UNIVERSITY OF KWAZULU-NATAL

THE RURAL HEALTH CARE PROBLEM IN THE SISONKE DISTRICT
ST APOLINARIS HOSPITAL

By

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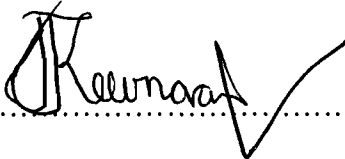Co-Supervisor: Prof. W. Geach

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DECLARATION

This research has not been previously accepted for any degree and is not being currently considered for any other degree at any other university.

I declare that this Dissertation contains my own work except where specifically acknowledged

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Signed...

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Abstract

With the advent of democracy in South Africa, there has been a growing awareness of the poor levels of health care that have been provided to rural areas in previous years. While members of the private sector can afford medical treatment equalling that provided in first world countries, the poor, who rely on the public sector, must rely on the services that are provided by their district hospital system.

The remote St Apollinaris Hospital provides health care for approximately 150 000 of the 308 000 people who inhabit the Sisonke District. This hospital is unable to attract and maintain adequate human resource capital due to its remote location, it is frequently confronted with logistical problems. While St Apollinaris Hospital does function within the budgetary constraints of the Department of Health, there seems no effective mechanism by which the problems of this institute can be identified and dealt with. As St Apollinaris Hospital services almost half the district population, any improvement in the hospital's functioning and service delivery will have a direct impact on the health status of this rural area.

This study aimed at identifying the shortfalls that were present at the St Apollinaris Hospital and focused on the management and administrative components, as well as human resources and equipment resources, which may contribute to the suboptimal health care of patients.

This study was a qualitative observational cross sectional study with some quantitative aspects. As all workers and managers that were present were interviewed, there was no need for a sampling methodology. The sample size consisted of 128 general employees and eight top managers. A response rate of 85% was achieved which allowed the researcher to draw conclusions about all workers at the St Apollinaris Hospital. An inventory of the hospital's equipment was conducted using the Department of Health's essential equipment list. The out patients utilizing the hospital's services were analyzed to determine the effectiveness of the current referral pattern and the financial records of the hospital were analyzed to determine the effectiveness of the budgeting process.

Understaffing was one of the most serious problems that the hospital had to contend with as 81% of employees identified this problem. 51% of employees stated that understaffing presented itself on a daily basis. The next problem faced was the low levels of equipment with there being a range of 35 to 69% of essential equipment present. There was no equipment pool. 90% of workers stated that the lack of equipment resulted in them becoming frustrated and 85% of workers stated that they believed that the low levels of equipment resulted in compromised patient care.

The recommendations that were made include St Apollinaris Hospital instituting a long term and short term recruitment strategy to help with the understaffing that may be present. A full equipment plan needs to be instituted at St Apollinaris Hospital. Attention should be paid to bringing the essential equipment up to the prescribed levels as soon as possible. An equipment pool should be established and maintained.

More research is needed with regard to the outpatient and financial components of this study.

TABLE OF CONTENTS

CHAPTER ONE

CHAPTER TWO

CHAPTER THREE

CHAPTER 4

CHAPTER 5

REFERENCES...**138**

APPENDAGES

LIST OF FIGURES

LIST OF TABLES

ABBREVIATIONS

DOH   Department of Health

HIV/AIDS   Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome

KZN   KwaZulu-Natal

PMTCT   Prevention of Mother to Child Transmission

RUDASA   Rural doctors Association of South Africa

SAH   St Apollinaris Hospital

STI   Sexually Transmitted Infections

USA   United States of America

CHAPTER ONE

THE RURAL HEALTH CARE PROBLEM

1.1 INTRODUCTION

Based on the researcher's experiences at a rural health care centre, identifying possible health care problems and implementing sustainable solutions, poses an ongoing challenge to managers of rural health care institutes. Acknowledging and embracing the complexity and intensity of such, coupled with other contextual factors in the day to day functioning of a rural hospital, can be so demanding and overwhelming to the point where the task can become extremely problematical.

Despite there being numerous indicators such as the Primary Health Clinic Utilization rates, HIV/AIDS Programme rates, Prevention of Mother to Child Transmission (PMTCT) rates, Sexually Transmitted Infection (STI) Programme rates, Patient care rates, Human Resource and Budget Expenditure rates (Day, *et al.,* 2005), to help hospital management assess the effectiveness of various programmes, there seems to be no effective way of addressing the specific management problems that small rural hospitals are faced with everyday and this issue needs to be looked into.

Katzellenborgen (1997) states that the components of the health care delivery system that can be evaluated include the staffing component, equipment and budget expenditure. Due to the complex nature of a health system, a systems approach can allow for the breakdown of a problem into 3 components (Joubert, *et al.,* 2007):

- Structure made up of inputs like resources, users and organisations
- Processes made up of services that may be provided and used
- Outcomes which are the changes in health that have occurred.

1

However, the challenge lies in identifying health care delivery problems, at an institutional level and the specific solutions that are needed to improve the health care in that rural area. The health care status of the catchment population of the St Apollinaris Hospital is in dire straits as the HIV/AIDS pandemic, accounting for 41.5% of the top ten leading causes of death in South Africa, coupled with the poverty level of 71.5% (Internet 1) has resulted in a population that is unable to seek adequate medical attention.

This research looks at alternatives outside those suggested by government as a means to improving health care, without compromising controls and is aimed at identifying shortfalls in the rural health system and then using business concepts to propose simple sustainable solutions, thus improving the health system with minimal intervention.

1.2 BACKGROUND AND CONTEXT

This research project will be conducted in the rural district of Sisonke, located in the south west region of KwaZulu-Natal as illustrated by Figure 1.1. The Sisonke District has a population of approximately 308 999 people (Internet 1). Of this population, there is an estimated 219,330 people, i.e. 75% living in poverty (Internet 1). This region is predominately agricultural with it being serviced by four public sector hospitals, namely: St Apollinaris, Christ the King, Rietvlei and Taylor Bequest Hospitals. There is a private hospital in Underberg, which is a specialized private psychiatric hospital.

This research will focus on the St Apollinaris Hospital. This hospital was established in the late 1800's by Czechoslovakian priests as a missionary hospital. During the 1990's, it became completely state owned.

St Apollinaris is the referral hospital for four primary health clinics, a Gateway Clinic and a mobile clinic, which operate in the surrounding rural areas. Of the total district population, the St Apollinaris Hospital services 150 000 people (Internet 2). This accounts for 49% of the total district population. The hospital has approximately 130

2

Hospitals in Sisonke Health District

Lesotho

HOWICK

PIETERMARITZBURG

Gray's Provincial

Town Hill Provincial

Midlands Medical Centre Pr

St. Anne's Private

Fort Napier Provincial

Edendale Provincial

Doris Goodwin SANTA State Aided

Richmond Chest Provincial

RICHMOND

UNDERBERG
Riverview Country Private

St. Apollinaris Provincial — CREIGHTON

DIDPO — Christ the King Provincial

Umzimkulu Provincial — UMZIMKHULU
St. Margarets Provincial

GJ Crooke

EG & Usher Memorial Provincial

Rietvlei Provincial

KOKSTAD
Kokstad Private

HARDING

St. Andrew's Provincial

Eastern Cape

PORT EDWARD

Map Legend

Hospitals
- ✚ Private
- ✚ Provincial
- ✚ State Aided

Roads
— District
— Provincial
— National

KZN Wildlife Serv

Health District
- ☐ Amajuba
- ☐ eThekwini
- ☐ iLembe
- ☐ Sisonke
- ☐ Ugu
- ☐ UMgungundlovu
- ☐ Umkhanyakude
- ☐ Umzinyathi
- ☐ Uthukela
- ☐ Uthungulu
- ☐ Zululand

0   5   10
Kilometres

HEALTH
Compiled and Produced by
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FIGURE 1.1 THE SISONKE HEALTH CARE DISTRICT

beds, but ward overpopulation is a frequent occurrence, resulting in patients having to use mattresses of various types which are placed on the floor as beds.

Based on the researcher's experience of working at the St Apollinaris Hospital, very few developmental projects are being initiated to improve the infrastructure, or to upgrade the pre-existing facilities possibly due to the lack of sustainability that dampens most of the developmental attempts.

During the period January 2007 to June 2007, there has been a drive to improve staffing with specific reference to doctors. The number of doctors has risen from 6 (in September 2006) to 12 (in April 2007), and was 14 (in July 2007). However, considering the estimated population, the doctor to patient ratio remains as 0.08 per 1000 people. As there is no documented recommended doctor to patient ratio in South Africa, evaluating the adequacy of the present staffing contingent is near impossible. However, this doctor to patient ratio is well below the European Union ratio of 3. 2 doctors per 1000 people (Internet 3).

St Apollinaris Hospital operates on the strength of community service and foreign doctors who are transient in the greater scheme of things at the hospital, as their contracts range from one to three years only. At the time of writing this research (July 2007), the position of medical manager had been filled for a period of two weeks. Prior to this, the medical manager position, which is instrumental in coordinating medical service delivery had been unoccupied for the 8 out of the last 12 months (Personal communiqué 1).

Road access to the hospital is by two gravel roads. Of these roads, one is approximately 20kms, and the other is approximately 8kms in length from the tarred roads that service the local community. The nearest freeway is approximately 120kms away. Based on my perception while working at St Apollinaris Hospital, government intervention is slow and very limited in this health district. This has resulted in the need for lateral thinking to innovate and improve the current methods of service delivery.

The field work for this research spanned the period of July and August 2007.

1.3 THE PROBLEM STATEMENT

Based on the observations of a researcher who has worked at the hospital, it was perceived that the St Apollinaris Hospital does not function effectively and efficiently. This research was conducted in an attempt to identify potential problem areas, within the hospital environment which can be improved through business strategies.

The identification of the problems within a rural health care facility promised to be a complex task. As such this identification process was broken down into smaller, more manageable constituents, to allow for adequate identification of the shortfalls of the current health care system. For purposes of this study, the problem was deconstructed into categories relating to human resources, equipment, patient workloads, managerial processes and financial planning.

