OUTPATIENT PERCEPTION OF SERVICE QUALITY AND ITS IMPACT ON SATISFACTION AT GAUTENG PUBLIC HOSPITALS

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by

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DECLARATION

I declare that Outpatient perception of service quality and its impact on satisfaction at Gauteng public hospitals is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references and that this work has not been submitted before any other degree at any other institution.

SIGNATURE DATE ……..

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(DICKSON E.R CHIDA)

ABSTRACT

Purpose – To examine the relationship between outpatient service quality expectation, perception and their effect on satisfaction at Gauteng public hospitals.

Problem - Gauteng Public healthcare facilities are perceived to be offering deficient and poor quality service to their outpatient clients.

Methodology – The SERVQUAL questionnaire tool is used, it encompasses the six dimensional structures of quality. 406 outpatients at public hospitals are the respondents.

Limitations – Data collection environment could have led to the collection of inaccurate data. Data collection errors could exist due to the fact that the field workers had to translate questions for the candidates. These limitations limit the conclusions that can be drawn on the study.

Findings/implications – The majority of outpatient expectations are not met. Patients are dissatisfied with the overall service quality provided by their outpatient departments. This has the effect of making patients reluctant to attend such facilities and could lead to treatment non compliance.

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CHAPTER 1
Orientation

1.1 Background to Study

In today's highly competitive healthcare environment, hospitals increasingly realise the need to focus on service quality as a means to improve their competitive position (Lim and Tang, 2000). In the healthcare industry, hospitals provide the same types of services, but they do not provide the same quality of service (Youssef, Nel and Bovaired, 1996). South Africa's history can be said to play a major role in determining the above. In 1994, South Africa abolished the apartheid system of governance. During apartheid, the majority of the population had inadequate access to basic services such as healthcare, clean water and sanitation. During apartheid, up to 55% of the population lived in poverty and up to 53% of the population lived in rural areas. The vast majority of these people were poor (South Africa. Central Statistical Service, 2001.). The change in the system of governance meant, among other things, that South Africans could live anywhere they chose in the country. Such a change allowed many black South Africans to move from their rural homelands to the large cities. Population figures show that in 1996, 18.1% of the South African population lived in Gauteng Province; this figure gradually rose to 20.2% of South Africa's population in 2007 (South Africa. Central Statistical Service, 2007.). This growth cannot only be attributed to the movement of people within the country, but also to the influx of foreign nationals that sought refuge and better economic prospects in provinces such as Gauteng.

Fragmentation and bureaucratic waste were major features of government under the apartheid regime (McIntyre, Bloom, Doherty & Brijlal, 1995). These inefficiencies were also present in hospital management. The South African government, since it came to power in 1994, has been trying to rejuvenate the public healthcare system. This has been mainly due to the fact that by 1994 the major floors of the apartheid healthcare system were well understood (McIntyre *et al.*, 1995). For instance, during apartheid, services were largely based on race, geographic location and socio-economic status. The public

health sector was notoriously fragmented and inefficient, and concentrated inappropriately on providing sophisticated hospital care in urban settings. The private sector consumed the bulk of healthcare resources, but provided for only a fraction of the country's population. Since 1994 the South African government has tried and redress these inequities in their rejuvenation plan, but a number of aspects have negatively affected their attempts. It is the impact of these effects on the quality of service provided to public hospital patients, in particular outpatients, which this research seeks to investigate. The following points form the backbone of these negative effects:

- The increased exclusion, during the course of the 1990s of high-risk individuals from health insurance and medical schemes led to shrinking coverage in the private sector, as well as the dumping of private patients on the public sector once their benefits had been consumed. This increased the burden on the public sector, potentially jeopardising the quality of the care that could be provided to the truly indigent (McIntyre *et al.*, 1995).
- South Africa, as did the rest of the world, experienced an increase in private healthcare costs. This meant that fewer people could afford private healthcare services. In South Africa this has only further marginalised the poor. Such people have no option but to make use of the public healthcare facilities and hence further increase the already huge load that the public facilities already carry (McIntyre *et al.*, 1995).
- The international shortage of healthcare professionals caused an exodus of medical professionals from the public to the private sector where remuneration is higher, and even more so out of the country to western countries where remuneration is even greater. This meant that the over-loaded public hospitals were also short staffed. A shortage of resources such as staff in hospitals has been linked to increased medical errors (Kumar and Steinebach, 2008). Kumar and Steinebach, (2008), recommend that Primary healthcare providers should strongly consider investing in adequate doctor and nurse staffing, and improving their education related to the quality of service delivery to minimize clinical errors.

There is insufficient data is available on medical errors in South Africa. However to achieve service excellence, hospitals must strive for 'zero defections', retaining every customer/patient that the hospital can profitably serve (Reichheld and Sasser, 1990). This can only be effectively done through quality control; nevertheless quality does not improve unless it is measured (Lim and Tang, 2000).

1.2 Problem Delineation

The South African public healthcare system is based on socialised healthcare. In such a system, public funds are used to provide a medical service to part or the whole of a country's population (Walshe and Smith, 2006). A country's history has an effect on the demographics; infrastructure and the intellectual capacity the country has to offer. These aspects in return affect the quality of service a customer/patient will receive from such public institutions. Gauteng Province has the highest population density in the country, this is because Gauteng is the smallest province in South Africa, but at the same time the most inhabited (South Africa. Central Statistical Service, 2007.).

The accessibility and quality of health services vary enormously across the country, with the poor, most of whom are black African, receiving vastly inferior care (McIntyre et al., 1995). The poor are also at a higher risk of contracting communicable diseases, mainly due to the living conditions, sanitation, and the over-crowded conditions in which they are forced to live (Vaizey, 1984). Given the above, Gauteng outpatients find they contract communicable diseases often and have no choice but to attend outpatient centres at Gauteng public healthcare facilities. It then becomes paramount to assess the perceived quality of service that these outpatients are receiving, given that their choices are limited. However, at the same time, as Gaither and Frazier (2002) state, the quality of a product or service is a customer's perception of the degree to which the product or service meets his or her expectations. In an outpatient hospital setting, a patient would thus expect to be treated in a humane manner and get a complete diagnosis, appropriate prescription, in a reasonable timeframe. Failure of which such patients may choose not to attend such healthcare facilities leading to drug resistant

strains, overcrowding at public healthcare facilities that are perceived to provide a good service and unnecessary deaths in certain cases (Alderman and Lavy, 1996). Service quality has been identified as a critical success factor for organisations to build their competitive advantage and increase their competiveness. According to CGI Group Inc. (2001), the very nature of competitive advantage is evolving. The advent of the information super-highway and the digital era has enabled organisations to easily match current differentiators whilst simultaneously creating new ones. Competitive advantage has thus evolved from price to quality to customer service to real time performance to individualisation.

1.3 Purpose of the Research

Although many service organisations recognise the importance of service quality, very little empirical study has been undertaken about it, particularly in the quality of healthcare provided to public hospital patients in South Africa. In light of the overwhelming overseas literature and experiments regarding the subject, this study attempts to fill the void in the South African public healthcare sector.

1.3.1 Objectives of the study

The research objectives of this study are to:

- provide a profile of the service environment that Gauteng public hospital outpatients have available to them
- examine the outpatient expectations of the service quality at Gauteng public hospitals
- examine the outpatient perception of the service quality at Gauteng public hospitals
- determine whether there is incongruity between patients' expectations of service quality and what they perceive to receive and the effect of this on their satisfaction
- determine the level of satisfaction among the outpatients with respect to the quality of service that they are receiving at Gauteng public hospitals

- determine if outpatient expectations and perceptions are gender or race related
- devise strategies that can be implemented to improve the current situation.

Alderman and Lavy (1996) reported that the demand for healthcare is sensitive to quality of the service provided. They explain that even poor households limit their demand for healthcare when services are of poor quality. Hence, even though public healthcare may be free in South Africa we find that people with serious communicable diseases, such as the Extensively Drug Resistant Tuberculosis (XDR–TB) are reluctant to attend such healthcare facilities, due to the quality of service they will receive. Alderman and Lavy (1996) state that whether households benefit from government expenditures on health care depends on the quality of the services delivered and how households respond to that quality.

Gronroos (2000), on the other hand, states that the level of service will vary between what is perceived by the receiver and what is provided by the healthcare professional. For this reason there is a need to investigate if the quality of service being provided meets what is needed by the patient. There could be a number of reasons for the level of service provided by an organisation. These range from procedures, to staff attitude, organisational culture, availability of finance, management ability, through to human resources (Juran *et al.*, 1974). Deficiencies abound in most organisations; healthcare is no exception. When processes and people fail to achieve optimal results, they create potentially preventable patient suffering, wasted resources, and unnecessary work for colleagues and, in some cases, risk of litigation (Townsend and Gebhart, 1990).

The South African national Department of Health admitted that there was a dire need for increased collective effort towards improving the quality of healthcare service (Department of Health, 2007).

1.4 Organisation of the Study

The study is organised into six chapters. Chapter 1 identifies the research problem and the objectives and the importance of the study and the delimitations are given. Chapter 2 covers the literature review. Chapter 3 explores the problem statement and the research questions. Chapter 4 presents the research methodology. Chapter 5 covers the research findings by reporting on the empirical data collected. Chapter 6 concludes by discussing the results and giving recommendations from the study to the national Department of Health.

CHAPTER 2
Theoretical Foundation and Literature Review

2.1 Introduction

The study will first explore the subject of socialised medicine and how it functions. Focus is then turned on the background of the South African healthcare system. This will allow for a deeper understanding of the origin of the problems faced by South Africa today. Through looking at the current Gauteng Province demographics the study intends to show the available facilities as compared to their catchment areas. This will involve analysing staffing levels as well as their staff component in a section titled 'human resources'. The study will then define quality and identify its specific aspects. Service quality, in the eye of the patient, will be examined before the various methods that can be used to assess service quality are explored.

2.2 Socialised Medicine

'Socialised medicine' is defined as a system used to provide medical and hospital care for all at a nominal cost by means of government regulation of health services and subsidies derived from taxation (The American Medical Heritage Dictionary, 1995).

Socialised medicine, therefore, can refer to any system of medical care that is publicly financed, government administered, or both. Most industrialised countries, and many developing ones, operate some form of publicly-funded healthcare with universal coverage as the goal, South Africa included. Socialised medicine is essentially insured by the community and so there is no profit motive. If the socialised system under provides, the community applies political pressure to get additional provisions (Walshe and Smith, 2006). Many countries, including South Africa have signed the World Health Organization Alma-Ata Declaration, 1978, which clearly states that people have the right to be involved in the planning and implementation of their healthcare. Annett and Nickson (1991) support this by stating that involving the public gives people an enhanced sense of self-esteem and capacity to

control their own lives and reaffirms the role of managing their own health.

2.3 Background to the South African Healthcare Industry

South Africa's first democratic elections in 1994 saw the dismantling of the country's race-based healthcare system. Pre-1994 hospitals were assigned according to racial groups and most were concentrated in white areas. There were 14 different health departments and the system was characterised by fragmentation and duplication. The majority of the people had no access to primary healthcare, and the health sector was largely focused around hospitals (McIntyre *et al.*, 1995).

In their 2004/05 Annual Report, the Department of Health states that since 1994, more than 700 clinics were built and/or upgraded, 2,298 clinics upgraded and given new equipment, and 125 new mobile clinics introduced. There are now more than 3,500 clinics in the public sector (Department of Health, 2004). The South African government has developed a district-based health system to ensure local-level control of public health services, and to standardise and co-ordinate basic health services around the country. The Department of Health has 42 health regions and 162 health districts in the country (McIntyre *et al.*, 1995). In 1992/1993 South Africa spent over R30-billion on health services. This amounted to 8.5% of its Gross Domestic Product (GDP). South Africa's number of hospital beds and health personnel relative to population are average or only slightly above average for a country with its GDP per capita (McIntyre *et al.*, 1995). The accessibility and quality of health services vary enormously across the country, with the poor, most of whom are black African, receiving vastly inferior care (McIntyre *et al.*, 1995).

