura Provincial Hospital, Zimbabwe. I would like to know your opinions about the quality of healthcare you have received at this institution. Your participation in this survey will help me gain an understanding on the quality of healthcare services.

This survey is part of my Master’s dissertation and your help is crucial for my successful completion of this research project. This study will greatly contribute to defining how to improve the quality of healthcare services in public health institutions. The questionnaire is anonymous and the information you provide will be kept confidential.

Section A: Socio-demographic characteristics.

Please attempt to answer all the questions and tick √ the appropriate box.

1. What is your age in Years? 16-32 □
   33-49 □
   50-66 □

2. What is your sex? male □ female □

3. What is your marital status? married □ single □
   Divorced/separated □ widowed
4. What is your highest level of education attainment?
   - No education
   - Primary level
   - O level
   - A Level
   - Tertiary/university
   - Other (specify)

5. What is your occupation?
   - Unemployed
   - Self-employed
   - Civil servant
   - Private sector
   - Student
   - Other (specify)

6. Average family income per month $...........................(immediate family)
7. Total number of visits to the hospital during last six months.............................(individual visits)
8. How are you going to pay for the treatment?
   - 1. Cash
   - 2. Free
   - 3. Medical aid
   - 4. Social welfare

Section B: Patient expectations.

Below is a list of statements describing expected hospital services quality? Please tick √ the appropriate answer in the box.

Scale: 1=Strongly disagree, 2 =Disagree, 3=Neutral, 4=Agree, 5=Strongly agree.

<table>
<thead>
<tr>
<th>No</th>
<th>Tangible statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The hospital should have up-to-date and well maintained equipment.</td>
</tr>
<tr>
<td>2</td>
<td>Cleanliness and hygiene should be excellent.</td>
</tr>
</tbody>
</table>
3. The hospital staff should be clean and well groomed.

4. The hospital should provide information on hospital services.

5. The waiting room should be comfortable.

**Reliability statements**

6. The hospital should provide treatment, diagnostic services and other services promptly.

7. When a patient has a problem, the staff should show sincere interest to solve it.

8. The doctors should explain to patients about their health conditions, diagnosis and treatment in an understandable way.

9. Nurses/doctors should explain to patients exactly when and what they are going to do regarding your treatment.

10. Doctors should examine patients carefully.

**Responsiveness statements.**

11. Doctors should be available all the time.

12. Doctors/nurses should be willing to help patients.

13. Patient registration should be simple and trouble free.

14. Waiting time for services should be acceptable.

15. Prescribed drugs were available at the hospital pharmacy.

**Assurance statements.**

16. The doctors should be competent to treat patients.

17. Patients should feel confident when receiving medical treatment.

18. Patients should be provided privacy during consultation and treatment.

19. Hospital staff should treat patients with respect.

20. Doctors/nurses should be willing to answer patients’ questions.

**Empathy statements.**

21. Hospital staff should be courteous and friendly.

22. Doctors should listen to patients’ attentively.

23. Doctors should spend enough time with a patient.

24. Operating hours should be convenient to patients.
Section C: Patient perceptions.

Below is a list of statements describing your perception about the service you have received? Please tick \( \sqrt{\text{ }} \) the appropriate box. Scale: 1=strongly disagree, 2=disagree, 3= Neutral, 4=Agree, 5=strongly agree.

<table>
<thead>
<tr>
<th>No</th>
<th>Tangible statements.</th>
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<th>3</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>The hospital has up to date and well maintained equipment.</td>
<td></td>
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</tr>
<tr>
<td>2</td>
<td>Cleanliness and hygiene were excellent.</td>
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<tr>
<td>3</td>
<td>The hospital personnel are clean and well groomed.</td>
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<tr>
<td>4</td>
<td>I was thoroughly provided with all information that I needed.</td>
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<tr>
<td>5</td>
<td>The waiting room was comfortable enough.</td>
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Reliability statements.

<table>
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<tbody>
<tr>
<td>6</td>
<td>I was provided treatment, diagnostic and other services promptly.</td>
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<tr>
<td>7</td>
<td>When I faced a problem, the staff showed willingness to help me.</td>
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<tr>
<td>8</td>
<td>The doctor explained to me about my health conditions, diagnosis and treatment in an understandable way.</td>
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<tr>
<td>9</td>
<td>The nurses/doctors explained to me when and what they were going to do regarding my treatment.</td>
<td></td>
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<tr>
<td>10</td>
<td>The doctor examined me carefully.</td>
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Responsiveness statements.

<table>
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<tr>
<th>No</th>
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<th>3</th>
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</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Doctors were available all the time</td>
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</tr>
<tr>
<td>12</td>
<td>Doctors/nurses were willing to help me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Patient registration was simple and trouble free.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Waiting time was acceptable.</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Prescribed drugs were available from the hospital pharmacy.

Assurance statements.

16. The doctor was competent to treat my health condition.

17. I felt confident while receiving medical treatment.

18. I was provided privacy during consultation and treatment.

19. Hospital staff treated me with respect.

20. Doctors/nurses were willing to answer all my questions.

Empathy statements.

21. Hospital staff was friendly and courteous.

22. The doctor listened to me attentively.

23. The doctor did spend enough time with me.

24. Operating hours are convenient for me.

Section D: Patient satisfaction.

Please tick √ the appropriate answer with the box.

1. What is the overall level of your satisfaction with this hospital existing services?

   Very satisfied 1

   Satisfied 2

   Neutral 3

   Dissatisfied 4

   Very dissatisfied

Please give your suggestions for improvement of hospital services------------------------
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2. Will you recommend this hospital to your friends and family members?

   YES
Thank you for participating.