1.4 THE OBJECTIVES OF THIS STUDY

This study aimed at identifying the shortfalls that were present at the St Apollinaris Hospital, situated within the Sisonke health care district. The study was to focus on the management and administrative components, as well as human resources and equipment resources, which may contribute to suboptimal health care of patients, in an already disadvantaged sector of the public population. Within each component, the following were considered:

> 1.4.1 OBJECTIVE ONE - Human Resources: This study considered possible problems amongst staff with regard to increased work loads and understaffing. The problem of poor management skills was also explored from an employee's viewpoint.

1.4.2 OBJECTIVE TWO - Equipment: This study attempted assessing the levels of essential equipment, and the functionality thereof.

1.4.3 OBJECTIVE THREE – Out Patients: This study attempted at assessing the necessity of patients visiting hospitals instead of primary health care centres.

1.4.4. OBJECTIVE FOUR - Managerial: The study assessed a manager's understanding of the grievances of their sub-ordinates and their attempts to alleviate such grievances.

1.4.5. OBJECTIVE FIVE - Financial: This study attempted assessing the budget planning process and any shortcomings thereof.

1.5 MOTIVATION FOR THE STUDY AND IMPORTANCE THEREOF

This study planned to identify the problems that may exist at the rural health care institute of St Apollinaris Hospital. Once the problems have been identified, strategies can be devised and implemented to improve the functioning of this rural hospital. More effective functioning of this hospital will in turn improve the standard of health services provided to the 150, 000 underprivileged people who utilize this service.

While working at St Apollinaris Hospital, it was perceived by the researcher that the institution was poorly run. There was a lack of understanding and communication between management and workers which was not as good or as effective as the levels of communication in other hospitals. It was perceived that there was no, if not little, attention being paid to the problems that the employees face everyday, at the ground level.

It was also observed that there was a shortage of equipment which added to the frustration of employees. However, there was no way of quantifying this shortage or its effect on workers. While there was an essential equipment list published by the Department of Health in 2006, the equipment officer was not aware of this. Furthermore, there was no way of illustrating to top management that equipment shortages were a significant problem. While a possible rebuttal would be that staff would have complained about inadequate equipment levels, the absence of a medical manager coupled with the lack of communication, has made this process ineffective.

It was also perceived that there was an inadequate budgeting process for the institution, with no funds being allocated to address the equipment shortages and essential medical items, resulting in there being a suboptimal delivery of services.

While the above are merely perceptions, based on observation, the researcher believes that such problems warrant investigation to ensure problems are highlighted and processes for addressing them are duly instituted.

1.6 LIMITATIONS OF THE STUDY

The limitations of the study that were identified can be categorized according to the following headings:

1. Literature Review: There are limited amounts of data and articles published around the rural district health care system, let alone the rural district of Sisonke. The Department of Health relies on a passive surveillance system to provide the government with mortality and morbidity trends (Day, *et al.*, 2005). Most of the information about rural health originates from the Department of Health and specific projects like the Health Systems Trust and the Rural Doctors Association of South Africa. This limited amount of data is

considered a limitation to this study as there is very little information to which one can compare this study methodology and its results.

2. Staff Questionnaire: With the introduction of any sampling methodology, a degree of bias exists, specifically selection bias. Selection bias is introduced when the sampled population does not represent the population from which they have been selected (Katzenellenborgen, et al,. 1997). This may be the result of an incomplete sampling frame. An attempt will be made to limit this bias by attempting to interview all workers present during the time period assigned using the duty allocation roster as a sampling frame. Another limitation with the administration of a questionnaire is the bias that may be introduced through an untrained interviewer. The risk of this occurring will be reduced by having the interviews conducted by a trained individual who will be cautious to ensure that this does not occur.

3. Management Questionnaire: Again, the limitation would be bias introduced by the interviewer. An attempt to reduce this bias will require that the interviews are conducted by a trained individual who is familiar with both the medical and managerial components of the health sector.

4. Essential Equipment List: In November 2006, the Department of Health published a list of what it perceived to be the basic equipment list for district and regional hospitals. The limitation of this list is that it is not specific to St Apollinaris and the basket of services this institute may provide. This is a limitation which this research will be unable to compensate for.

5. As this study is cross sectional in its design, the past situation or any future shortfalls that may occur at the St Apollinaris Hospital will not be considered. This is a limitation as there has been an increase of greater than 100% within the number of doctors and while this may still be regarded as below the full complement, it is not reflective of the true problems of understaffing that

pervades the rest of the hospital. At the time of writing there was still a deficit of 20% in terms of doctor posts that the hospital management staff were still trying to recruit for. In my experience, the rapid increase in the number of doctors was not be best solution for the hospital as it has attracted workers who are transient in and may not display commitment to the upliftment of the hospital or the community it may serve. While the increase in human resources is a definite short term solution, it may not prove the best in the long term. As such, it may not be a true representation of the real rural health care problem. This study hopes to identify sustainable long term solutions.

6. Results from this study cannot be generalized to other health care institutes in other areas as the geographic, socio - economic and hospital circumstances may not be similar. A study conducted over the entire health district would have proved too costly. If a wider study had been undertaken, there would have been a need to obtain permission from more than one hospital and that was impractical given the circumstances and constraints of the deadline for submission and of course some budgetary constraints. Such a study would also not have been feasible due to the human resources and time constraints that this research was subject to.

7. While it is assumed that the responses recorded from the interviewees are truthful, it is important to acknowledge the limitation where responses are governed by acrimonious interactions and disillusionment within the working environment, driven by selfish motives. This limitation could also be extended to workers who were not interviewed as they were away from work. This limitation may be a variation of the healthy worker effect (LaDou 1997) whereby the workers who are disillusioned with working at St Apollinaris Hospital and may have stronger opinions about the shortfalls at St Apollinaris could possibly be those people who are absent, or on leave during the week in which the fieldwork was conducted. This may lead to a "softened analysis" of the problem that St Apollinaris may be faced with.

1.7 ASSUMPTIONS

Assumption 1: It will be assumed that the participants of the study responded honestly, to the questions posed during the course of the interview. As this study is aimed at identifying systems problems, it is anticipated that all interviewees will respond truthfully. The study is not to be viewed as a process whereby individuals are identified for any possible shortfalls in service delivery.

Assumption 2: The responses that were received, from those individuals that were present, are similar to the responses that would have been received from those employees that were absent, or away on leave.

Assumption 3: All essential equipment that was inspected during the study period was a true reflection of the hospital's current equipment status.

Assumption 4: The financial records received were complete and accurate.

1.8 STRUCTURE OF THE RESEARCH

This dissertation consists of five chapters. The first chapter outlines the general introduction and definition of the problem of the study.

The second chapter of the research is concerned with the literature review of material dealing with the problems found at rural health care institutes. The literature review also deals with the theoretical concepts of different managerial aspects from the Masters of Business Administration coursework.

The third chapter outlines the study methodology with reference to the study design and sampling techniques. A basic outline of the operational systems within the St Apollinaris Hospital is also described within this chapter.

The fourth chapter describes the results of the study.

The fifth chapter contains the discussion and the overall conclusion of the study. This chapter also provides recommendations on how to address problems identified during the study.

1.9 CONCLUSION

Chapter one has outlined the introduction and provided a brief background to the study. The importance and motivation for the study is discussed. The objectives of this research have been clearly identified and deal specifically with the human resource, management, equipment and financial problems that St Apollinaris, a deep rural hospital faces.

The next chapter will entail the literature review.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

Since the inception of democracy in South Africa, in 1994, there has been an increasing awareness of the inequitable distribution of equipment, financial and human resources, not only between the different race groups, but also between the different areas these race groups occupied (Klugman, *et al.*, 2000). A report on poverty and inequality by the Central Statistical Service in 2000 (Central Statistical Service 2000), illustrated that between-race inequality was considerable. The median white household income in 1995 was R60 000 per annum, as compared to the R12 400 for African households. In this report, African was defined as black households.

South Africa's health sector reflects the society which it serves (Macintyre, *et al.*, 1995). By this it is meant that the health care system provides different levels of services to the different social groups with the most affluent segment of the population, being able to access a highly developed private sector which provides the style of medical care found in the established market economies. With regards to the public sector, there is a large percentage of the health budget spent on a relatively small number of expensive hospitals in the metropolitan centres. Many of these hospitals are linked to medical schools. This leaves a gap in service delivery with a large proportion of the population not having good access to health services. This under serviced population comprises mainly of black underprivileged people.

On closer examination of the underprivileged people of the country, we find that most of the poor people of South Africa live in the rural areas (Central Statistical Service 2000).

12

The poverty rate in rural areas, i.e. the percentage of individuals classified as poor, is about 70% in rural areas, as compared to the 30% in urban areas. While one may argue that some rural areas have higher levels of poverty than others, specifically, the Sisonke District has a poverty level of just over 75%. (Internet 1)

With regards to health care, there is a drive to provide better services for the poor in rural areas (Central Statistics Service 2000) by improving infrastructure and resource allocation in terms of finance and human resources. But this drive has not been successful as the South African Medical Journal carried an article stating that the rural health system required major intervention, in terms of human resources, if total collapse of it was to be prevented (Bateman , 2006c).

In South Africa, the current method of assessing health care expenditure is to consider the total health care sector expenditure as a percentage of the estimated Gross Domestic Product (Klugman, *et al.*, 2000).During the 1994 to 2004 period, South Africa's health expenditure was approximately 8.7% of the Gross Domestic Product. However, the private sector share was 5.2% and the government sector share was 3.5% (Department of Health 2005). This illustrates that there is an obvious disparity in health expenditure between the public and private sector as 80% of the population relies on the public sector (Internet 1). This discrepancy in health care services can be further illustrated by the point that 62% of doctors and 58% of nurses work in the private sector which serves 20% of the population (Internet 2).

In nominal terms, health care spending has improved significantly, but when the rates of inflation and population growth are considered, that it is realised that health spending has remained static since 1995/1996 (Department of Health 2005). Public health care has been declining as a percentage of the Gross Domestic Product (Department of Health 2005).