Infectious diseases are widely prevalent in under-developed countries; communicable illnesses kill the most in such countries (Vaizey, 1984). The above is concerning as there are substantial resources available for meeting the health needs of South Africans; however, the existence of gross inequalities in the distribution of these resources between the public and private sectors, between levels of care, and between geographical areas may

be partly to blame (McIntyre *et al.*, 1995). A major redistribution of resources is required, but this will have to be managed in order to minimise disruption. According to the Department of Health's strategic overview 2003/4 to 2009/10, various interventions to improve the quality of healthcare will be implemented. These are beginning to show, for instance in 2005/06, a national hospital improvement plan was launched and the national infection control policy finalised. In 2007/08, clinical audits will be routinely monitored in all hospitals, especially regional and tertiary hospitals. The management of complaints in hospitals will be strengthened to reduce the time it takes to address complaints. All public hospitals will be assisted to conduct and publish annual patient satisfaction surveys (Department of Health, 2003).

2.4 Gauteng Demographics

Table 2.1 shows the population density across South African provinces from 1996 to 2007.

Table 2.1: Population density across South African provinces

	EC	FS	GP	KZN	LP	MP	NC	NW	WC	ZA
Population density (people per km^2)										
1996	38.4	21.0	448.4	95.1	41.7	36.7	2.3	29.9	31.5	[1] 34.4
2003	38.3	21.1	553.5	106.0	43.7	40.8	2.3	32.6	36.6	[2] 38.1
2004	41.8	22.8	520.1	104.9	44.5	40.8	2.5	32.7	35.3	[3] 38.2
2005	41.5	22.8	530.2	104.8	45.5	40.5	2.5	32.9	35.9	[4] 38.5
2007	40.6	22.8	572.3	108.5	44.0	44.5	3.0	29.2	37.4	[5] 39.2

EC: Eastern Cape **FS:** Free State **GP:** Gauteng Province **KZN:** KwaZulu-Natal **LP:** Limpopo **MP:** Mpumalanga **NC:** Northern Cape **NW:** North West **WC:** Western Cape **ZA:** South Africa

Source: Central Statistical Service South Africa (2001:5)

Table 2.1 shows a huge disparity in the population density of Gauteng Province when compared to the rest of the provinces in South Africa. Gauteng is the smallest province; however, it has one of the highest populations in the

country, hence giving it the highest population density in the country. Such a high population density has a direct effect on the number of resources that are required to service Gauteng.

Table 2.2 shows the different populations per province in addition to the percentage change in population from 1996 to 2001.

Table 2.2: Total population by province – Census 1996, Census 2001 and CS 2007

Provinces	Census 1996	Census 2001	% Change 1996/2001	CS 2007	% Change 2001/2007
Eastern Cape	6,147,244	6,278,651	2.1	6,527,747	4
Free State	2,633,504	2,706,775	2.8	2,773,059	2.4
Gauteng	7,624,893	9,178,873	20.4	10,451,713	13.9
KwaZulu-Natal	8,572,302	9,584,129	11.8	10,259,230	7
Limpopo	4,576,133	4,995,534	9.2	5,238,286	8.9
Mpumalanga	3,124,203	3,365,885	7.7	3,643,435	8.2
Northern Cape	1,011,864	991,919	-2	1,058,060	6.7
North West	2,936,554	3,193,676	8.8	3,271,948	2.5
Western Cape	3,956,875	4,524,335	14.3	5,278,585	16.7
South Africa	**40,583,573**	**44,819,778**	**10.4**	**48,502,063**	**8.2**

Source: Central Statistical Service South Africa (2007:5)

Table 2.2 shows that in 1996, KwaZulu-Natal had the largest population of 8.6 million, followed by Gauteng at 7.6 million. The least populated province was Northern Cape with 1 million people. In 2001, KwaZulu-Natal still had the highest population of 9.6 million with Gauteng closing the gap at 9.2 million. Gauteng is marginally ranking the highest according to the CS estimate at 10.5 million while its counterpart, KwaZulu-Natal, returned a population size of 10.3 million. Gauteng had the highest percentage change of 20.4% between 1996 and 2001, while the lowest, Northern Cape, had a negative percentage change of 2.0.

Table 2.3 shows the distribution of public hospitals across Gauteng. Special hospitals refer to those handling patients with infectious, mental or chronic diseases and include Sizwe Topical Diseases, Tara H Moros, Cullinan R Cent, Sterkfontein and Weskoppies.

Table 2.3: Distribution of Gauteng public and special hospitals by district and municipality

Municipality	Public hospitals	Special hospitals
City of Johannesburg	8	2
Ekurhuleni	6	0
City of Tshwane	6	1
Sedibeng	3	0
West Rand	4	1
Metsweding	1	1
Gauteng	**28**	**5**

Source: Central Statistical Service South Africa (2004:31)

Table 2.3 shows that Gauteng has a total of 28 public hospitals. The outpatient departments of these hospitals serve many patients on a yearly basis. According to the Gauteng Department of Health, Trends Report 2004, in the period 2003/4 these outpatient departments served 3,250,102 patients. On average this works out to 450 patients a day. This inevitably results in long lines in the outpatient departments. In an attempt to quell these long queues the Department of Health introduced a referral system. The system is designed to encourage the public to make use of primary healthcare facilities, such as clinics for minor ailments. These clinics are meant to have highly trained staff and the required medicines. This is meant to ensure that the public gets treatment at medical facilities closest to their place of residence. Only if there is a need, will the clinic refer the patient to a hospital for further treatment.

The provision of healthcare services within a regional or national healthcare system can be usefully categorised and analysed through the classification of three main subsystems or sectors, primary, secondary and tertiary care. As noted above in the South African model, a typical patient journey starts with primary care for an initial diagnostic consultation, and may then involve the

patient being referred to secondary care for more highly specialised diseases or treatment. In some cases with complex or highly specialised diseases or treatments referral to tertiary institutions may be necessary (Walshe and Smith, 2006). They also state that the patient journey will often be cyclical, with a return to secondary care and then discharge back to primary care for longer term support and monitoring. This is the current adopted system in South Africa. In the USA the boundaries between the three sectors and the subsystems they create have become blurred. Walshe and Smith, (2006) state that it is common to see services once delivered predominately at local or regional hospitals now being delivered in primary healthcare settings, closer to where the patient lives or within the patient's home. One of the reasons sighted for this is technological progress, such as the provision of diagnostic testing equipment and the increasing capacity of the primary healthcare practitioners. This could be argued as the future for the South African setting.

2.5 Human Resources

The relationship between those who provide health services and the people who use them is a challenging one, positive treatment of clients begins with positive treatment of staff (Walshe and Smith, 2006). This lays a totally different spin on the argument, is government treating healthcare professionals appropriately? On the other hand are the public hospitals adequately staffed?

The concern that managers lack the capacity to lead and manage the health sector appropriately is voiced in a number of documents such as Lehmann et al., (2003). The State of the public report (2005) reports that the public service does not have enough skilled managerial staff and that increased decentralization and delegation of authority to lower levels have in many instances overloaded managers. The report also outlines that public service professionals are paid markedly less than in the private sector while environmental factors and working conditions are not conducive to the retention of such personnel.

Table 2.4 indicates the spread of health professionals in the provinces.

Table 2.4: Population by province, 2001 (compared to nurses, medical practitioners and pharmacists in the public health facilities March 2005)

Province	Population	Professional nurses	Medical practitioners (excl. specialists)	Pharmacists
KwaZulu-Natal	9,426,017	9,380	1,916	374
Gauteng	8,837,178	6,997	1,582	240
Eastern Cape	6,436,763	6,370	866	201
Limpopo	5,273,642	5,612	657	142
Western Cape	5,424,335	3,824	1,139	246
North West	3,669,249	3,040	403	105
Mpumalanga	3,122,990	2,725	536	115
Free State	2,706,775	3,475	445	102
Northern Cape	822,727	950	240	36
South Africa	44,819,778	42,373	7,784	1,561

Source: Department of Health (2004:4)

Table 2.4 offers a summary of population distribution by province, also indicating the number of health professionals (nurses, doctors and pharmacists) working in the health facilities in the provinces. It is worth noting that Gauteng, according to this table, was the second most populous province, but its proportion of health professionals is far less than that of KwaZulu-Natal, which does not have that many more people.

Healthcare delivery relies upon the ability of healthcare organisations to train and develop, then deploy, manage and engage their workforce. The challenge to healthcare managers is demonstrated through difficulties involved in getting and retaining good staff to provide high quality services as efficiently as possible. Migration of health personnel, particularly out of the country, has resulted in a shortage of personnel in the public sector. A recent Organization for Economic Cooperation and Development (OECD) study on migration of health professionals presented the following statistics of South African born workers practising a medical profession in certain OECD-member countries in 2001.

Table 2.5: South African born workers in selected overseas countries

	Practitioners	Nurses/midwives	Other health professionals	Total
Australia	1,114	1,085	1,297	3,496
Canada	1,345	330	685	2,360
New Zealand	555	423	618	1,596
United Kingdom	3,625	2,923	2,451	8,999
United States	2,282	2,083	2,591	6,956
Total	**8,921**	**6,844**	**7,642**	**24,407**

Source: Department of Health, A National Human Resources Framework Planning (2006:27)

Considering that 11,332 doctors and 41,617 nurses were working in the public sector within South Africa in 2001 (Doherty and Joffey, 2003), the above figures are disturbing. The reasons for the brain drain are much debated. The debate distinguishes between the 'pull' and 'push' factors. The former includes those factors that make other countries attractive, such as better wages, easier working conditions and opportunities for professional advancement in foreign countries. The latter comprises factors that drive staff out of the country, these include lack of management support, work overload, poor working conditions, lack of appropriate skills and emotional burnout.

2.6 Quality and Quality Assessment

The word 'quality' does not have only one definition and can be defined from several different perspectives. The context in which quality is referred to often reflects the differing perspectives of the definition of quality.

"The quality of a product or service is a customer's perception of the degree to which the product or service meets his or her expectations" (Gaither and Frazier, 2002:267).

One definition that has proved useful in many quality management programmes incorporates two simple concepts: Features and freedom from deficiencies (Townsend with Gebhart, 1990).

Deficiencies abound in most organisations; healthcare is no exception. When processes and people fail to achieve optimal results, they create potentially

preventable patient suffering (Townsend with Gebhart, 1990). A clinical process deficiency can be defined as any avoidable error or unnecessary step in the prevention, diagnosis, and treatment of a health problem. Some examples of deficiencies include:

- The time and resources that go into unnecessary care.
- The absence of necessary care.
- Wasted resources such as drugs or blood products.
- Hours in outpatient wards waiting for appropriate service.
- Practice patterns that deviate from recognised guidelines.
- Nosocomial infections (infections obtained from visiting the hospital).
- Unnecessary and inappropriate tests and treatments.

Deficiencies are costly to the patient, practitioners and the organisation and therefore must be identified and corrected. They waste time and resources. Quality refers to an error-free process (Townsend with Gebhart, 1990). Wasted resources and suboptimal patient care when present and known to patients lead to dissatisfaction, distrust and diminished loyalty. However, on the other hand, the absence of deficiencies does not lead to increased loyalty (Townsend with Gebhart, 1990). Features are defined as the aspects to patient care that attract patients that distinguish one hospital from another, such as:

- patient education videos
- pleasant waiting areas
- focused care programmes
- patient reminder cards.

It is important to pay attention to features because patients will continue to use the facilities that meet their perceived needs and expectations. The better the organisation understands the patient expectations and provides services designed to meet those expectations, the greater the attraction to that organisation (Townsend with Gebhart, 1990).

The understanding of service quality requires that service quality be defined and its dimensions classified. Gavin (1997) conceptually proposes eight

dimensions of service quality: performance, features, reliability, conformance, durability, serviceability, aesthetics and perceived quality, as shown in Table 2.6.

Table 2.6: Dimensions of quality

Performance	Refers to a product's primary operating characteristic. In services it means prompt service.
Features	Refers to characteristics that supplement product's or services basic functioning, e.g. free newspapers on a plane.
Reliability	Reflects the probability of a product malfunctioning or failing within a specified period of time.
Durability	Refers to the amount of use one gets from a product before it breaks down.
Serviceability	Refers to the speed, courtesy, competence and ease of repair.
Aesthetics	Refers to the speed, courtesy, competence and ease of repair.
Perceived quality	Refers to the firm's reputation and intangibles.