But how does one go about addressing the problems that these under serviced rural areas face? The limitation of this literature review is that there is very little information collated

and recorded with regard to the rural health care sector in South Africa, let alone KwaZulu-Natal or the Sisonke District. Most literature reviewed in this chapter discusses rural health at a countrywide level.

2.2 THE AIM OF THE LITERATURE REVIEW

This literature review encapsulates the problems that rural health care institutes are facing. It will concentrate on:

- Human resources and possible problems thereof
- Government policies that influence human resources at rural hospitals
- Human behavioural aspects of work with respect to staff attitudes and behaviour
- Inventory control methods
- Essential Equipment and the management thereof, and
- Financial/ managerial accounting methods

2.3 HUMAN RESOURCES AND POSSIBLE PROBLEMS THEREOF

2.3.1 Human Resources in a Rural Health Care Institute

As at March 2000, a total of 218 244 people were employed by the national and provincial departments of health (Klugman, *et al.*, 2000). Of this total, 74% of workers were female. Approximately a quarter of the work staff was untrained. In 2005, there were 27964 medical professionals in KwaZulu-Natal. Of these, only 2113 were doctors. The largest number of medical professionals was professional nurses at 9475. This was followed closely by staff and student nurses category which had 8129 professionals (Department of Health - KZN 2006).

Human resources have been increasingly identified as one of the key factors necessary for consideration when one attempts to improve the current health care system. In previously disadvantaged areas like the Sisonke District, where the poverty level is greater than 70% (Internet 1), there is a move to providing better health services of which human resources plays a pivotal role in allowing for any transformation to occur (Health Systems Trust 2002). It is said that short of a major intervention, in terms of human resources, the rural health system will start collapsing from the year 2008 (Bateman, 2006a).

The dire need of a major injection of finance and skilled people is re-iterated time and time again. In a South African Medical Journal article, Prof Reid, of the Nelson R Mandela School of Medicine, stated that only 30% of district medical officer positions in KwaZulu-Natal were currently filled (Bateman, 2006a). Another article by Chris Bateman went on to say that there are effectively fewer health care professionals at present, than there were 10 years ago (Bateman, 2006b). In the Third National Aids Conference, it was said that the public health human resource sector was in crisis and that increasing the number of health workers alone would not be sufficient to improve the situation (Internet 1).

With specific reference to the St Apollinaris Hospital, it was said that the human resources component at the hospital has dropped from 1999 to the current period (Bateman 2006c). In an interview with the South African Medical Journal, Dr Bull, a senior doctor at St Apollinaris Hospital stated that the hospital should look to improve its systems by trying to attract senior doctors for a period of at least 3-5 years. Dr Bull, who has been employed at St Apollinaris Hospital for the last 12 years, stated that the backbone of the hospital was, at that time, the community service officers (Bateman 2006c). The employment of community service doctors has created a huge skills gap in the workforce as they are essentially untrained. Dr Bull stated that there was no drive by the management to actively recruit staff members.

In South Africa, the mass exodus known as the "brain drain" can be seen as a result of the lack of management, poor working conditions, and poor salaries as compared to their professional counterparts in other countries like the United Kingdom, Ireland and the USA. This coupled with the lack of appropriate skills, work overload and emotional burnout leads to poor staff morale, lower levels of productivity and service delivery (Gray, *et al.*, 2002). These factors are now compounded by the HIV/AIDS pandemic which is placing a greater burden on the health care system, particularly in rural areas, and this may result in the remaining health care workers leaving these areas.

In a study conducted in four rural district hospitals in KwaZulu-Natal and the North West Province, it was found that teamwork, the ethos, structures and systems of the team, and the capacity building of a team, has an effect on service delivery (Couper, *et al.*, 2005).

2.3.2 Current Strategies to Improve Human Resources

In a paper on strategic human resource planning (Department of Health 2005), it was acknowledged that there are both push and pull factors for health workers working in South Africa as opposed to international health care opportunities for such people.

Current strategies such as rural allowances and scarce skills allowances have failed to lure doctors who have left South Africa, back to our country (Bateman 2006b). There has been a move to try to attract foreign doctors to our rural hospitals, from countries like Cuba and Iran, which has led to the truth that our current rural health system would collapse without foreign doctors (Bateman 2006b).

With specific reference to St Apollinaris hospital, it does not receive the full 22% rural allowance afforded to other less rural hospitals. It receives 17%. This can be attributed to the allocation procedure of the allowances which are determined by the government which is based on a government listing of impoverished, under developed sectors (Department of Health, 2002).

Following many post 1994 legislation and white paper changes, by government such as the; White Paper on Transformation of the Public Service (1995), White Paper on Affirmative Action (1996); White Paper on Human Resources Management (1997); White Paper for the Transformation of the Health System in South Africa (1997); and White Paper on Local Government (1998), the following problems still remain:

- The unequal distribution of health professionals between rural and urban areas resulting in shortages of health professional in the public sector. This leads to the over-burdening of other health professionals.
- Lack of proper utilization of health professionals as a resource.
- Inadequate support of staff in terms of equipment.
- Racial and gender disparities between health care professionals.
- Increasing disease burden and patient workloads on health professionals.
- Lack of appropriate management skills.

The Country Human Resource Plan (Department of Health 2005) focuses mainly on the production of health personnel and development of staffing norms and standards.

The specific objectives of this plan are to:

- Assess the human resource requirements within the health service based on national and provincial departments' short, medium and long term operational objectives
- Assessment of existing human resource capacity by identifying the number and skills of staff currently employed, and their potential for meeting future requirements.
- Formulate a human resources plan which will address the gap between existing capacity and the required capacity will be met within the financial resources available.

In a positional paper Prof Reid (2001), attempted to illustrate to government, the shortfalls that rural hospitals were facing with regard to staffing. He stated that while community service doctors alleviated this problem, community service must be viewed as

a year of training. The idea of retaining senior South African doctors required a comprehensive approach beginning at the school and undergraduate levels. He noted that the current staffing gap was being filled by foreign doctors.

2.3.3 Human Resources from an MBA Perspective

In light of the current shortfalls in the human resources component, the concept of sustainability and possible methods in achieving this need to be considered.

Sustainability refers to the ability of a company/organization to survive in a dynamic competitive environment (Noe, *et al.,* 2006). With this idea in mind, it is important we remember all the stakeholders like employers, employees and the community, when developing any human resource plan.

In the human resources planning stage, there needs to be a consideration of either the forecasted need or surplus of staff (Noe, *et al.*, 2006). This will allow management to determine possible goals and strategies to meet these needs and sustainable ways to implement them. Indicators of workloads of health care workers revolve around patient workloads (Gray, *et al* 2005). In 1995, the doctor to patient ratio in South Africa was higher than countries like Mozambique, Chile and Nigeria, but lower than Brazil, Greece and Britain (Kale, 1995) . These ratios are illustrated in Table 2.1.

TABLE 2.1. DOCTORS PER 1000 POPULATION

COUNTRY	RATIO
Mozambique	0.02
Nigeria	0.15
Chile	0.46
South Africa	0.61
Peru	1.03
Britain	1.40
Brazil	1.46
Greece	1.73
United States	2.38

(SOURCE: World Development Report 1993: Investing in health. Oxford: Oxford University Press, 1993: 208-9)

With regard to South Africa it is difficult to ascertain the doctor to patient ratio as many of the doctors who have left the country are still registered with the Medical Associations (Kale, 1995). Hence, there is no effective way of determining if our country is over or under subscribed by doctors.

As other literature discussed previously illustrates that there is a nationwide shortage in staff, consideration needs to be paid specifically to possible methods of alleviating staffing shortages. As indicated by Noe *et al.*, (2006), these strategies may include:

- Allowing for overtime: This is a fast method of avoiding staff shortages, but it is not long term. It is also not suitable if the numbers are too few and the working hours too long. For example, nurses are required to work up to 12 hour shifts for seven consecutive days.

19

- Temporary employees: This is also a fast solution but lacks sustainability. As Dr Bull points out in his interview (Bateman 2006b) that as soon as senior doctors have developed a community service doctor, in terms of skills, the year is over and the community service doctors move onto other jobs.

- Outsourcing: This method can be implemented by offering remuneration for doctors/nurses based in private practice to work in public hospitals. The disadvantage of the St Apollinaris setting is that it is too rural to attract workers on a regular basis.

- New external hires: This is a sustainable process, but will take a long time to have a suitable impact if the incoming staff is not sufficiently trained.

With regards to the payment of workers performing overtime, a personnel circular (Department of Health, 1997) and a communication from the Director-General, Dr O Shisana (1997) has outlined the following payment structures:

- There are 4 modules of overtime that can be performed:
    - 0-4 hours per week which will be paid according to a public service staff code
    - 5-12 hours per week which will be paid for actual hours of overtime worked at a commuted rate equivalent to 8 hours
    - 13-20 hour per week which will be paid for actual hours of overtime worked at a commuted rate equivalent to 16 hours.
    - And greater than 20 hours a week where the rate will be determined by the discretion of the Head of the Provincial Department.

The shortcoming of this overtime pay schedule is that it has not been revised for the last 10 years and that it is only applicable to doctors and dentists. The researcher was unable to find any document dealing with the possible overtime of nurses.

The Rural Doctors Association of South Africa (RUDASA) has proposed possible methods of improving staffing at rural hospitals. This was discussed in their strategic plan (RUDASA 2005) and included the following:

- There should be an active marketing of rural hospitals through videos, website, with there possibly being a fulltime marketer assigned the portfolio of marketing the rural hospitals. While this is a good idea, RUDASA's strategic plan does not elaborate. The following must be considered from an MBA perspective:

    - Current marketing literature suggests that the target markets are identified through segmentation (Perreault, *et al.,* 2005). The process of segmentation involves the identification of broad product markets which are then divided into smaller markets, called target markets, based on characteristics. These characteristics can be demographic indicators, geographic indicators and behavioural indicators (Mullins 2005). Demographic indicators include characteristics like age, sex, income, education and reflect who the target customers are. Geographic descriptors indicate where a target population is, as different areas have different needs. Using geographic determinants typically entails defining a trade area by distance from the service (Mullins 2005). Behavioural determinants allow the marketer to segment the target market on how people behave with regard to the use of a particular service. There are different ways and categories to behavioural indicators, but a few broad categories include consumer needs, product-related descriptors and lifestyle related descriptors (Mullins 2005).