Source: Gavin (1987:104)

It can therefore be seen that each dimension is self contained and distinct. A product can be ranked high on one dimension and low on another. Quality is not a single recognisable characteristic, but rather, is multifaceted and appears in many different forms. Parasuraman, Zeithami and Berry (1988) did exploratory research that showed that criteria used by consumers in assessing service quality suited ten dimensions. These dimensions are: tangibles, reliability, responsiveness, communication, credibility, security, competence, courtesy, understanding the customer and access. Table 2.7 illustrates the dimensions.

Table 2.7: Dimensions of service quality

Dimension	Example of evaluation criteria
Tangibles	Appearance of physical facilities and personnel
Reliability	Performing service right the first time
Responsiveness	Willingness and ability to provide prompt service
Communication	Explaining service to customers in a language they can understand
Credibility	Trustworthiness of customer contact personnel
Security	Confidentiality of transactions
Competence	Knowledge and skill of customer contact personnel
Courtesy	Friendliness of customer contact personnel
Understanding/knowing customers	Making an effort o ascertain a customers specific requirements
Access	Ease of contacting service firm by telephone

Source: Parasuraman *et al*., (1988: 6)

From the above explanations of dimensions proposed, it would appear that Gavin's dimensions apply to physical products, while Parasuraman *et al.*'s dimensions apply to intangible services.

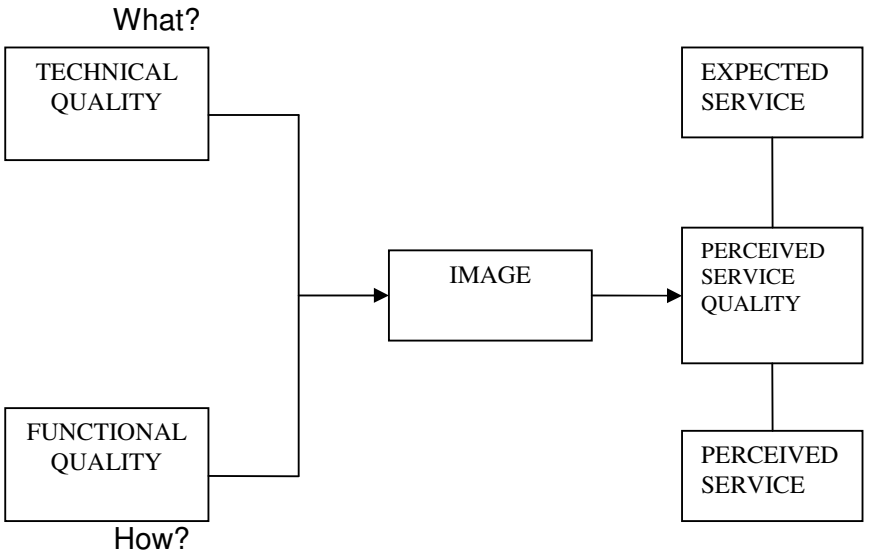
Evaluating quality requires both quality in fact and quality in perception (Townsend and Gebhart, 1990). To focus only on quality in perception is risky. Every hospital would soon be expected to report on objective performance measures to the public. Without objective performance information, in addition to favourable perceptions of quality, an unusual case of rare, but dramatically poor quality can severely tarnish that perception. Similarly, even an organisation with outstanding objective performance needs to listen to the patient's perceptions and attend to the concerns they identify (Townsend and Gebhart, 1990). Where services are described as good, a positive health provider relationship contributes significantly to patients' perception of high quality service (Rispel *et al*., 1995).

The problem with measurements of both quality in fact and quality in perception is the lack of practical tools. It is important to note that perception is usually measured by patient reports, through surveys, interviews and focus groups. Fact can also be measured through patient reports; surveys can

determine both factual quality and perceptual quality. Other sources of factual measurement are medical records and administrative databases.

Gronroos (1984) believes it is reasonable to state that the perceived quality of a given service will be the outcome of an evaluation process, where the patients compare their expectations with the service they perceived to have received. He developed a service quality model, as shown in Figure 2.1.

Figure 2.1: Service quality model

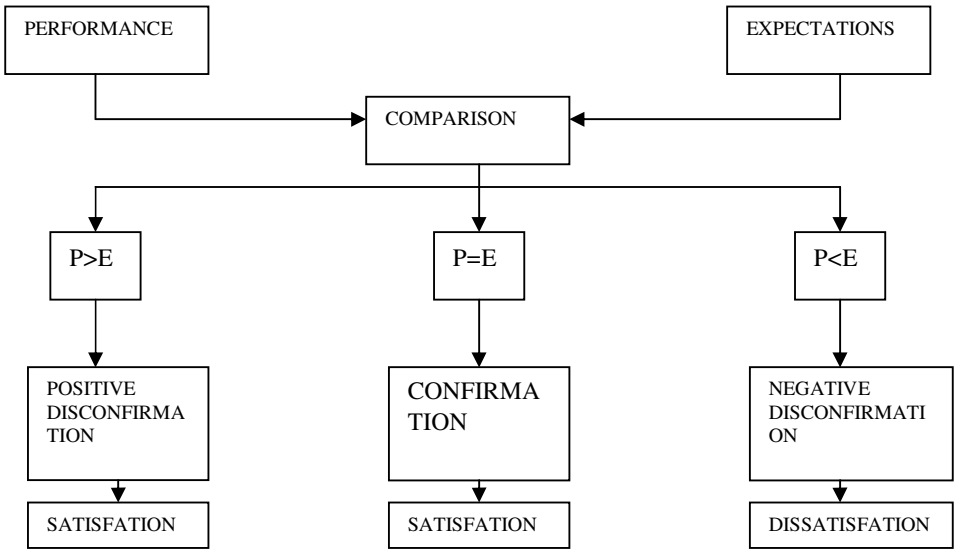


Adapted from: Gronroos (1984:40)

Gronroos (1984) argues that perceived performance (technical and functional quality) leads to making an image about the organisation, which leads to the perceived quality (expected and perceived quality).

Satisfaction: Literature on satisfaction attempts to identify the process by which consumers make evaluations of satisfaction. Expectations are compared to experienced service (performance) and then a conclusion is made from this comparison. This model is modelled by the disconfirmation paradigm (Parasuraman *et al.*, 1988).

Figure 2.2: The disconfirmation paradigm



Adapted from: Parasuraman *et al*., (1988:34)

From the above, expectations are confirmed when a product/service performs as expected (P=E), expectations are negatively disconfirmed when the product/service performs more poorly (P<E) and expectations are positively disconfirmed when the product/service performs better than expected (P>E). The patient will experience satisfaction when the expectations are confirmed or positively disconfirmed.

Service-orientated businesses need to know how their services are meeting their customers' needs and wants so that they can improve. The extent to which a patient's needs and wants are met is called customer/patient satisfaction/dissatisfaction. Lee, Khong, Dhanjoo and Ghista (2006) indicate that, in the healthcare industry, for every 100 customers that experience deficient service, about 70 customers are unlikely to patronise the same organisation again. In addition, for the same 100 customers who have experienced deficient service, about 75 of them will go on to tell on average nine family members and friends about their experiences. Through word of mouth from these 75 dissatisfied customers, there will eventually be about 465 persons who might have been potential customers, but will probably not

patronise the organisation at all based on what the dissatisfied customers have told them.

A positive experience will induce a customer to tell three people about it while a negative experience will induce a customer to tell seven other people about it (Rosen, 2001). Therefore, organisations should not only focus on creating service experiences that will induce positive word of mouth, but should also avoid service incidents that will result in negative word of mouth.

The challenge in measuring quality is identifying what the customer's expectations are and meeting them (Gronroos, 2000). Hence, whether expectations are met or not will have a bearing on the perceived quality. Gronroos (1984) believes it is reasonable to state that the perceived quality of a given service will be the outcome of an evaluation process, where patients compare their expectations with the service they perceived to have received. Hence the patient compares the perceived service with the received service and the result of this process will be the perceived quality of service. A quality assessment frequently combines various data collection methods to overcome the intrinsic biases of each method alone. These methods typically involve either some form of direct observation of health worker performance or indirect assessment of performance, such as through testing of providers, patient interview, or record review.

Examples of such methods include:

- Observation of service delivery (by expert observers, peers, supervisors)
- Mystery client method
- Audit of individual patient records
- Review of data from automated information system
- Testing (written tests, simulation with standardised patients, computer-based testing)
- Health worker interview
- Patient exit interview.

Some methods are more intrusive than others. Quality assessment methods are subject, to varying degrees, to the 'observation effect', wherein subjects are thought to perform better or possibly worse than they might in everyday practice or provide answers they perceive the interviewer wants to hear because they are aware that their performance is being assessed. The nature of the bias introduced by the observation effect is usually thought to be in the direction of overestimating performance, assuming that health workers might be performing at their very best when they think their performance is being observed. This is not always the case, however, since the presence of observers might also have the effect of making health workers nervous and undermine their performance. The mystery client method, wherein trained individuals pose as clients seeking health services unbeknownst to the providers and observe whether the providers perform certain predetermined tasks, has been cited as a promising method for reducing observation bias.

Another issue in quality assessment is the fact that health providers' performance may vary from one patient to the next or from day to day, depending on patient characteristics (for example, disease severity, cultural factors) and other situational factors (for example, total number of patients, presence of other providers, availability of drugs and supplies). Multiple measurements of provider-patient interaction or performance of the same task are needed to obtain a reliable indication of usual performance. The cost of applying the different performance assessment methods also varies widely in terms of the cost incurred to produce each unit of observation.

Quality assessment is often an initial step in a larger Quality Assurance process, which may include providing feedback to health workers on performance, training and motivating staff to undertake quality improvements, and designing solutions to bridge quality gaps. There is considerable debate in the literature regarding how service quality can be measured from the consumer's perspective. One of the debates has centred on the difference between customer satisfaction and service quality. However, general consensus has emerged from the literature, that customer satisfaction is a transaction-specific assessment whereas service quality is a global judgement

or attitude relating to service quality (O'Reilly, 2007). O' Reilly (2007) states that this distinction between customer satisfaction and service quality has implications as to how service quality is measured.

Fitzpatrick (1991) reports that customer surveys are the most frequently used tool to measure service quality from a customer perspective. The SERVQUAL instrument has been identified as one of the most frequently used measurement tools for measuring service quality (O'Connor *et al.*, 2000). The SERVQUAL is based on the premise that service quality is understood as the difference between customer perceptions and their expectations. Although the SERVQUAL has been successfully applied to different services, it has come under criticism in recent years as to whether it truly has the capability to measure service quality. One of the main criticisms centres on the five service quality dimensions identified to measure service quality. Carmen (1990) suggests that each service industry may reveal different and unique dimensions. The health service involves a high level of customer interaction and contact and the service provided has to meet the individual needs of the service user.

2.7 Summary

Chapter 2 has dealt with the theoretical foundation and literature review as a basis for Chapter 3, which will cover the research problem and research questions. It has been shown in Chapter 2 that quality is a difficult concept to define, describe and measure. Although quality and quality-control measures exist for tangible goods, few such measures exist for services. Quality in services appears to be determined by factors such as perceptions, expectations and experiences of both consumers and service providers. To satisfy their clients service providers have to know what their clients expect and match or exceed that expectation.

CHAPTER 3
Problem Statement and Research Questions

3.1 Introduction

The previous chapter covered the theoretical foundation and literature review. Factors considered being most important in the explanation of outpatient service quality and patient satisfaction were highlighted. In Chapter 3, the research problem will be stated and the research questions will be formulated.

3.2 Problem Statement

The accessibility and quality of health services vary enormously across the country, with the poor, most of whom are black African, receiving vastly inferior care (McIntyre *et al.*, 1995).

Gauteng public healthcare facilities are offering deficient and poor quality service to their outpatient clients. Outpatient service is characterised by long waiting hours, queues, inefficiency and constant patient complaints. This has a direct impact on the quality of care offered to, and received by Gauteng public healthcare facility outpatients, due to the high level of deficiencies. As noted by Townsend and Gebhart (1990), deficiencies are costly to the patient, practitioners and the organisation; hence they must be identified and corrected. Deficiencies waste time and resources.

According to Kumar, S. and Steinebach, M. (2008), statistics show that most adverse reactions to medicines are as a result of medical errors and that medical errors are a leading cause of deaths in the USA. This is important especially when considering that the demand for healthcare is sensitive to quality of service provided. Even poor households, attending a free healthcare facility will limit their demand for healthcare when services are of poor quality (Alderman and Lavy, 1996).

The primary objective of this research is to investigate how outpatients perceive service quality at Gauteng's public hospitals and the effect this has on their satisfaction/dissatisfaction with the service.

3.3 Research Questions

Based on the problem statement in sub-section 3.2 and the literature review four research questions were proposed:

Hypothesis 1

Outpatient perceptions of service quality do not meet their expectations at Gauteng public hospitals.

Hypothesis 2

Outpatient satisfaction is unrelated to the service quality dimensions at Gauteng public hospitals.

Hypothesis 3

Outpatient perception of service quality is not gender dependant.

Hypothesis 4

Outpatient perception of service quality is not race dependant.

The above hypotheses were derived from the literature review, from Parasuraman *et al*. (1988) on the dimensions of service quality. McIntyre *et al.* (1995) stated that the accessibility and quality of health services in South Africa varied enormously across the country, with the poor receiving vastly inferior care. Inferior care refers to the quality of care when compared to private hospital facilities. This emphasises the importance of assessing the correlation between patient satisfaction and the dimensions' perceived service quality.

Juran *et al*. (1974) define quality as satisfying the customer's requirements and needs. Parasuraman *et al*. (1988) developed the definition further by referring to service quality as the ability of the organisation to meet or exceed customer expectations. This shows that quality is a perceived value, which its self is affected by other factors that need to be assessed. These factors are the dimensions of quality. Feigenbaum (1997), states that the responsibility for quality must rest with the persons who do the work. This concept is referred to as quality at the source and means that every worker must be responsible for performing his or her work with perfect quality. This links into

the perceived level of operational efficiency, empathy and treatment effectiveness and hence the need for correlation investigation.

Alderman and Lavy (1996) reported that the demand for healthcare is sensitive to quality of the service provided. They explain that even poor households limit their demand for healthcare when services are of poor quality.

3.4 Summary

Chapter 3 covered the problem statement and research questions. It showed that due to South Africa's unique history, the country inherited some inherent problems that will take time to resolve, but this can only happen if enough research is done to show the most appropriate way forward. Based on the problem statement and the literature review four research questions were proposed in Chapter 3. These hypotheses are directly linked to the research objectives explored in Chapter 1. Chapter 4 will cover the research design and analysis.

CHAPTER 4
Research Design and Analysis

4.1 Introduction

In Chapter 3 the research problem was stated and four research questions were formulated. Chapter 4 gives an exposition of the methodology. The following aspects are covered: research approach, sampling, measuring instrument and data analysis and validity of the research methodology. The researcher will briefly present the approach used in gathering the primary data, drawing extensively from Cooper and Schindler (2003).

4.2 Research Approach

This research was designed to explore the match/mismatch of outpatient expectations to their perception of quality of service at Gauteng public hospitals. The discussion focuses on the survey research method. Survey research can be described as a fact-finding and hypothesis-generating process according to which data is collected in a planned manner so as to uncover the incidence, distribution and interrelation of certain variables. The data is commonly collected by means of questionnaires and usually relates to facts, opinions, beliefs, attitudes or behaviour.

Using quantitative measurements in cross-sectional surveys or experimental designs, social phenomena are assumed to be observable, and therefore, measurable and quantifiable. If the sample is representative of a larger population, the frequency or prevalence of these phenomena can be studied, and statistical applications can be applied to the data. Investigators develop the study instruments, such as a questionnaire or a checklist, and attempt to distance themselves from the study respondents in order to maximise objectivity (Steckler *et al.*, 1992). Inferences are arrived at deductively. Measurements should be reliable and unbiased and the findings should be general.

The qualitative paradigm applies anthropological methods to research in order to gain an insider's perspective in the study of social phenomena. The

approach is inductive, centred on 'discovery' of social phenomena that are unknown or may be hidden from outsiders. (In our case the perception of high or poor quality service.) Reality, which is 'co-constructed' by individuals and groups, can be seen from different perspectives. The investigator is the 'instrument' through which the data is collected, and thus, needs to be self-reflective and aware of one's own biases. Qualitative research aims to gain a better understanding of multiple, social constructions of behaviour, and the meanings attributed to the behaviour in a particular local context. While quantitative research is population-oriented, qualitative research is 'case oriented' (Steckler *et al*., 1992). This means that it is critical to understand the setting or context in which the participants are embedded. Findings from qualitative research may be 'transferable' to other settings only insofar as other settings resemble the study setting.

Traditionally, the two paradigms (qualitative and quantitative) were considered incompatible to theoretical purists. However, in recent years, public health researchers and practitioners have taken a 'pragmatic approach' (Creswell, Fetters and Ivankova, 2004), these authors argue that quantitative and qualitative methods are complementary, and that each approach has strengths that help compensate for the weaknesses of the other. Steckler *et al.* (1992) argue that social interventions, such as health education and health promotion programmes, are complex phenomena that require the application of multiple methodologies in order to properly understand or evaluate them. When both methods are used equally, the results from each approach are often used to cross validate the study findings. Using both quantitative and qualitative methods is believed to yield a richer and more complete understanding of a social phenomena or situation (Creswell, Fetters and Ivankova, 2004). The question today is not whether to use quantitative and qualitative methods in health promotion research, but rather how to combine the methods (Steckler *et al*., 1992). Several models are put forth in the literature for combining quantitative and qualitative research methods (Steckler *et al*., 1992).

The first one aims to strengthen quantitative research, in that a formative, qualitative phase informs the generation of hypotheses and the development of the quantitative data collection instrument (for example, a survey or checklist). This is the model adopted for this research. The second model aims to make sense of quantitative research. A qualitative phase follows the analysis of quantitative data, in order to help explain the quantitative findings. The third model, in which a small-scale survey follows a long period of ethnographic or qualitative data collection, is often used by anthropologists (Steckler *et al*., 1992). In the fourth model, both quantitative and qualitative data phases occur concurrently. Conclusions are drawn from each approach, and if similar conclusions are suggested, the researcher has higher confidence in the conclusions (Steckler *et al*., 1992). If the conclusions diverge, which they are likely to do; the researcher must explore aspects of the data collection, the setting, conditions, or other reasons to explain why the conclusions diverge. Gaining insight from various methods and approaches are similar to a photographer capturing the same object on film from different vantage points, at different times of day with different light, with different equipment, etc (Steckler *et al*., 1992). A richer understanding of the social phenomena ensues from using both quantitative and qualitative methods.

Qualitative research was carried out through a thematic analysis of service user feedback over a 30-day period. The results of this stage of the research process were then used to inform the development of the quantitative data collection stage using a modified service assessment questionnaire. The broad design of the questionnaire was based on the SERVQUAL questionnaire by Parasuraman *et al.* (1988) and adapted as a result of the key issues derived from stage one patient meetings to gather service user views relating to service quality.

Eight fieldworkers were each assigned a public hospital in Gauteng from which to collect data. Using questionnaires to collect information during one-to-one interviews that lasted between 15 to 30 minutes each, each fieldworker:

- Randomly selected 60 adult male and female patients from the outpatients' department of the hospital and obtained their consent for participation in the research. This was done over two different days so as to allow maximum time with each of the strata of patients.
- Went through a one-to-one interview with the patients or their guardians filling in the questionnaire as required after they had been observed and served.

4.3 Sampling

The ultimate test of a sample design is how well it represents the characteristics of the population it purports to represent (Cooper and Schindler, 2003).

A sample may be selected on a probability or non-probability basis. The probability sampling is based on the concept of random selection. Random selection is a controlled procedure that assures that each population element is given a non-zero chance of selection. In contrast, non-probability sampling is arbitrary and subjective.

Probability sampling was used in the research for the following reasons:
1. Results from the study need to be generizable for recommendations to be given.
2. The purpose of an experiment is to detect or confirm casual relationships, this lies outside the descriptive nature of this research.

The probability sampling and stratified sampling methods were used. Schnetler (1989) states that, stratified random sampling may be used when the population is heterogeneous in respect of the variable or characteristic being studied and the population can be subdivided into subpopulations or strata that are each more homogeneous in respect of the relevant variable than the population as a whole.
The identified strata were gender and age. The subjects chosen were selected from patients that were waiting to be served at outpatient

departments. The sample size was determined by considering the proposal put forward by Hofmeyer (1991) of the relationship between a given population and the required sample size. Table 4.1 illustrates this.

Table 4.1 Relationship between population and sample size

Complete population	10	100	1,000	10,000	50,000	1,000,000
Sample size	10	80	285	370	381	384

Source: Hofmeyer, 1991:1

From Table 4.1 one can deduct that the sample size grows at continuously decreasing levels as the target population increases.

4.4 Measuring Instrument(s)

There are three basic methods of communication or survey options with respondents, these include: personal interviews, telephonic interview and mail questionnaire (Du Plessis *et al*., 1990).

Personal interviews

These involve a conversation between the interviewer and the respondent. The interview can take place anywhere.

Advantages include:

- The interviewer can explain complex questions, hence avoiding misconstruing effects.
- The researcher has more control over the situation and hence can gather more information.
- There is a lower refusal rate compare to the other two methods.

Disadvantages include:

- Bias may be incorporated due to questions or answers from poorly trained interviewers.
- There could be a high cost if conducted over a large area.
- The face-to-face nature of the interview may elicit the wrong answers from sensitive questions.

Telephone interviews

This entails a technique similar to the personal interview, except that it is done over the telephone.

Advantages include:

- There are cost savings as a result of elimination of travelling expenses.
- The face-to-face bias is limited.

Disadvantages include:

- This method is only suited for the collection of limited information in comparison to the other methods.

Mail questionnaire

There is no personal contact with the respondent. For this reason this method also has its advantages and disadvantages.

Advantages include:

- Costs may be lower, especially when respondents are spread out geographically.
- Anonymity can be assured, allowing confidential information to be obtained.

Disadvantages include:

- The non-response error may be high.
- The time factor between questionnaire preparation and return may be large.

4.5 Measuring Instrument Selected

The selected measuring instrument had to meet the following requirements:

- Structured closed questions to facilitate data collection and classification.
- A target of 500 subjects that varied in age, gender and background.
- Minimise response error.
- A budget of R1,500.
- Extract enough personal information to allow for responder classification.

Given the above and the nature of the research, the mailing questionnaire was ruled out together with the telephone interview. The personal interview would be appropriate as its personal nature would allow more accurate collection of relevant data.

The measuring instrument used was a structured questionnaire, under the SERVQUAL scale with five dimensions. The questionnaire was distributed through personal interviews with the respondents being taken through the questionnaire before their contact with the outpatient department and then going through it again with the interviewer after they had been through the department. This was meant to allow easy extraction of expectations vs. perception and how both affected satisfaction. The target population for this study was defined as outpatients at the 33 public hospitals in Gauteng. The sample population was defined as outpatients at ten Gauteng public hospitals.

The SERVQUAL model has provided a comprehensive conceptualisation of service quality with an instrument to measure perceived service quality. This method has been very popular with academics and researchers to assess the customer perception of service quality for a variety of service industries (Amin and Isa, 2008).

4.6 Data Analysis

This section is divided into five portions as per the study research objectives:

- The first section presents a brief description of participants who took part in the study. These descriptive statistics are used to enhance the

information obtained from the survey and to analyse the results from the sample.

- The second section explores the comparison between the expected and perceived service quality. The measure of service superiority (MSS) is a gap score that measures if services surpassed customers' expectations. For each participant MSS = Actual level – Expected level. A positive MSS indicates service superiority and a negative MSS indicates the opposite. The degree of positive or negative MSS represents the degree of superiority or otherwise.
- The third section explores service quality ranking, by gender race and age. Cluster analysis will be used to assess the differences across hospitals. Identified clusters will be used to assess the relationship between perception and age, gender and race. Cluster analysis is an exploratory data analysis tool for solving classification problems. Its object is to sort cases (people, things, events, etc) into groups, or clusters, so that the degree of association is strong between members of the same cluster and weak between members of different clusters. Each cluster thus describes, in terms of the data collected, the class to which its members belong; and this description may be abstracted through use from the particular to the general class or type. Cluster analysis is thus a tool of discovery. It may reveal associations and structure in data, which, though not previously evident, nevertheless are sensible and useful once found.
- The fourth section presents the relative ranking of service quality dimensions by the study participants. The effects of participants' characteristics on the relative ranking are also presented.
- The fifth section explores outpatient overall satisfaction with perceived service quality.