    - The four elements of the marketing mix must be adequately outlined (Mullins, *et al.,* 2005) i.e. the product, place, price and promotion. A product may refer to a physical good or a service. During this literature review, it is important to remember that the product is not the service

offered by the hospital, but the rural lifestyle to professionals interested in working in rural settings. The SAMJ cited the recreational lifestyle of a South African rural doctor as the most valuable, yet underutilized factor used to attract doctors to rural areas in one of its articles to promote the rural hospital work environment (Bateman 2006d). This should be the starting point of any future marketing plan.

- The place component of the marketing mix is concerned with getting the right product to the place where the target market is. This includes potential channels of distribution.

- The promotion entails informing people about the product and where it could be found. Promotion may be conducted on an individual basis or may be directed at the entire target population.

- Price, which is the last determinant, takes into consideration the cost of manufacturing of the product, as well as its distribution and promotion costs. However, other external factors like competition and customer reaction must also be considered. As the government pays salaries at a set level nationwide, price may not be a large determinant in attracting human resources to rural areas.

• Another strategy that RUDASA suggested was that an orientation package be compiled for new doctor recruits and community service officers. This package would educate future doctors about what is required from their work environments, the expectations thereof and potential recreational activities as well.

• There should be a drive to encourage and facilitate elective blocks for undergraduate training in the rural areas. This would be a good mechanism by which future doctors are introduced to rural environments before actually having

the added pressures of work in such an environment. An added advantage is that a good rural experience would possibly influence a learner to return in later years.

- The last proposed strategy was to explore the establishment of locum placement agencies to relieve of acute shortages that may develop at rural hospitals. A very successful initiative called the Rural Health Initiative was developed to attract foreign doctors into rural areas.

Although not discussed within the RUDASA strategic plan, it is important that the value of branding is considered in an attempt to attract new doctors to rural areas as part of a good marketing strategy. Keller (2003) suggests that branding can extend beyond products and services to organizations including those that are non-governmental. The following four steps are suggested on how to develop a strong brand (Keller 2003):

- The organization must ensure identification of the brand with customers and this identification must create an association, in the mind of the customer, with a specific product class or customer need.
- Firmly establish the totality of brand meaning in the minds of customers by strategically linking a host of tangible and intangible brand associations with certain properties.
- Elicit the proper customer response to this brand identification and brand meaning
- Convert brand response to create an intense, active loyalty relationship between customers and the brand

By implementing an effective marketing strategy with reasonable incentives, the rural health sector may be able to attract more professionals.

2.3.4 Staff Attitudes and Behaviour

Staff attitudes and behaviour in a rural hospital like St Apollinaris is difficult to assess.

While some health care managers identify a problem with the attitudes of health care workers, others cite a low morale which in turn leads to poor relationships between patients and health care workers as a reason for there being a perception of lesser levels of health care, among patients in the public sector (Klugman, *et al.,* 2000). Reasons for this poor staff morale and attitudes include salaries and conditions of work and the increase in workloads and lack of support systems (Klugman, *et al.,* 2000).

The Central Statistical Service (2000) has cited unsympathetic and rude treatment of patients as one of the factors influencing people's perceptions about the quality of service. It also went on to say that the perceived lack of caring by health personnel can be a deterrent to service utilization.

Karl Albrect (Internet 2) identified areas of complaints within service industries which he termed as the "Sins of service". These sins can be extrapolated to all instances where a service is being offered and include the following:

- Apathy: This is where staff display a "don't care attitude" and typically occur in areas where staff are bored with their jobs or lack proper supervision and management.
- Coldness: This is when staff display a hostile, unfriendly or impatient attitude towards their clients.
- Condescension: Staff display a patronizing attitude towards clients to make them feel child-like.
- The run around approach and the brush off attitude: This is where staff try to shift their responsibilities to other individuals or departments in an attempt to avoid their workload.
- Robotism: Staff display an almost fully mechanized approach to their customers resulting in their interactions being devoid of warmth or individuality.
- The rule book approach: This is a mechanism by which no special requests or favours are granted to clients as they are against the rules of the institute. While it

is essential; to have rules in place to prevent the abuse of resources, an employee should be cognizant of mitigating circumstances.

There is also literature on potential gaps within the service market which has been proposed by Ziethamal, Parasuraman and Berry in the form of the Servqual Model. However, it extends beyond the scope of this particular research project.

A government initiative to improve the quality of service in all public departments has been implemented and it is known as Batho Pele. This policy on the quality of service provided includes the following (Internet 3):

- Regularly consulting with customers and service users
- The establishing of service standards
- Improving access to services
- Ensuring high levels of courtesy
- Providing more and better information about services
- Increasing openness and transparency about services
- Attempting to remedy failures and mistakes
- Providing the best possible value for money.

However, no proper evaluation of this aspect of service has been conducted.

With regards to the potential dissatisfaction amongst health care workers in rural health care institutes, a study by Thomas (2006) must be cited. This study discussed reasons for possible occupational stress amongst health care workers, as dissatisfactions and difficulties experienced by the workforce may lead to lower levels of service quality. This, although not specific to a rural hospital, provides us with possible insight into difficulties that the individual faces while working in a public hospital like St Apollinaris. It was said, that the work environment, while not the only factor impacting on the levels

of occupational stress, was a pivotal one (Thomas 2006). The main sources of stress in the public health care sector were considered to be understaffing, lack of resources, lack of control, difficult work schedules, inadequate security and poor career advancement and salaries (Thomas 2006).

Doctors did not have a good perception of working in public sector hospitals and felt that they had little influence on their performance appraisals and career progression (Thomas 2006). Of the 2113 medical practitioners in the province of KwaZulu-Natal, only 217 were given promotions. This accounts for only 13% of the medical professionals (Department of Health 2006). Only 10.3% of medical practitioners received notch increases in their salaries (Department of Health 2006). This perception leads to poor motivation.

Junior doctors had higher levels of job satisfaction and this could have been attributed to youth, enthusiasm and better coping strategies (Thomas 2006).

2.3.5 Staff Attitudes and Behaviour from an MBA Perspective

As Misselhorn (2005) suggests in his book on evaluating human behaviour within organizations, one needs to identify a number of aspects of the work environment before attempting to formulate a solution. These factors could be diagrammatically summarized as follows:
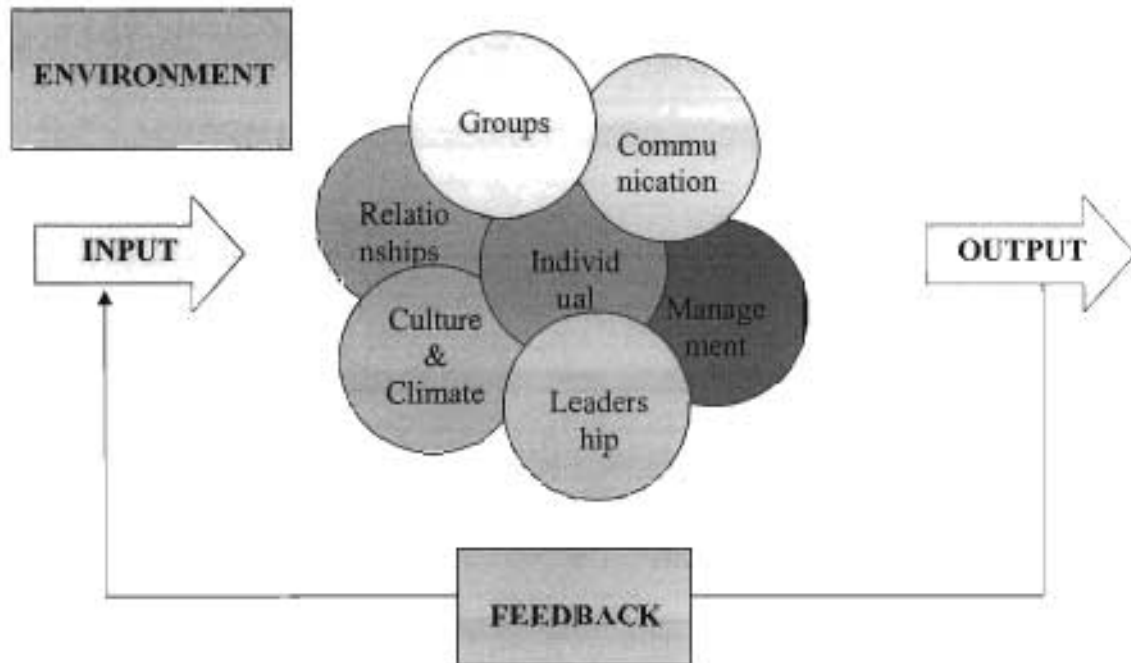
FIGURE 2.1: A MODEL FOR HUMAN ORGANISATIONAL BEHAVIOUR
(Source: Misselhorn, H, 2005, Understanding and managing your organization)

This model illustrates the diversity within which the workplace functions. It allows us the ability to begin to unpack some of the issues that arose from Thomas's study. The model allows us to divide the workplace into an external and internal component:

- The External Component: This comprises of :
    - The Inputs which are the demands, resources and information which is fed into the organization.
    - The Outputs which are the products or outcomes of the organization.
    - The Environment which is the context in which the organization operates. The environment is affected and includes geographical, political, socio-economic, legislative and technological factors that may influence the way the organization operates.
    - Feedback mechanisms which is a process whereby the company is able to analyze its output to improve its internal processes.

- The Internal component:

27

- The individual is a unique functional unit of the organization. LS Thomas's study focused mainly on this aspect in her study as it deals with the perceptions, feelings, learning and coping strategies as well as an individual's need for motivation.

➢ A suitable model to illustrate an individual's motivation was proposed by Maslow, where he proposed the concept of a need. Maslow's hierarchy of needs (Figure 2.2) could be used to facilitate employee's motivation at the work place (Internet 5). In order to facilitate an employee's optimal performance at work, we need to ensure that the lower levels of the pyramid of needs are satisfied.