4.7 Validity of Research Methodology

The importance of evaluating the methodology in order to determine validity is pointed out by Schnetler (1989). He concludes that a questionnaire should satisfy three objectives:

- It should meet the aims of the research.

- It should reflect accurate information on the topic of study.
- It should be practicable given the available time and resources.

Berdie and Anderson (1974) point out how a well-designed questionnaire can boost the reliability and validity of the data to acceptable tolerances.

To measure customer satisfaction with different aspects of service quality, Parasuraman *et al.* (1988) developed the SERVQUAL research instrument, which has been used in a variety of contexts including healthcare settings (Swartz and Brown, 1989). The SERVQUAL instrument requires respondents to complete a series of scales, which measure their expectations of a particular service environment on a wide array of specific service issues. Subsequently, they are asked to record perceptions of that company's performance on those same characteristics. Where perceived performance ratings are lower than expectations, this is generally regarded as a sign of poor quality while the reverse suggests a quality level that exceeds prior expectations. Since its introduction, SERVQUAL has been the subject of considerable debate and criticism at both a conceptual and operational level (Cronin and Taylor, 1992). The primary criticisms state that expectations do not play an important role in the conceptualisation of service quality and that the SERVQUAL instrument fails to draw on established economic, statistical and psychological theory.

However, Parasuraman *et al.* (1988) defended their approach insisting that past research provided strong support conceptually and empirically for service quality as a difference between expectations and perceptions (Bolton and Drew, 1991).

The suitability of the SERVQUAL instrument for assessing the level of service quality in a hospital setting has been investigated (Babakus and Mangold, 1992). The SERVQUAL instrument has been used to assess the service quality of four clinics at the university of Texas MD Anderson Cancer Center (Anderson and Zwelling, 1996).

4.8 Summary

Chapter 4 has explained the methodology of the study. Aspects such as the research approach, the sample, and data analysis and research instrument have been discussed. As the questionnaire (the research instrument) is pivotal to the success of the research, various aspects relating to the design of the questionnaire have been discussed. These include the content and the method of distribution to the target group. The validity of the research methodology was then used to show its aptness. In the next chapter the results of the survey are given and analysed using statistical methods.

CHAPTER 5
Results

5.1 Introduction

This chapter presents the results of the study. Due to the fairly large return rate, the data is presented in five sections, namely: descriptive statistics of respondents; comparison of expected and perceived service quality of service; service quality ranking; outpatient expected and actual length of stay; and outpatient overall satisfaction with quality of service.

5.2 Descriptive Statistics

The total number of respondents was 410 out of a possible 500, which represents an 82% response rate. Table 5.1 provides the general characteristics of the respondents, as well as their representation.

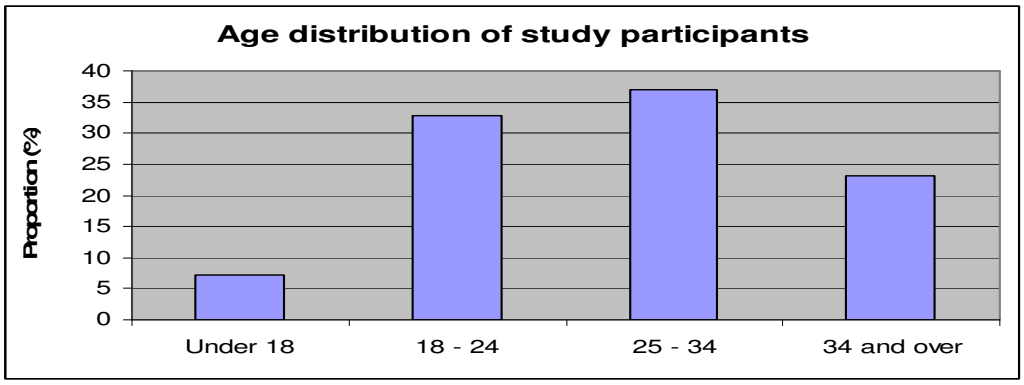
Table 5.1: Distribution of respondents by demographics

	Factor	Frequency	%
Gender	Male	**224**	**55**
	Female	**182**	**45**
Age group	Under 18	**27**	**7**
	18 – 24	**133**	**33**
	25 – 34	**150**	**37**
	35 and over	**94**	**23**
Race	Black	**364**	**90**
	Indian	**10**	**2**
	Coloured	**23**	**6**
	White	**9**	**2**
Hospital	Tembisa Hospital	**50**	**12.33**
	Johannesburg General Hospital	**50**	**12.33**
	Edenvale Hospital	**56**	**13.7**
	Pretoria Academic Hospital	**50**	**12.33**
	Chris Hani Baragwanath Hospital	**50**	**12.33**
	Leratong Hospital	**50**	**12.33**
	Ga-Rankuwa Hospital	**50**	**12.33**
	Pretoria West Hospital	**50**	**12.33**

Table 5.1 shows that male outpatients represent 55% of the respondents. The sample is representative of the eight public hospitals with each hospital providing at least 50 participants; 90% of the respondents were black, which is in line with the clientele of public hospitals and the country as a whole.

Figure 5.1 shows that the 18 to 24 and 25 to 34 age groups are the most represented of the respondents.

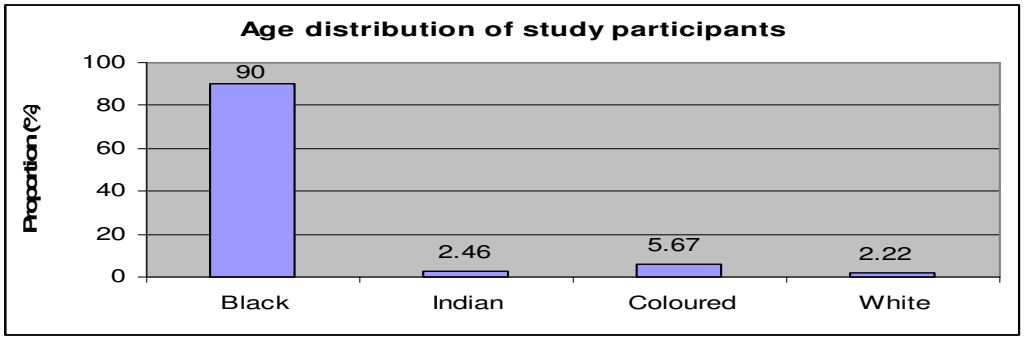
Figure 5.1: Age distribution of study participants



The under 18 age group is not well represented, with a representation of only 7%. The 34 year and over group had 93 respondents representing 23% of the 406 respondents.

Figure 5.2 shows, as summarised by Table 5.1, that the majority of the study participants were black (90%). This leaves just 10% for the other three races, Indian, coloured and white.

Figure 5.2: Age distribution of the study participants, by race



Such a distribution is partially representative of the South African population, but at the same time is a major indication of the apartheid legacy. Most of the black South Africans cannot afford private healthcare.

5.3 Comparison of Expected and Perceived Quality of Service

The Gap model of Parasuraman *et al.* was used in the evaluation of patients' expectations of service quality as compared to their perceptions thereof. The questionnaire was grouped into six critical dimensions of the Gap model as follows:

- Tangibility
- Reliability
- Responsiveness
- Assurance
- Empathy
- Accessibility and affordability.

In measuring service quality one needs to determine the significant differences in expected versus observed scores. The original performance scores (expected and perception) are reported. The measure of service superiority (MSS) is the gap score that measures if services surpass customers' expectation. For each participant MSS = Actual level – Expected level. A positive MSS indicates service superiority and a negative MSS indicates the opposite.

These three measures of service quality are presented below by dimensions. Overall, the three attributes with the highest mean expected scores are:

- The attitude of staff should instil confidence in patients – 4.98
- Patients should be treated with dignity and respect – 4.83
- Staff should explain medical condition to patients thoroughly – 4.83

The three attributes with the highest mean actual score are:

- Privacy during treatment: 4.23
- There should be adequate parking facilities for public and private transport: 4.34
- There should be ease of access to the hospital: 4.29.

5.3.1 Dimension: Tangibility (T)

Under the expectations section, tangibility proved popular, with Questions EB6 and EB9 getting the highest scores, as seen in Table 5.2. Such high scores indicate that outpatients highly expected that such tangibles would be available. However, the mean actual score (MAS) reported by respondents are significantly and consistently lower than the mean expected score (MES) for all tangibility items.

Table 5.2: T matrix

Code	Question	MAS	MES	Gap (MSS)	p-value
B5	Up-to-date and well-maintained medical facilities and equipment	3.78	4.41	-0.63	<0.001
B6	Clean, comfortable environment with good directional signs	2.39	4.78	-2.38	<0.001
B7	The staff should be professional and neat in appearance	3.77	4.51	-0.73	<0.001
B8	Informative brochures about services	1.90	4.30	-2.40	<0.001
B9	Privacy during treatment	4.23	4.72	-0.50	<0.001
B10	Toilets that are functional and pleasant	2.68	4.44	-1.76	<0.001

Question B9: I expect privacy during treatment; had the smallest gap (MSS) showing that patient expectations were almost met in this regard.

Question B5: I expect up-to-date and well-maintained medical facilities and equipment; had the second smallest gap, possibly a positive indication of the public hospital revitalisation programme.

Question B8: Informative brochures about services received the least scores under expectations, and the same time received the least scores under perceptions.

5.3.2 Dimension: Reliability (RL)

Reliability refers to dependability and steadiness of the service. One item in the reliability matrix (consistency) of charges had a positive MSS, which was statistically significant. For the other items, the mean actual scores were consistently lower than expected.

Table 5.3: R matrix

Code	Question	MAS	MES	Gap (MSS)	p-value
C11	Services should be provided on appointed days and time	1.97	4.41	-2.44	<0.001
C12	Services should be carried outright the first time	3.13	4.62	-1.48	<0.001
C13	Staff should be professional and competent	3.53	4.48	-0.95	<0.001
C14	There should be error free and fast retrieval of documents	2.29	4.37	-2.08	<0.001
C15	There should be consistency of charges	4.23	3.99	+0.24	<0.001

Question C15: There should be consistency of charges; shows a positive MSS that is statistically significant. In Questions C11 to C14 the mean actual scores are consistently lower than expected, with the lowest one being Question C11: Services should be provided on appointed days and time.

5.3.3 Dimension: Responsiveness (RS)

Responsiveness refers to the level of receptiveness, openness, sensitivity and awareness of the staff in the outpatient departments. For the responsiveness matrix, all actual scores are significantly lower than expected and the differences are the highest of all the five dimensions.

Table 5.4: RS matrix

Code	Question	MAS	MES	Gap (MSS)	p-value
D16	Patients should be given prompt service	1.66	4.51	-2.85	<0.001
D17	Staff should be responsive	1.81	4.81	-3.00	<0.001
D18	The attitude of staff should instil confidence in patients	2.22	4.98	-2.76	<0.001
D19	There should be a waiting time of not more than one hour	1.73	4.71	- 2.98	<0.001

The highest MSS is observed for Question D17: Staff should be responsive, followed closely by Question D19: There should be a waiting time of not more than one hour and Question D16: Patients should be given prompt services.

5.3.4 Dimension: Assurance (AS)

Assurance refers to the level of guarantee that outpatients will receive a particular level of service.

Table 5.5: AS matrix

Code	Question	MAS	MES	Gap (MSS)	p-value
E20	There should be friendly and courteous staff	1.62	4.69	-3.07	<0.001
E21	Staff should possesses a wide spectrum of knowledge	3.75	3.71	+0.04	0.5638
E22	Patients should be treated with dignity and respect	2.04	4.83	-2.79	<0.001
E23	Staff should explain medical condition to patients thoroughly	2.48	4.83	- 2.35	<0.001

Question E21 in the matrix of assurance had a positive MSS. Although it was slightly positive it shows that outpatient perception of hospital staff is that they possess a wide spectrum of knowledge. This difference was not statistically significant. MSS were significantly negative for Questions E20, E22 and E23.

5.3.5 Dimension: Empathy (E)

Empathy refers to the level of understating, sympathy and compassion given by staff in an outpatient department.

Table 5.6: E matrix

Code	Question	MAS	MES	Gap (MSS)	p-value
F24	Staff should obtain feedback from patients	2.13	3.65	-1.52	<0.001
F25	There should be adequate and appropriate service hours	3.42	4.02	-0.6	<0.001
F26	Staff should have patients' best interest at heart	2.39	4.44	-2.05	<0.001
F27	Staff should understand the specific needs of patients	2.37	4.59	-2.22	<0.001

The mean actual score reported by respondents is significantly and consistently lower than expected for all empathy items, with patients feeling that the service hours were almost adequate and that staff did not understand the specific needs of patients.

5.3.6 Dimension: Accessibility and Affordability (AA)

The level of ease of access to public hospitals is of dire importance as this plays a major role as to what hospital is utilised the most by patients.

Table 5.7: AA matrix

C ode	Question	MAS	MES	Gap (MSS)	p-value
G28	There should be adequate parking facilities for public and private transport	4.34	4.06	0.28	<0.001
G29	There should be ease of access to the hospital	4.29	3.94	0.35	<0.5638
G30	The charges for services rendered should be affordable	4.11	3.98	0.13	0.032

All three items in the AA matrix have a positive MSS, which are statistically significant in two cases.

5.4 Service Quality Ranking

The study participants were asked to indicate the service quality dimension they found most important: Question G31: Which of the above six areas (T), (RL), (RS), (AS), (E) and (AA) do you consider to be the most important?

Figure: 5.3 Participants ranking of service dimensions

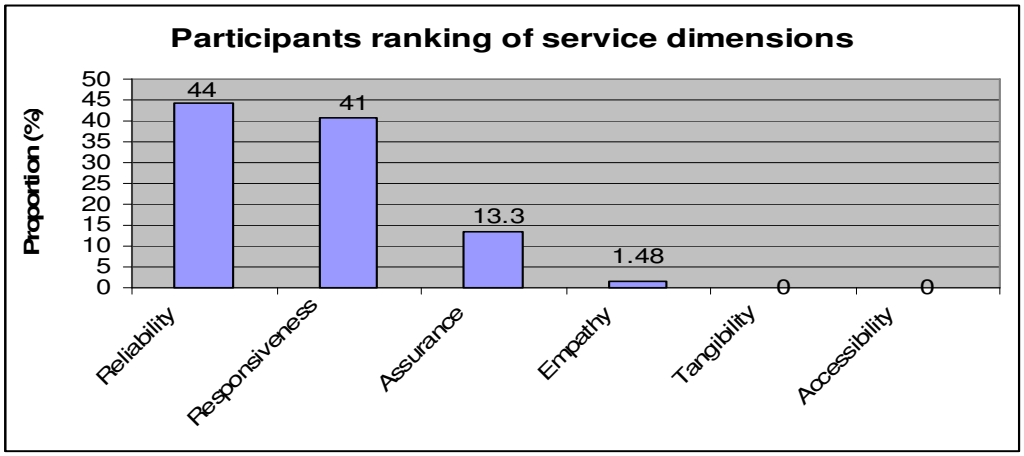


Figure 5.3 shows that reliability and responsiveness are the most important attributes to outpatients. Tangibility and accessibility/affordability were not considered important by any of the 406 participants.

5.4.1 Ranking of most important dimension by age

Table 5.8 shows significant differences in the ranking of service quality dimensions by age.

Table 5.8: Participant ranking of service dimensions by age

Age group	Dimensions of service quality				Total
	Reliability	Responsiveness	Assurance	Empathy	
Under 18	93	3.5	0	3.5	27
18 – 24	33	57	8	2	133
25 – 34	32	43	24	1	150
35 and over	65	26	9	1	94
Total	44	41	13	1.5	406

Pearson chi-squared test (9) = 81.4574; Pr = 0.000

The figures in the cell are calculated as row percentage of the total number of participants in each group – in the far right column.

While 93% of participants in the youngest age group reported reliability being their most important attribute, more participants in the middle age brackets reported responsiveness as their most important attribute. These differences are statistically significant as the chi-squared p-value is less than the alpha level of 0.05.

5.4.3 Ranking of most important dimension by gender

Significantly more females than males reported reliability as the most important attribute. On the other hand, significantly more males than females reported responsiveness as the most important attribute.

Table 5.9: Participant ranking of service dimensions by gender

Age group	Dimensions of service quality				Total
	Reliability	Responsiveness	Assurance	Empathy	
Female	58	23	18	1	182
Male	33	55	9	2	224
Total	44	41	13	1.5	406

Pearson chi-squared test (3) = 44.8486; Pr = 0.000

Overall reliability and responsiveness are the most important attributes to outpatients.

5.4.3 Ranking of most important dimension by race

Table 5.10 shows dimensions of service quality by race based on the total sample of 406 participants.

Table 5.10: Participant ranking of service dimensions by race

Race	Dimensions of service quality				Total
	Reliability	Responsiveness	Assurance	Empathy	
Black	45	42	12	2	364
Indian	70	20	10	0	
Coloured	35	30	35	0	
White	33	44	22	0	
Total	44	41	13	1.5	406

Pearson chi-squared test (9) = 13.9319; P-value = 0.125; Fisher's exact p-value = 0.153

Although more Indians reported reliability as the most important attributes, this difference was not statistically significant as the p-value was greater than 0.05.

5.5 Outpatient Expected and Actual Length of Stay

Patients were asked how long would be a reasonable wait for service in the outpatient department and then asked again how long they had to wait before receiving service.

5.5.1 Expected length of stay at the hospital

Table 5.11 shows the mean expected length of stay for all participants was 31 minutes, with a median of 30 minutes and a range of 15 to 70 minutes. The study shows that expected length of stay is not related to gender or race.

Table 5.11: Participant mean expected length of stay by age

Age group	Mean expected time of stay (min)
Under 18	16
18 – 24	30
25 – 34	34
35 and over	35
Mean	31

P-value = < 0.001

However, Table 5.12 also shows that expected length of stay demonstrating a gradient (dose-response) relationship with age. Younger people expected to spend less time than older people.

5.5.2 The actual length of stay

The mean for the reported actual length of stay was 132 minutes, with a median of 120 and a range of 60 to 240. This reflects a mean difference of over 100 means in the expected time of stay and the actual time of stay.

There are slight variations in the actual length of stay by hospital. Table 5.12 demonstrates this.

Table 5.12: Participant mean expected length of stay by age

Hospital			Baragwanath		
Variable	Obs.	Mean	Std. Dev.	Min	Max
Actual Time	49	128.8776	46.12331	60	120

Hospital			Edenvale		
Variable	Obs.	Mean	Std. Dev.	Min	Max
Actual Time	56	123.9286	49.23704	60	240

Hospital			Johannesburg		
Variable	Obs.	Mean	Std. Dev.	Min	Max
Actual Time	50	130.5	41.65272	60	120

Hospital			Pretoria Academic		
Variable	Obs.	Mean	Std. Dev.	Min	Max
Actual Time	50	136.4	43.74135	60	120

Hospital			Tembisa		
Variable	Obs.	Mean	Std. Dev.	Min	Max
Actual Time	50	121.7	28.91949	60	120

Hospital					
Variable	Obs.	Mean	Std. Dev.	Min	Max
Actual Time	50	144.4	37.47979	60	240

Hospital					
Variable	Obs.	Mean	Std. Dev.	Min	Max
Actual Time	50	130.6	48.79821	60	240

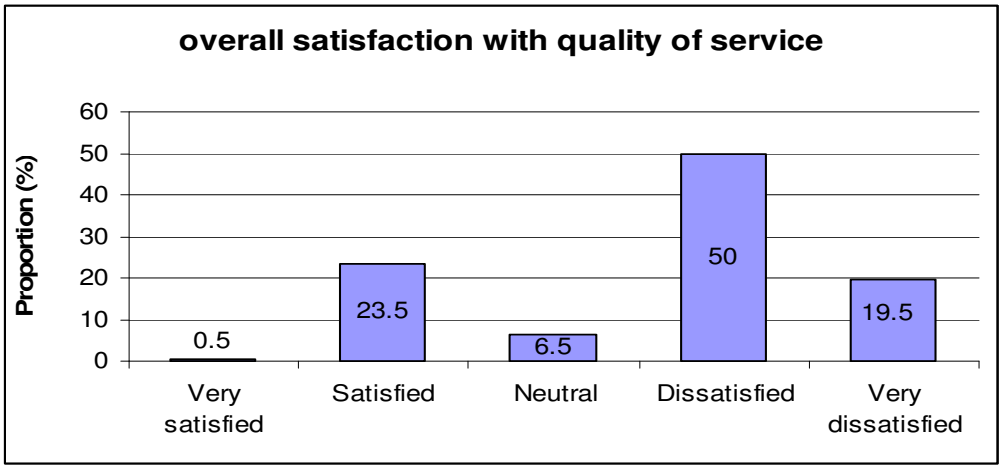
Hospital					
Variable	Obs.	Mean	Std. Dev.	Min	Max
Actual Time	50	145.6	38.44742	60	240

Of the 406 people interviewed, actual length of stay exceeded expected length of stay for 405 participants. This represents a major problem with the outpatient length of stay at Gauteng outpatient departments.

5.6 Outpatient Overall Satisfaction with Quality of Service

Question G32 on the questionnaire states: What is your overall satisfaction with the service rendered?: 23.5% of outpatients reported being satisfied with the overall quality of service while less than 1% reported being very satisfied; 19.5% of the outpatients reported being very dissatisfied.

Figure 5.3: Participants overall satisfaction with quality of service



5.6.1 Overall satisfaction with quality of service by gender

Men were significantly more likely to report satisfaction than women. While 42% of men reported being satisfied, only 8% of women reported same. These differences were statistically significant as evident from the p-value as shown in Table 5.13.

Table 5.13: Participant satisfaction with service quality by gender

Gender	Satisfaction with service quality					Total
	Very satisfied	Satisfied	Neutral	Dissatisfied	Very dissatisfied	
Female	0	8	6	54	32	182
Male	1	42	7	45	5	224
Total	0.5	24	6	50	19	406

Pearson chi-square test (4) = 93.3802; p-value < 0.001; Fisher's exact < 0.001

5.6.2 Overall satisfaction with quality of service by race

There were statistically significant differences in overall satisfaction with service quality by race.

Table 5.14: Participant satisfaction with service quality by race

Gender	Satisfaction with service quality					Total
	Very satisfied	Satisfied	Neutral	Dissatisfied	Very dissatisfied	
Black	0.6	24	6	51	19	364
Indian	0	60	0	30	10	10
Coloured	0	9	13	52	26	23
White	0	11	0	56	33	9
Total	0.5	24	6	50	19	406

Pearson chi-squared test (4) = 14.28; p-value = 0.283; Fisher's exact < 0.250

5.6.3 Overall satisfaction with quality of service by age

Although there are significant differences in reported satisfaction by age, the differences are not systematic with increasing age.

Table 5.15: Participant satisfaction with service quality by age

Age	Satisfaction with service quality					Total
	Very satisfied	Satisfied	Neutral	Dissatisfied	Very dissatisfied	
Under 18	0	86	3	10	0	29
18 – 24	0	14	5	71	10	133
25 – 34	0	15	4	52	29	150
34 and over	2	30	13	30	24	94
Total	0.5	24	6	50	19	406

Pearson chi-squared test (4) = 124.23; p-value <0.001; Fisher's exact <0.001

5.6.4 Overall satisfaction with quality of service by public hospital

Further analysis was carried out to assess if the reported levels of overall satisfaction with service quality varied with hospital, as Table 5.16 below shows.