Self-actualization — morality, creativity, spontaneity, problem solving, lack of prejudice, acceptance of facts

Esteem — self-esteem, confidence, achievement, respect of others, respect by others

Love/Belonging — friendship, family, sexual intimacy

Safety — security of body, of employment, of resources, of morality, of the family, of health, of property

Physiological — breathing, food, water, sex, sleep, homeostasis, excretion

FIGURE 2.2: MASLOW'S HIERARCHY OF NEEDS
(SOURCE: www.wikipedia.org)

➢ Herzberg, who identified 2 sets of factors in his two factor motivation theory, allows us to do this as he has identified hygiene factors which help satisfy the lower levels and motivators which satisfy the higher levels of the pyramid of need (Nel, *et al.*, 2004).

➢ The hygiene factors include organizational policy, equipment, and supervision, interpersonal relationships with co-workers, salary, status, working conditions and working security. While the hygiene factors do not motivate, the lack of them results in employees being dissatisfied at work.

➢ The motivators which include achievement, recognition for what has been achieved, the nature of the job with regard to stimulation, individual learning and self development, responsibility and feedback allow for the upper levels esteem and self actualization to occur. The motivators are the factors which actually motivate the employee to excel at a job.

- The group is a collection of people who come together to perform a common task and have a particular structure or relationship.

- Relationships are defined by Misselhorn (2005) as "the explicit and implicit transactions and interdependence which occurs between individuals, between groups and between communities."

- Communication is the process by which information is transferred by individuals within an organization.

➢ A number of complaints relating to job dissatisfaction were centralized around the lack of communication between the different health departments and higher levels of management

29

(Thomas 2006). Misselhorn (2005) outlines the following model to try to explain the process of communication:
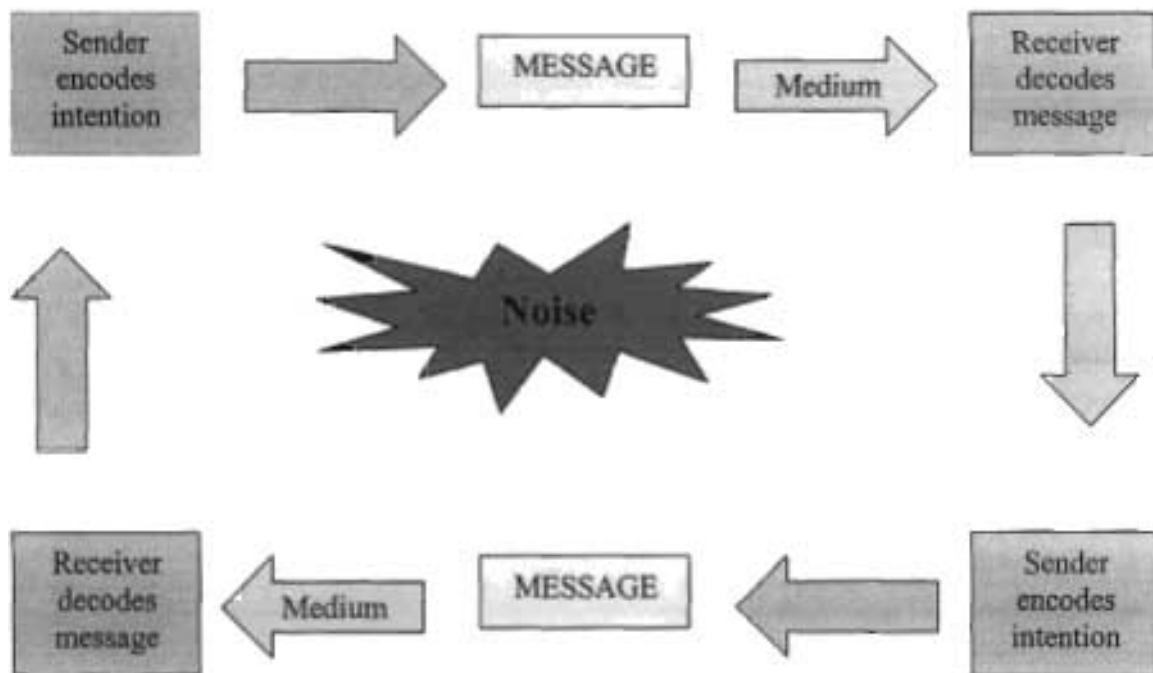
FIGURE 2.3 THE PROCESS OF COMMUNICATION
(Source: Misselhorn, H. 2005, Understanding and managing your organization)

> Mullins (2005) says that feedback (which is an external component of the human behavioural model) is an important part in the motivation of a workforce. The feedback process enables individuals in the workplace to determine the success or failure of their accomplishment and this allows them to derive job satisfaction.

> Open communication and the sharing of information between co-workers leads to good relationships and unity amongst health care teams (Couper 2005). Purposeful meeting allow these relationships

to be properly cemented and are an essential part to teamwork. Regular purposeful meetings, held between all sections of staff provide an essential element to good team functioning and hence, improved service delivery and better staff morale (Couper 2005).

➢ Harrison (1997), as part of an initiative to improve communication in the health sector outlined the following:

- The populations amongst which we want to improve communication must be clearly defined.
- There needs to be a clear definition of what issues need to be discussed.
- There must be a clear mechanism or process by which the different groups are allowed to communicate. This may be in form of meetings, verbal or written communication.

- Culture and climate is the traditional values, beliefs and customs that prevail through an organization at a particular point in time, in a particular setting.

- Structure and design is the framework within which people are able to accomplish tasks at work.

- Management and leadership is the process whereby influence is exerted over the organizational processes to ensure that the proper direction and control of the work processes occur. However, we need to draw a clear distinction between management and leadership. Management is more suitably defined as the planning, organization, directing and controlling of subordinates within an organization, while leadership, which does not necessarily occur in an organizational hierarchy, is more concerned with communicating, motivating,

encouraging and involving the people around the leader (Mullins 2005).

➤ Mullins (2005) highlights differences between management and leadership and says the following:

- A manager administrates while a leader innovates. Leaders are able to understand complex issues and solve problems while a manager simply ensures that a process occurs. This ties in with the idea that a manager keeps an eye on the bottom line while a leader pays attention to the direction in which he wants the organization to go in.
- A manager maintains while a leader develops. This means that a manager simply operates the system everyday, while a leader is able to make good decisions that alter an organizational process to improve its efficiency and effectiveness.
- A manager focuses on systems and structure while a leader focuses on people. Managers ensure that a job is done with checks and balances in place while a leader is able to earn the trust of a subordinate and gain their confidence. Essentially, a manager relies on control while a leader inspires trust.
- A manager keeps an eye on the bottom line while a leader has his eye on the horizon, and
- A manager does things right while a leader does the right thing. Managers are able to carry out the tasks assigned to them successfully, while leaders are able to show understanding, sensitivity and a high level of morals and values when completing a job.

With effective leadership, we are able to control the 'soft skills/factors' which play a role in a person's attitudes towards work, relationships with co-workers, self perception and self development (Mullins 2005).

A study by Couper (2005) reiterates some the principles proposed by Misselhorn's Model of human organizational behaviour but has specific reference to rural hospitals. This study was able to identify 13 themes which could be grouped into 3 categories namely:

- *Teams who worked together to achieve a common goal:* This category included ideas like teamwork, effective communication, relationships and unity amongst team members.

- *Infrastructural system processes and value systems:* In this category, the culture and climate of the team, and its support structures were discussed. It was stated that a problem solving perspective contributed to better team functioning.

- *Health service and the community:* this category listed community involvement and integration as ways of improving morale. Capacity building was also seen as an effective strategy to improving service delivery.

2.4. INVENTORY CONTROL

Developing an effective inventory control system is essential to ensure adequate levels of service delivery. There are current mechanisms like drug stock cards to monitor pharmaceutical items, but little attention is paid to other consumable items used in the everyday running of the hospital. Examples of these consumables range from gloves to syringes to Intravenous fluid administration sets.

Lack of adequate resources has also been cited as a possible reason for poor job satisfaction amongst public health workers (Thomas 2006). There was no governmental

recommendation on possible inventory control of consumables that the researcher could locate.

Proper inventory control is not only important to prevent stock outs, but it also allows for the minimization of inventory costs (Render, *et al.*, 2003). These costs can be differentiated into ordering costs like developing and sending and paying of orders, and carrying costs which include cost of capital, insurance and spoilage.

The most effective way of managing inventory is the Economic Order Quantity (EOQ) method. The objective of the EOQ is to minimize total inventory cost with relation to the ordering and carrying costs. However, it works on the assumption of a known predictable demand pattern and lead time (Render, *et al.*, 2003). This is not always the case and the possible use of safety stock may be considered.

Another effective method of inventory control is the ABC Analysis (Render, *et al.*, 2003). Here, the inventory is divided into 3 classes based on their levels of importance and the cost thereof. The most amount of time should be spent managing those items with the highest rand usage as this would be where the cost saving would be the highest. The items with high rand usage are classified under class A, while those with the lowest usage are classified under class C.

2.5 ESSENTIAL EQUIPMENT AND THE CONTROL THEREOF

In 2006, there was an initiative undertaken to compile a list of basic hospital equipment for the different levels of health care within the province of KwaZulu- Natal (Havinga 2006). It focuses on the out-patient department, medical, surgical and pediatric wards and major and minor operating theatres.

In 2003, the Department of Health proposed a manual on the management of equipment at hospitals. It was recommended that all health care facilities have an equipment team in place to control the procurement, storage and maintenance of the hospital's equipment.

This equipment team should ideally comprise of an equipment officer, a technician (if available), a stores personnel (preferably someone handling procurement), a nursing staff member, a medical person, and a member of institutional management (Department of Health 2003). This equipment team is allowed to ask for specialist advice and input as deemed necessary. The equipment team is required to meet at least once a quarter and the minutes of this meeting are to be recorded and kept for reference purposes. The responsibilities of this equipment team should entail the following (Department of Health 2003):

- Assist with drawing up estimates and budgets for equipment.
- Consider prioritization of medical equipment needs.
- To play an active role in the procurement of equipment and assist with specifications and recommendations.
- Assist with the equipment pool and the distribution of equipment within the Institution.
- Identify equipment training needs and arrange training.
- Share expertise and play an advisory role.