Table 5.16: Satisfaction with service quality by hospital

	SATISFACTION					
HOSPITAL	Very Dissatisfied	Dissatisfied	Indifferent	Satisfied	Very Satisfied	Total
Baragwanath	12	29	0	9	0	50
%	24%	58%	0%	18%	0%	100%
Edenvale	9	25	4	18	0	56
%	16%	44.64%	7.14%	32.14%	0%	100%
Johannesburg	7	17	9	17	0	50
%	14%	34%	18%	34%	0%	100%
Pretoria Academic	10	14	7	19	0	50
%	20%	28%	14%	38%	0%	100%
Tembisa	7	38	0	5	0	50
%	14%	76%	0%	10%	0%	100%
Pretoria West	14	29	0	7	0	50
%	28%	58%	0%	14%	0%	100%
Ga-Rankuwa	12	16	6	16	0	50
%	24%	32%	12%	32%	0%	100%
Leratong	8	36	0	4	2	50
%	16%	72%	0%	8%	4%	100%
TOTAL	79	204	26	95	2	406
%	19.46%	50.25%	6.4%	23.4%	0.49%	100%

Pearson chi-squared test 2(28) = 95.1568; Pr = 0.000

Table 5.16 shows that reported satisfaction with service quality is highest for Pretoria Academic and Johannesburg hospitals. Dissatisfaction is highest for Pretoria West and Leratong hospitals.

5.7 Summary

This chapter presents summaries of the responses to the questionnaires distributed for the survey. The responses provide an indication of the outpatient expectations and perceptions of service quality offered to outpatients at Gauteng hospitals.

Chapter 6 will conclude the study by discussing how the findings link to the study objectives. Recommendations will be made for further research and possible proposals.

CHAPTER 6
Discussions, Conclusions and Recomendations

6.1 Introduction

In the preceding chapter, data obtained from the 406 outpatients at eight Gauteng public hospitals was summarised and presented graphically. The purpose of this chapter is to analyse and interpret the data in greater detail. The chapter also purports recommendations and proposes a direction for future research. In Chapter 3, four hypotheses were presented. The analysis will test these hypotheses using statistical techniques.

6.2 Discussion of Findings

The purpose of this study is to measure service quality expectations and perceptions of outpatients at Gauteng hospitals and to examine the effect of service quality and customer satisfaction, through testing the following hypotheses:

Hypothesis 1

Outpatient perceptions of service quality do not meet their expectations at Gauteng public hospitals.

Hypothesis 2

Outpatient satisfaction is unrelated to the service quality dimensions at Gauteng public hospitals.

Hypothesis 3

Outpatient perception of service quality is not gender dependant.

Hypothesis 4

Outpatient perception of service quality is not race dependant.

The results from the study confirmed that the six dimensions (tangible; reliability; responsiveness; assurance; empathy; and accessibility and affordability) are distinct constructs that affect the satisfaction of outpatients. The results indicate that Gauteng outpatients value reliability the most out of these six dimensions and that the level to which each dimension is satisfied has a direct bearing on the overall satisfaction of the patient.

6.2.1 Descriptive statistics

The good response rate of 82% can be attributed to the method of data collection (face-to-face personal interviews), which ensured a high return rate. The respondents were 55% male, a factor that may be due to men being more approachable than the mainly female contingent of fieldworkers. Black people account for 90% of our sample, Indian 2%, coloured 4% and white 2%. Representations vary according to the geographical location of hospitals. However, the racial representation in South Africa is as follows:

Black	79.2%
Coloured	9.0%
Indian/Asian	2.6%
White	9.2%

Hence, the black and Indian races are adequately represented, unlike the white and coloured races. This was one of the limitations of the study and is duly noted as such.

The age group that is mostly represented by our sample is between the ages of 18 and 34. This age group's high representation can be attributed to the fact that it is the same age group that has been affected the most by HIV/AIDS.

6.2.2 Comparison of expected and perceived quality of service

One of the objectives of the study was to determine expectations of service quality and to compare them to the perceived quality of service. This was done according to the six dimensions of quality.

Hypothesis 1

Outpatient perceptions of service quality do not meet their expectations at Gauteng public hospitals.

The tests show that outpatient perception of service quality at Gauteng public hospitals do not meet their expectations. This view was shown to be consistent throughout all the dimensions:

i) Dimension: Tangibility (T)

Of the 406 respondents none marked tangibility as the most important attribute. However, the mean expectations score (MES) ranged from 4.30 to 4.78 out of a maximum of 5 for the questions asked. This shows that outpatient tangibility expectations were high, even though this was not their most important service quality dimension. Nevertheless, the MSS gaps for the tangibility dimension were all negative. This means that Gauteng outpatients' tangibility dimension expectations are not being met. This has an effect on the patients overall satisfaction or dissatisfaction with the perceived service quality provided.

ii) Dimension: Reliability (RL)

Question C15: There should be consistency of charges; shows a positive MSS that is statistically significant. This may be explained by the fact that the very nature of socialised medicine, as mentioned in Chapter 2, is that governments do not charge people who cannot afford healthcare. This is consistent with socialised medicine globally. More people in the United Kingdom make use of the National Health Service (NHS) as it provides services measurable to the private healthcare sector. The South African government will benefit greatly through the adoption of successful strategies used by the UK government in order to make the NHS what it is today.

Questions C11 to C14: The mean actual scores are consistently lower than expected, with the lowest one being Question C11: Services should be provided on appointed days and time. Chronic outpatients are often rebooked on a future date and sent home if the demand is too high on a particular day. This is consistent with the above observation.

iii) Dimension: Responsiveness (RS)

Responsiveness refers to the level of receptiveness, openness, sensitivity and awareness of the staff in the outpatient departments. For the responsiveness

matrix, all actual scores are significantly lower than expected and the differences are the highest of all the six dimensions.

Figure 5.3 showed that reliability (44%) and responsiveness (41%) are viewed as the most important attributes by outpatients. It then becomes peculiar when we realise that the responsiveness matrix attained the most negative of the MSS gap scores. This then translates to the fact that responsiveness is the second highest attribute seen as most important by outpatients and yet it is the attribute they most perceive as one that is not being adequately provided.

iv) Dimension: Assurance (AS)

Assurance is defined as the level of guarantee that outpatients will receive a particular level of service. According to the results, the patients expect and perceive that the hospital staff possesses a wide spectrum of knowledge.

MSS are significantly negative for Questions E20, E22 and E23, with Question E20 having the most negative MSS score for the attribute of -3.07. This shows that the perception of the outpatients is that the staff is highly trained and has a wide range of knowledge, but at the same time they are neither friendly nor courteous.

v) Dimension: Empathy (E)

The mean actual score reported by respondents are significantly and consistently lower than expected for all empathy items, with patients feeling that the service hours are almost adequate and that staff does not understand the specific needs of patients.

Patients thus feel that the staff is not as empathetic as they would like, meaning that they are viewed as non-caring for the patients well-being.

vi) Dimension: Accessibility and Affordability (AA)

Outpatient perception of hospital staff is that they possess a wide spectrum of knowledge. This mean difference is, however, not statistically significant.

The MSS for the rest of the questions under accessibility and affordability are significantly negative, also showing that the outpatient expectations are not being met by the service quality they perceived to be receiving.

6.2.3 Service quality ranking

Reliability was ranked highest in terms of importance for satisfaction with service quality, followed by responsiveness, empathy and assurance respectively. This result is consistent with Parasuraman *et al.* (1988) in that reliability is found to be the most important factor of service quality. Tangibility and accessibility/affordability are not considered most important by any of the 406 participants. This is consistent with Reidenbach and Sandifer-Smallwood's (1990) results that stated that physical environment is not significant.

Hypothesis 2

Outpatient satisfaction is unrelated to the service quality dimensions at Gauteng public hospitals.

The study showed that there is a relationship between the quality dimensions and outpatient satisfaction. It should however be noted that due to methodological limitation, this result is consistent with the theory of causality. This relationship does not demonstrate causality, since alternative explanations cannot be ruled out. Some may thus argue that the assumed relationship between service quality leading to overall satisfaction might infact be in the opposite direction.

Reidenbach and Sandifer-Smallwood (1990) explored the question of whether outpatients and inpatients of a hospital differed in how they prioritised various service quality dimensions when assessing their satisfaction. They found that for outpatients, patient confidence (for example, sense of well-being,

confidence in the skill of persons attending the patient, the thoroughness of communication) is the only quality dimension influencing satisfaction, while for inpatients, patient confidence and physical appearance (i.e. tangibles) are significant factors underlying their satisfaction. The affordability factor is not considered most important for service quality because government hospitals offer a free service to those who cannot afford private healthcare.

6.2.4 Ranking of most important dimension by age

Table 5.8 showed significant differences in the ranking of service quality dimensions by age; 93% of participants in the age group 18 and under reported reliability being their most important attribute.

A shift is observed as we move to the middle age brackets (25 to 34 and 35 and >), which reported responsiveness as their most important attribute. These differences are reported as statistically significant, as the chi-squared p-value is less than the alpha level of 0.05. This means there is a significant difference in view according to the age of the outpatient. These findings are in line with Fletcher *et al.* (1983), who found that older patients valued continuity (for example, see the same doctor on every visit) as the most important, while the younger group wanted healthcare that was technically proficient.

6.2.5 Ranking of most important service quality dimension by gender

When considering:

Hypothesis 3

Outpatient perception of service quality is not gender dependant.

Significantly more females than males reported reliability the most important attribute. Females were also more likely to report assurance when compared to their male counterparts.

Overall though, it was found that reliability and responsiveness were the most important dimensions for both males and females.

6.2.6 Ranking of most important dimension by race

Hypothesis 4

Outpatient perception of service quality is not race dependant

More Indian people reported reliability as the most important attribute, this difference is not statistically significant as the p-value is greater than 0.05. More information is required here to make useful conclusions; however, Murray-Garcia *et al.* (2000) reported racial differences with respect to the importance assigned to various medical service dimensions among people who lived in California. According to their findings, Black, Latino, and Asian people put more weight on the physician's concern, courtesy and respect, and illness prevention than did Caucasians.

6.2.7 Outpatient expected length of stay vs. perceived length of stay

The mean expected length of stay for all participants was 31 minutes, with a median of 30 minutes and a range of 15 to 70 minutes. The study showed that expected length of stay is not related to gender or race. However, the study showed expected length of stay demonstrating a gradient (dose-response) relationship with age. In short, younger people expected to spend lesser time than older people. The mean for the reported actual length of stay was 132 minutes, with a median of 120 and a range of 60 to 240. This reflects a mean difference of over 100 means in the expected time of stay and the actual time of stay. Outpatients are staying longer than they expect waiting for service at Gauteng hospitals.

6.2.8 Outpatient overall satisfaction with quality of service

When asked about their overall satisfaction with the service quality, 23.5% of outpatients reported being satisfied with the overall quality of service while less than 1% reported being very satisfied; 19.5% of the outpatients reported being very dissatisfied and 50% were dissatisfied.

These results show that the bulk of outpatients (69.5%) are not satisfied with the service they are receiving. This is supported by the SERVQUAL gap analysis that showed negative MSS in most aspects.

6.2.9 Overall satisfaction with quality of service by age

Although there are significant differences in reported satisfaction by age, the differences are not systematic with increasing age. Hence there is no clear link between overall satisfaction and age. This is in line with past studies that have also explored how levels of satisfaction varied in relation to basic demographic variables such as age (Batchelor *et al.*, 1994). This study found that older patients tended to be more satisfied with medical care services than their younger counterparts.

6.2.10 Overall satisfaction with quality of service by gender

In this study, men were significantly more likely to report satisfaction than women. While 42% of men reported being satisfied, only 8% of women reported being satisfied. These differences are statistically significant as evident from the p-value. These results are consistent with Vogt *et al.* 1999 who observed lower overall satisfaction levels among female patients. Vogt *et al.* 1999 showed that although there are no consistent differences in mean satisfaction ratings by gender, the characteristics associated with patient satisfaction differed for men and women. Women's satisfaction with visits was more dependent on informational content, continuity of care, and multidisciplinary management, while men's satisfaction was more dependent on the personal interaction with healthcare providers.

6.2.11 Overall satisfaction with quality of service by race

More Indians reported reliability as the most important attribute. This difference is not statistically significant as the p-value is greater than 0.05.

6.2.12 Overall satisfaction with quality of service by public hospital

An analysis was carried out to assess if the reported levels of overall satisfaction with service quality varied by hospital. Table 5.12 showed that the reported satisfaction with service quality is highest for Pretoria Academic and

Johannesburg hospitals. Dissatisfaction on the other hand is highest for Pretoria West and Leratong hospitals. Overall the majority of the patients were dissatisfied with the service they received and would not recommend the hospital to family or friends. This shows that given a chance they would not use the facilities themselves.