The Manual on Equipment Procedures also went on to state that a pool of equipment must be created so as to allow for the storage of medical equipment that could be loaned to the wards, as the need arose. The advantage of a medical equipment pool is that it would allow for (Department of Health 2003):

- Optimal service delivery at all times.
- The discouragement of the hoarding of medical equipment by the wards and departments.

- An improved state of finance as institutions would save money as equipment is shared.

- The optimal management of a disaster as additional equipment will be readily available.

The Medical Equipment Procedure Manual (2003) highlights that a proper inventory of equipment be maintained and should have details of the serial numbers, year of manufacture, repair details, etc. There should also be an effective maintenance program initiated and maintained. The manual lists and describes 44 pieces of medical equipment and what the maintenance policies for these items should be. This list includes items like Blood Gas machines, diagnostic sets, anaesthetic machines, air-conditioners, etc.

2.6 THE OUTPATIENTS

In 2006, a quality improvement project regarding the streamlining of the out patients at St Apollinaris Hospital was carried out by the medical team. While this internal document has been sourced from the medical team at St Apollinaris, its purpose was mainly to improve service delivery and was not a part of any formal study.

The quality improvement project highlighted the following:

- There was an inadequate referral pattern being implemented in the district.
- There were large numbers of patients that could have been seen by the primary health care clinics that were being consulted by the doctors.
- The administrative component of the doctor's jobs was poorly co-coordinated.

Some of the recommendations put forward included:

- Patients would only have been allowed to be seen by the doctor:
    - If they had referral letters from either primary health clinics or another doctor.
    - If they were follow-up cases i.e. had been seen by a doctor previously.

- If the patient was an emergency case.

- Administrative work should have been allocated to one day a week. On this day, there would have been a booking system instituted. The maximum number of patients to be booked would have been 15.

2.7 FINANCIAL/MANAGERIAL ACCOUNTING AND CONTROL THEREOF

One of the most important budgeting/financial planning principles is the accountant's ability to understand cost behaviour. It is important to understand the difference between direct, indirect, fixed and variable costs.

- Direct costs are costs that can be easily traced back to a particular job or process (Garrison, et al., 2006). In the setting of a health care institute these include costs like blood investigations or X-Rays.

- Indirect costs are costs that cannot be traced back to a particular task (Garrison, et al., 2006). In the health care setting indirect cost would include processes like the taking of blood, where no cost is attached to the swabs, disinfectant or gloves used.

- Fixed costs are costs that remain constant regardless of changes in levels of activity (Garrison, et al., 2006). For example, the monthly instalment that a company may pay for a motor vehicle is a fixed cost. In the hospital setting, it may be the charge of renting equipment for a laboratory that may be considered as a fixed cost.

- A variable cost is a cost that differs with changes in levels of activity (Garrison, et al., 2006). A variable cost can be further classified as a true variable cost or a mixed variable cost. This is where there is a component of the cost that is fixed. An example in the health care setting would be laboratory equipment. There is a

certain cost associated with leasing the equipment, but for each investigation
performed there is an additional cost.

In order to understand cost behaviour, with respect to variable costs, an activity base for
cost allocation must be identified. Within health facilities possible allocation bases within
medical facilities can be the number of patients seen, number of employees or the number
of hours worked (Garrison, *et al.*, 2006). The following graph is used to illustrate the
relationship between fixed and variable costs:
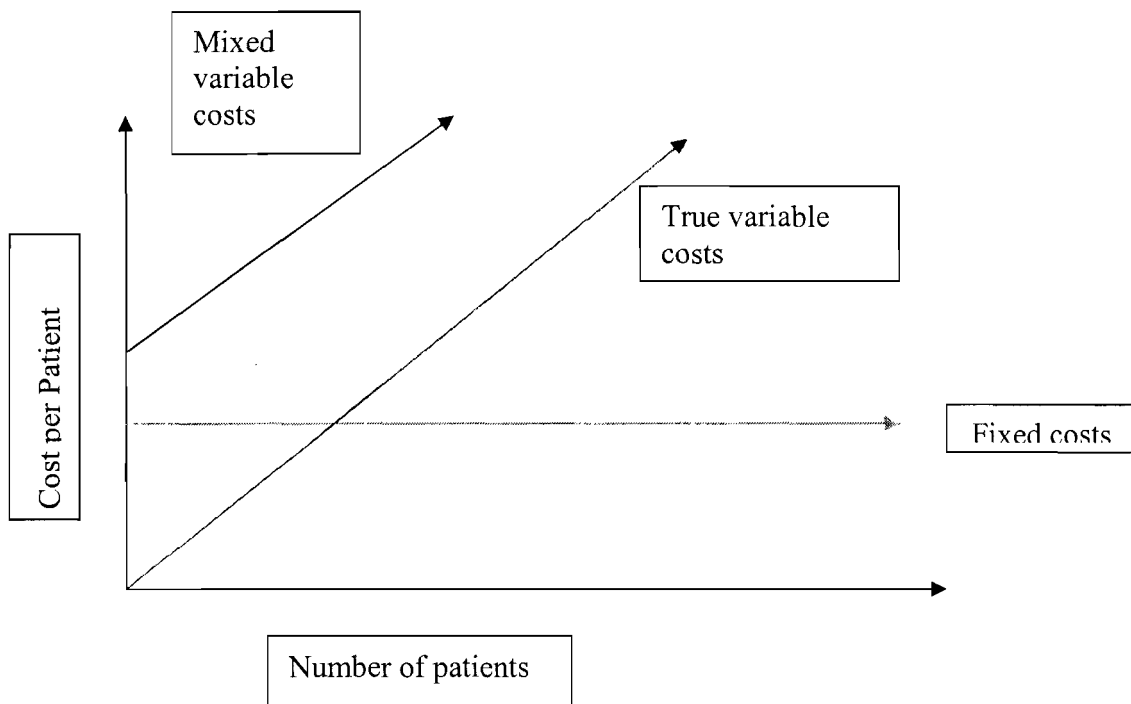
FIGURE 2.4 GRAPH OF FIXED, TRUE VARIABLE AND MIXED VARIABLE
COSTS

Figure 2.4 illustrates that fixed costs do not increase with an increase in activity and can
be drawn by the equation y = c (where "c" is a constant). A true variable cost is zero
when there is no activity but increases as the level of activity increases and can be
described by the equation y = ax (where "a" is the level of activity). A mixed variable

cost has both a fixed and true variable component to it and can be described by the equation $y = ax + c$ (where "a" is the level if activity, and "c" a constant).

Within organizations, service department costs are allocated to the operating departments (Garrison, *et al.,* 2006). The reason for this allocation is to encourage operating departments to make effective decisions regarding resource utilization. The allocation of costs also allow for a more complete assessment of the operating unit's true cost and hence its profitability. The process of service cost allocation to operating departments is not utilized in the public health sector.

As our health care system moves towards decentralization, there is a need for the optimal use of resources by health service managers. Natasha Palmer (1997) highlighted the need for more education and training of staff on budgeting in the Northern Cape. With the move towards a more decentralized budgetary process, she outlined that there needs to be a more effective report back process to regional offices as it would strengthen the regional manager's ability to monitor and effectively budget for their expenditure. Palmer (1997) said that there was a need for consolidated reviews of health expenditure so as to allow for a foundation of information on which planning and budgeting could be made.

Previously, financial planning was left up to hospital secretaries as they had the most experience (Engelbrecht 1999). With the move towards decentralization, service managers need to play a more active role in institutional financial planning.

Beth Engelbrecht (1999) proposed the following steps to allow for efficient service delivery and financial planning:

1. Service management situational analysis. In this step, the previous and current situation is reviewed in terms of service priorities, goals and gaps.
2. Areas of improvement are identified and goals set.
3. Financial planning and budgeting is done. This is based on the service situational analysis, the previous year's expenditure patterns and the expenditure framework

of the district. With regards to the previous year's expenditure, a financial manager must pay close attention to the staffing, equipment, vehicles and facility costs. As health services are personnel intensive, the main cost driver is the human resources component which comprises of 70-80% of an institution's health care expenditure.

4. Financing: Income is derived from various sources. In the public sector income typically has 4 points of origin (MacIntyre 1995):

   - Government revenue
   - User fees (that paid by people utilizing facilities
   - Donations
   - Moneys from public private partnerships

5. Service delivery and financial management: During the financial year, service delivery as well as financial administration occurs. Expenditure and cash flow is regularly monitored. This allows for the proper allocation of available funds.

6. Service and financial reporting and analyzing: This entails the analysis of expenditure and how well they met the goals that were set out in terms of service delivery. This process allows for the identification of gaps in the system which will enable more efficient planning during the next financial period.

With regards to budgeting, Garrison, *et al* (2005) provides a summary of budgets and their inter-relationships:
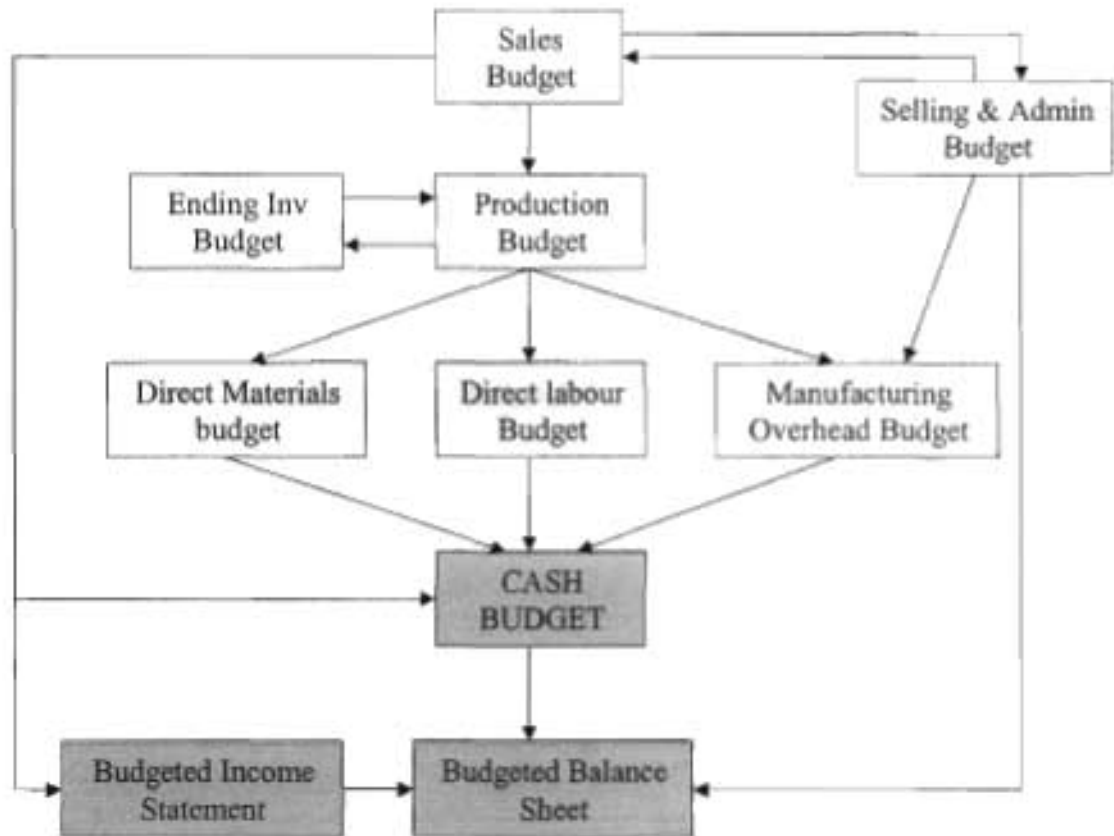
FIGURE 2.4 THE DIFFERENT BUDGETS AND THEIR INTERRELATIONSHIPS
(Source: Garrison, *et al.*, Managerial Accounting, 2005)

The various budgets illustrated above may not be applicable to the health care setting in South Africa, but the outline allows an individual the ability to understand the types of budgets available and how they relate to each other to provide a holistic picture of the possible income and expenditure of an organization.

2.8 CONCLUSION

This literature review has focused on literature from the public health sector and a business management point of view. It has focused on human resources, equipment,

inventory and financial control which may be applicable to the rural district hospital of St Apollinaris.

The human resources component highlights that major interventions are needed to improve human resources as this is a key area if the entire health system is to undergo improvement.

The equipment component highlights that there is a list of essential equipment to hospitals, which although not complete, is a good starting point of reference for a rural hospital.

Review of literature on inventory control illustrates that the lack of adequate resources is a source of frustration for medical professionals. There are no prescribed inventory control methods for items other than drugs.

The literature has shown that there is a need for skills training at St. Apollinaris, with regard to financial planning and budget formulation.

In the next chapter, a brief background of the St Apollinaris Hospital will be discussed. The next chapter will also discuss the study methodology.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

After identifying the need for this study and reviewing literature around the research topic of problems facing rural health care institutions, a research methodology was decided upon and it is discussed in the chapter.

Research around any rural health care problem promises to be difficult to design due to the following factors, amongst others. It is important that terms are clearly defined to avoid ambiguity. It is also important to correctly identify the type of information needed for the study and the most cost effective way of gathering data yet ensuring its validity. In the light of this, some background to St Apollinaris Hospital will be provided before details of the research methodology are discussed.

This chapter will briefly outline the operational systems at St Apollinaris Hospital. The researcher will describe the target population, sampling techniques, statistical analysis, ethical considerations and problems that were encountered under their respective headings. The researcher discusses the process whereby the interview schedules were designed and what attempts were made to improve the validity and reliability thereof.

3.2 THE OPERATIONAL SYSTEMS AT ST APOLLINARIS HOSPITAL

Based on the information provided by a senior staff member at St Apollinaris, the structure of the health care system is a complex one (Personal Communiqué 3). Within the St Apollinaris Hospital, there are many levels of managers and different departmental organograms.

In total, the St Apollinaris Hospital has a staffing contingent of approximately 250. According to the July duty rosters (the month in which the field work was conducted) there were 205 nurses, 14 doctors, 20 administration staff.

With regard to working times of the nursing staff, which form the largest component of the staff, there are 2 teams that work every alternate week, from a Thursday morning to Wednesday evening. Within these two teams, there are 2 shifts namely 7am to 7pm and 7pm to 7am. Within the nursing team, nurses are divided into wards. Each ward is managed by a chief professional nurse who reports to a unit manager and then the nursing manager.

Concerning the doctors, normal working hours are from 8am to 5pm, Monday through to Friday. Overtime is worked from 5pm to 8am the following morning.

The general administration staff works from 8-4 p.m., every Monday through to Friday. Top management is defined as those persons who plan, organize, lead and control business activities (Jones *et al.*, 2005) and in the St Apollinaris setting has been identified as comprising of (Personal communiqué 2):

1. The Hospital Manager
2. The Nursing Manager
3. The Medical Manager
4. The Financial Manager
5. The Human Resources Manager
6. The Supply Chain Manager
7. The Systems Manager

All people not identified as managers will be regarded as general employees, for this study.

The general employees comprise of health care workers, which include the doctors and nurses, and support staff can be divided into 2 categories, i.e. the administrative and non administrative. Administrative staff includes secretaries, finance and human resource staff, while non administrative staff includes general assistants, switchboard operators, etc.

3.3 STUDY DESIGN

This research was mainly quantitative with some qualitative aspects. The reason for choosing a quantitative type of study for the interview component was that the researcher wished to identify problems that may have existed at the rural hospital (Leedy, *et al.*, 2005). A quantitative study enables one to determine specific quantifiable issues whereas a qualitative study tends to be more subjective and provides reasons for the problem/issue.

The study was descriptive in its design. It was cross sectional with the fieldwork being carried out from the 9th July 2007 to 21st July 2007.

The reason for choosing such a study design was that such a study would allow for the situational analysis of the rural health care problem (Katzellenborgen, 1997; Joubert, *et al.*, 2007). The advantage of a cross sectional study is that it is easy and relatively inexpensive to conduct while providing a good overall picture of the situation.

3.4 THE TARGET POPULATION

3.4.1 The Human Resources Component

- **With regard to the general staff:** This study aimed to target the health care professionals, as well as the administrative component of the supporting staff. The non-administrative staff were not considered to be part of the target population as

their job descriptions entail the cleaning, maintenance, gardening and security services. These services were sometimes outsourced, for example the cleaning and security services, and therefore their management fell outside the scope of the hospital. The remainder of the non-administrative staff, while under hospital management, had very limited contact with medical equipment and hospital management, and would not be able to provide the information the researcher hoped to obtain.

- **With regard to top management:** This study targeted all those individuals identified as top management as they had been part of the management team and as such were best placed to provide suitable responses concerning the intricacies of the hospital. As top managers they would have also been able to provide the researcher with potential solutions that they have tried to implement to alleviate the problems workers may face. The top managers would have provided reasons or potential shortfalls regarding the failure of previous programmes.

3.4.2 The Out Patient Component:

Data was collected about all people utilizing the service for a one week period during the July 2007 to August 2007 time period.

3.5 SAMPLING TECHNIQUES

3.5.1 The Human Resources Component:

Due to the complex nature of the hospital structure, the number of staff working at the hospital, the availability of resources in terms of people, time and finances, the following was decided upon to represent the study and sampled population:

- **With regard to the top management:** As there were a small number of top managers, all top managers were chosen to be interviewed.

- **With regard to the general staff:** All members of the target population identified above were to be interviewed. This would have included the health care professionals and the administrative staff. The non-administrative staff was not included. This would have allowed for a proper representation of the different confounders, which were factors outside the causal pathway that may affect the data we wish to collect (Gordis 1997). With specific reference to this study, confounders may arise with regard to different teams, different shifts and different ward allocations of staff and resources. With this, we can also try to limit the study's effect modifiers which are factors within the causal pathway which could adversely influence the researcher's results (Gordis 1997).

3.5.2 The Out Patient Component:

A survey was carried out to determine the type of patients utilising the St Apollinaris Hospital and this aimed at identifying the needs of the population, which the hospital had serviced. As it targeted all patients seen by a doctor in out patients, there was no sampling done.

3.6 THE SAMPLING FRAME AND SAMPLE SIZE

The sampling frame that was used was the Duty rosters for the staff at St Apollinaris Hospital for the month of July 2007. As all workers were asked to participate, and no sampling was done, the data about the entire study population was to be gained. Hence there was no need to determine a suitable sample size (Kirkwood, 1988).

However, in order to ensure the validity of our results, a large percentage of the population would have had to respond to the structured interview. Katzenellenborgen

(1997) stated that a response rate of 80% would have been considered acceptable. There were 128 individuals, present during the stated period, who met the criteria for the general worker population. Of the 128 individuals present, 110 individuals, which is 86% responded to the interview.

3.7 THE EQUIPMENT COMPONENT

As mentioned previously, the hospital is divided into different departments. Within these different departments, there is a need for different types of equipment based on their primary functions. Another point of consideration is that some of these departments may have higher levels of equipment as compared to others due to preference been given to the nature of their activities, for example, operating theatres as opposed to a chronic medical ward. As it would be impossible to sample without adjusting for these confounders, the levels of equipment in all the different departments of the hospital will be assessed.

An inventory was to be conducted according to the list of essential hospital equipment as published by the Department of Health. Each item on the list was to be assessed if present or not, and then if the item being assessed was in correct working order.

3.8 THE BUDGET COMPONENT

Records of the hospital's last financial year were to be obtained. These would have included the proposed budgets of the Income Statements and Balance Sheets, as well as the actual year end Income Statements and Balance Sheets.

There was to be an analysis of the records of the cash flow committees to determine spending on non-essential items.