In a country where the majority of the population makes use of these institutions it becomes dire, that efforts are strengthened to improve service quality and hence patient satisfaction.

6.3 Limitations of Study

Clearly, there are limitations to this study, which will limit the conclusions that can be drawn. One limitation is the difficulty in approaching the respondents for private interviews. This is due to the crowded nature of outpatient departments. This could have led to the potential collection of inaccurate data. Data collection errors could also exist due to the fact that the fieldworkers had to translate questions for the candidates in many cases.

Further research should be considered to gather more information regarding the service quality and patient satisfaction dimensions on a wider view in context of the South African public healthcare system. The is a need to increase the number of hospitals involved in the research study, the number of respondents, and the research should represent the whole of South Africa.

6.4 Recommendations

The study shows that patient expectations are certainly not being met by the service quality they perceive to be receiving. Gronroos (2000), states that the level of service will vary between what is perceived by the receiver and what is provided by the healthcare professional. The relationship between service quality and customer satisfaction is thus subjective and prior research suggests that service quality has a positive relationship with customer satisfaction (Parasumraman *et al.* 1988). It is for this very reason that it is highly recommended that the Department of Health invests in trying to find out more about their clients and realigning themselves in such a way so as to

allow them to deliver a service that exceeds the expectations of their clients, hence leading to client/patient satisfaction. Identifying the aspects of the outpatient experience, which patients have flagged as having the highest levels of importance, is critical. These are criteria patients would use when assessing hospital outpatient service quality. Identifying these areas, as well as those that have the highest performance gap scores is only the first step towards overall patients' satisfaction. The Department of Health must then determine which of these areas appear to have the biggest influence on patients' satisfaction. An improvement in the patients' perceptions of these elements can result from management attention to a few details, rather than any investment in additional resources, which might be a waste of such resources. For instance showing courtesy and a sincere interest towards patients does not cost anything, but can reap great benefits, towards patient satisfaction.

Patient dissatisfaction negatively impacts the patient/healthcare provider relationship and leads to decreased treatment compliance and potentially negative perceptions about the healthcare institution (Stawicki *et al.* 2007). The Department of Health should seek to find ways and means of improving the quality of their service according to the importance of the service quality dimensions, reliability and responsiveness topping the dimensions' list. The department should seek to find out why the perceived scores were lower than the expected scores, and after that what they can do to change this perception.

The Department of Health must introduce a 360-degree customer service performance management system so as to focus on customer satisfaction. The introduction of the mystery client evaluation system will be of great assistance in investigating what the outpatients are going through. An investigation into the long waiting times has to be done to establish if it is due to a human resource shortage or if it is efficiency related. The Department of Health should adopt some of the quality management strategies used by the private hospitals and adapt them to their own setting.

6.5 Conclusions

Throughout this study the researcher has endeavoured to establish if what outpatients expect is what they perceive to be receiving and if such a view is race, age or gender related. Ultimately, the study shows the relationship between patient perception of the service quality and patient satisfaction with the service. Although public healthcare is free to the public, standards should not be lowered for that same reason.

The study shows the direct link between the dimensions of service quality and satisfaction. Gauteng outpatients are not satisfied with the service quality they are currently receiving and this is a matter that needs to be attended to urgently, as it has a direct bearing on whether people come for treatment or they stay away and encourage the spread of diseases such as TB and XDR TB.

Understanding patients' perceptions on the quality of care of government facilities may allow policy-makers to improve this quality of care, and hence increase the service utilisation. Finally, a related advantage of pursuing a quality-based strategy is that of inimitability. Hospitals with a history of successfully pursuing service quality develop a reputation. Unlike other corporate assets, reputation must be developed and earned over time, becoming virtually impossible to copy (Rapert and Wren, 1998).

Public hospitals are funded through the tax system and hence they are accountable for the service they provide to the public. They make use of taxpayer's money; some of these taxpayers become their patients in the public hospital setting and hence require value for their money.

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ANNEXURE 1

UNISA

GRADUATE SCHOOL OF BUSINESS LEADERSHIP (SBL)

10 September 2008

Dear Sir / Madam

I am currently busy with my Masters in Business Leadership at the SBL. As part of my final year I am required to carry out a research, given the above I have identified that in the healthcare industry, hospitals provide the same types of services, but they do not provide the same quality of service. This is counteracted by the fact that customers today are more aware of the alternatives on offer and rising standards of service have increased their expectations.

I would therefore appreciate it, if you would be willing to participate by completing the attached questionnaires. Each questionnaire will take 10min to complete; hence both will take 20 minutes of your time.

It will be paramount though that questionnaire one be completed before you are served in the outpatient department and questionnaire two be completed thereafter.

Please note that anonymity will be maintained at all times.

Thank you for your assistance.

Kindest regards

Dickson Chida
(W) 011 314 3135
(C) 082 444 1276

ANNEXURE 2

Expectations Questionnaire — Part 1

Please indicate your age by ticking one of the boxes EA1

Under 18 ☐

18-24 ☐

25-34 ☐

35 and over ☐

Please indicate your gender EA2

Female ☐

Male ☐

Please indicate your race EA3

Black ☐

Indian ☐

Coloured ☐

White ☐

Please indicate what hospital you are attending EA4

Tembisa Hospital ☐

Johannesburg General Hospital ☐

Edenvale Hospital ☐

Pretoria Academic Hospital ☐

Chris Hani Baragwanath Hospital ☐

Leratong Hospital ☐

Ga-Rankua Hospital ☐

Pretoria West Hospital ☐

Please indicate the level of importance of each of the following statements in terms of what you would expect at a Gauteng public hospital outpatient department.

Tangibility (T)

I expect…

	Least important				Most important	
Up to date and well maintained medical facilities and equipment	1	2	3	4	5	EB5
Clean, comfortable environment with good directional signs	1	2	3	4	5	EB6
That staff should be professional and neat in appearance	1	2	3	4	5	EB7
Informative brochures about services	1	2	3	4	5	EB8
Privacy during treatment	1	2	3	4	5	EB9
Toilets that are functional & pleasant	1	2	3	4	5	EB10

Reliability (R)

I expect…

	Least important				Most important	
Services should be provided on appointed days	1	2	3	4	5	EC11
Services should be carried out right the first time	1	2	3	4	5	EC12
Staff should be professional and competent	1	2	3	4	5	EC13
Error free and fast retrieval of documents	1	2	3	4	5	EC14
Consistency of charges	1	2	3	4	5	EC15

Responsiveness (RS)

I expect…

	Least important				Most important	
Patients should be given prompt services	1	2	3	4	5	ED16
Responsive staff	1	2	3	4	5	ED17
Attitude of staff should instil confidence in patients	1	2	3	4	5	ED18
Waiting time of not more than one hour	1	2	3	4	5	ED19

Desired waiting time …… Minutes

Assurance (A)

I expect…

	Least important				Most important	
Friendly and courteous staff	1	2	3	4	5	EF20
Staff should possess a wide spectrum of knowledge	1	2	3	4	5	EF21
Patients should be treated with dignity and respect	1	2	3	4	5	EF22
Explain thoroughly medical condition to patients	1	2	3	4	5	EF23

Empathy (E)

I expect…

	Least important				Most important	
Staff obtain feedback from patients	1	2	3	4	5	EG24
Adequate and appropriate service hours	1	2	3	4	5	EG25
Staff should have patients best interest at heart	1	2	3	4	5	EG26
Staff should understand the specific needs of patients	1	2	3	4	5	EG27

Accessibility & Affordability (AA)

I expect…

	Least important				Most important	
There should be adequate parking facilities or taxi services	1	2	3	4	5	EG28
The hospital location should be accessible	1	2	3	4	5	EG29
Affordable charges for services rendered	1	2	3	4	5	EG30

Which of the above areas do you find of most important among your expectations?

Most Important			**T**	**RL**	**RS**	**AS**	**E**	**AA**	**EG31**

Part 2

To ensure your confidentiality, please do not write your name on the questionnaire.

Perceptions Questionnaire

Now please think how satisfied you were with each of the following aspects of the outpatient department service. For each statement, please circle one number (1 to 5) to indicate your degree of satisfaction or dissatisfaction.

TANGIBILITY

	Very Dissatisfied	Dissatisfied	Indifferent (neither satisfied or dissatisfied)	Satisfied	Very satisfied	Not Applicable		

I found…

Up to date and well maintained medical facilities and equipment

1 2 3 4 5 N B5

Clean and comfortable environment with good directional signs

1 2 3 4 5 N B6

Staff is professional and neat in appearance

1 2 3 4 5 N B7

Informative brochures about services

1 2 3 4 5 N B8

	Very Dissatisfied	Dissatisfied	Indifferent (neither satisfied or dissatisfied)	Satisfied	Very satisfied	Not Applicable		

I found…

Privacy during treatment

1 2 3 4 5 N B9

Toilets that were functional & pleasant

1 2 3 4 5 N B10

Now please think how satisfied you were with each of the following aspects of the outpatient department service. For each statement, please circle one number (1to 5) to indicate your degree of satisfaction or dissatisfaction.

RELIABILITY

	Very Dissatisfied	Dissatisfied	Indifferent (neither satisfied or dissatisfied)	Satisfied	Very satisfied	Not Applicable		

I found that …

Services are provided at appointed time

1 2 3 4 5 N C11

Services are carried out right the first time

1 2 3 4 5 N C12

Staff are professional and competent

1 2 3 4 5 N C13

	Very Dissatisfied	Dissatisfied	Indifferent (neither satisfied or dissatisfied)	Satisfied	Very satisfied	Not Applicable		

I found …

Error free and fast retrieval of documents

1 2 3 4 5 N C14

Charges are consistent

1 2 3 4 5 N C15

Now please think how satisfied you were with each of the following aspects of the outpatient department service. For each statement, please circle one number (1 to 5) to indicate your degree of satisfaction or dissatisfaction.

RESPONSIVENESS

	Very Dissatisfied	Dissatisfied	Indifferent (neither satisfied or dissatisfied)	Satisfied	Very satisfied	Not Applicable		

I found …

Patients are given prompt services

1 2 3 4 5 N D16

Staff is responsive

1 2 3 4 5 N D17

Attitude of staff instils confidence in patients

1 2 3 4 5 N D18

Now please think how satisfied you were with each of the following aspects of the outpatient department service. For each statement, please circle one number (1 to 5) to indicate your degree of satisfaction or dissatisfaction.

ASSURANCE

	Very Dissatisfied	Dissatisfied	Indifferent (neither satisfied or dissatisfied)	Satisfied	Very satisfied	Not Applicable		
I found …								
Waiting time is not more than one hour								
	1	2	3	4	5	N		D19
Staff is friendly and courteous								
	1	2	3	4	5	N		E20
Staff possess a wide spectrum of knowledge								
	1	2	3	4	5	N		E21
Patients are treated with dignity and respect								
	1	2	3	4	5	N		E22
Staff explain thoroughly medical condition to patients								
	1	2	3	4	5	N		E23

Now please think how satisfied you were with each of the following aspects of the outpatient department service. For each statement, please circle one number (1 to 5) to indicate your degree of satisfaction or dissatisfaction.

EMPATHY

	Very Dissatisfied	Dissatisfied	Indifferent (neither satisfied or dissatisfied)	Satisfied	Very satisfied	Not Applicable		
I found …								
Staff obtains feedback from patients	1	2	3	4	5	N		F24
Service hours are adequate and appropriate	1	2	3	4	5	N		F25
Staff has patients best interest at heart	1	2	3	4	5	N		F26
Staff understands the specific needs of patients	1	2	3	4	5	N		F27

Now please think how satisfied you were with each of the following aspects of the outpatient department service. For each statement, please circle one number (1 to 5) to indicate your degree of satisfaction or dissatisfaction.

ACCESSABILITY AND AFFORDABILITY

	Very Dissatisfied	Dissatisfied	Indifferent (neither satisfied or dissatisfied)	Satisfied	Very satisfied	Not Applicable		
I found …								
There are adequate parking facilities								
	1	2	3	4	5	N		G28
The location is accessible								
	1	2	3	4	5	N		G29
Charges for services rendered are affordable								
	1	2	3	4	5	N		G30
Overall satisfaction								
	1	2	3	4	5	N		G30

END

Thank you for your participation.