3.9 DATA COLLECTION INSTRUMENT/S:

3.9.1 The Human Resources Component:

The data instrument utilized was dependant not only on the target population, but the type of information required, the environment in which the data was collected, the type of interviewer and the resources available to the investigator in terms of time, money and human resources (Katzellenborgen, 1997).

For the human resources component, a structured interview was used. The interview comprised of both open and closed questions with participants being allowed to elaborate further on points that they had believed were of significance. Two interview schedules were prepared and used, with one being aimed at the general employee, and the other aimed at the top management. The structured interview was chosen so as to ensure a high level of compliance with the personal contact facilitating response and quality. The disadvantage of such a collection tool is that it is a time consuming process which may be affected by interviewer dynamics and variation between interviewers (Joubert, *et al.,* 2007).

The structured interview focused on the problems that could be encountered while working at St Apollinaris Hospital. The interview process attempted to identify worker's perceptions about the levels of equipment and possible solutions that worker's perceived as being able to alter the problems that exist at St Apollinaris Hospital. The interviews attempted to identify reasons for people commencing and continuing working at St Apollinaris Hospital, in order that appropriate factors which could be used to formulate an effective staff recruitment and retention strategy could be identified.

The interviews were not structured to identify shortcomings with respect to specific individuals as this is not the aim of the research. However, potential problems within groups of individuals were explored as these problems affect the effective functioning of

the hospital. Using this broad categorisation enabled the researcher to identify the groups where minimal intervention will prove to have the most effect.

3.9.1.1 DESIGNING OF THE INTERVIEW SCHEDULE

The interview schedules were designed with consideration of the following (Katzellenborgen, 1997; Joubert, *et al.,* 2007):

- **The variables that were to be measured:** As this data is both quantitative and qualitative, there were both categorical and numerical data that was elicited. The determination of the variables was based on the researcher's experience of working at the St Apollinaris Hospital. As the researcher attempted to identify possible problems that may exist, the variables were mainly categorised into ordinal data using a Lickert scale (Kirkwood, 1988). This helped identify the type of problem experienced and the severity/frequency of the problem.

- **Formulation of the questions:** The questions were phrased so as to ensure that they were simple, concise and specific. The questions were also designed to elicit the required amount of information with regard to the identified variables that would enable the researcher to achieve the objectives outlined previously. Some questions were left open ended due to the nature of the information required. Closed ended questions that were mutually exclusive and exhaustive, were used. A Likert scale of one to five was used. While it is advisable to use an even numbered scale, to avoid excessive selection of the middle value, an odd numbered scale was used to ensure that the scale was balanced. The use of a 5 factor scale was used to ensure that the avoidance of extreme values was minimised (Joubert, *et al.,* 2007).

- **The organisation, and structure of the interview questions:** The interview schedule was designed to capture information in the following sequence:

> Demographic data

> Human resource data

> Equipment issues

> Management issues

> Financial issues

> Possible solutions

- **The coding of the interview schedule:** Coding was done using numerical values for different responses. This facilitated the collation of data which was done by hand.

- **Piloting of the interview schedule:** The interview schedule was piloted amongst 7 health care workers to ensure that the questions were easily comprehended by potential interviewees. The approximate time for an interview to be completed was also determined. The results of the pilot confirmed that many of the questions posed elicited the required information and the schedule. However, some questions were found to be ambiguous.

- **Changes after the pilot:** Changes were made to ensure that ambiguities were removed and that relevant and pertinent information was extracted from the interviewee. The interview schedule was considered valid and reliable after the corrections were made.

3.9.2. The Out Patient Component:

The data was collected with the aid of a spreadsheet. This spreadsheet identified the patients by their patient numbers as to allow doctors to keep track of the information they were recording. The data collected did not include any reference to any medical condition that the outpatient may have been suffering from. In completing the spreadsheet, doctors

were required to classify the patient's reason for visit into an emergency, an administrative or a follow up consultation.

The doctor would indicate if the patient was referred by a primary health clinic and if there was a need for doctor intervention or consultation.

3.9.3 The Equipment Component:

There was a stock take done taking into account if all essential items were present and the working condition of these essential items. The data was collected on a spreadsheet. There will be a check done to assess if all essential equipment items are present. The determination of which medical equipment items were classified as necessary or not was based on the information gained from the list of essential medical equipment published by the Department of Health (Havinga, 2006). According to this essential equipment list, most items of equipment are individual items. However, certain items were grouped, for example resuscitation trolleys. Due to the nature of these items, the presence of a resuscitation trolley will be acknowledged, but if any item on the resuscitation trolley is found to be malfunctioning, the entire trolley will be considered as not working as without that vital piece of equipment the entire trolley is deemed to be deficient, in terms of the Departmental guidelines.

3.10 IMPROVING THE VALIDITY AND RELIABILITY

3. 10.1 The interview schedules

Every attempt was made to ensure reliability and validity of the data collection tools.

Validity refers to the extent to which a data tool is able to measure what it was designed to measure, while the reliability refers to the consistency with which the data tool is able to measure a certain result (Leedy, *et al.*, 2005). This was ensured by using structured

questionnaires for both the general employees and top management, which was piloted amongst health care workers, before being used in the field.

The reliability of the interview schedule was ensured by the piloting of the schedule with the pilot study revealing that the structured interview schedule decreased instrument and subject variation. (Joubert, *et al.*, 2007) The observer variation was limited by training of the fieldworkers as outlined below (Joubert, *et al.*, 2007).

3.10.2 Fieldworkers

Two fieldworks were asked to assist in the collection of the data. The requirements for them was that they had to be students or have had obtained a University degree and that they had had some human resources or business exposure. Fieldworkers were chosen from outside the St Apollinaris Hospital setting as this may have affected interview responses. Individuals with credible references were chosen. The fieldworkers were trained by the researcher.

As the interviews were also conducted at night, the fieldworkers were required to have suitable transport to and from the hospital. The fieldworkers were paid at rate of R50 per day with meals provided. The fieldworkers were not paid per interview conducted as this may have led to inconsistencies in the data collection.

3. 10.3 Conducting the interviews

The interviewers underwent a training process whereby they were educated about how to conduct a productive interview (Leedy, *et al.*, 2005) by ensuring that:

- A suitable private location was used when conducting the interviews. This would have allowed respondents to be more truthful when answering questions.
- Informed consent was obtained whereby each respondent was given the option not to take part in the study. Respondents were also told that they need not

respond to questions they may have felt were too personal or of a sensitive nature. Respondents were also given the option of withdrawing from the study at any time.

- Interviewers were encouraged to establish and maintain rapport with the respondents by starting the interview with "small talk". Interviewers were requested to remain cordial and courteous at all times.
- Interviewers were urged not to ask questions in a manner that would be leading.
- While time was a major constraint, interviewers were encouraged to record answers to open ended questions verbatim or in shorthand which would allow the data capturer to determine what was said and possibly meant by the interviewee.
- Interviewers were encouraged to maintain neutral body language and to avoid expressing emotions or reacting to interviewees' responses.
- They were also trained to allow respondents to proceed at a comfortable pace and were implored upon not to lead the respondents.

The use of a structured interview and the adequate training of each interviewer/observer minimized both inter–observer and intra-observer variation.

Spreadsheets were used as data collection tools for both the equipment and out patient components limited the amount of variation that could have been introduced by the observer. Doctors were used as observers as this allowed for a better assessment of the need for doctor intervention in the out patient component and the working order of the essential equipment.

The data was collated, cleaned and checked for missing values and values that may have been implausible.

3.11 STATISTICAL ANALYSIS:

All data collected was collated using Microsoft Excel and analyzed using Stata Version 9.0. The data was divided into quantitative and qualitative variables (Kirkwood, 1988).

The discrete numerical variables were checked for values that fell outside the plausible range and to missing values were identified and excluded from the analysis. The characteristics of this data were investigated by identifying the central location of the data and the data's variability. The central location was identified and described using the arithmetic mean. Measures of variability will be described using the range. Standard deviations and confidence intervals were not used.

The categorical variables were further classified into ordinal, nominal and binary variables which were described by means of frequency, the percentage of responses, and the cumulative frequencies.

The use of categorical data, as opposed to quantitative data, resulted in there being minimal statistical tests that could have been used in this study. However, as the aim of the study was to identify relationships and key areas of which could have been improved, there was no need for extensive statistical testing with a description of percentages and cumulative percentages allowing our aims to be met (Katzenellenborgen 1997).

3.12 INCENTIVES FOR COMPLETING INTERVIEWS

There were no incentives provided to those individuals who chose to participate in the interview process. This was done to ensure that no selection bias was introduced.

3.13 APPROVAL FOR CONDUCTING STUDY AND OTHER ETHICAL ISSUES

Ethical clearance for conducting this research was obtained prior to commencement of the study from the University of KwaZulu-Natal's Ethical Research Committee.

Thereafter permission was obtained from the St Apollinaris Hospital management.

Once permission from the institution was obtained, all documentation (including the research proposal, questionnaires, and ethical clearance) was forwarded to the Department of Health's Research division, where permission to conduct the research in a public hospital was obtained.

Informed consent was taken from all interviewees before the interviews were commenced. Respondents were informed that this research was for the purpose of completing a dissertation for a Masters in Business Administration. Interviewees were also informed that their names would not be given to any other person or organisation, nor would they be identified in the study. Respondents were informed that the records of the interviews would be securely stored and that they would eventually be destroyed as per university policy at a point in the future.

As this study was privately funded there was no pressure from industry sources to manipulate or adjust the findings of this research.

3.14 PROBLEMS EXPERIENCED

Due to the remote nature of the research site, the recruitment of fieldworks proved to be a problem. This was overcome with the researcher providing accommodation and transport to and from the research site on a daily basis.

Another problem being that due to staff shortages, it wasn't always practical to interview people as was planned. This resulted in the process talking longer than expected to complete.

3.15 CONCLUSION

The assessment of the health care problem at the St Apollinaris Hospital will be a descriptive cross sectional study. Interviewing all people within the defined populations, who are working in different shifts and on different teams will be time consuming, but

will limit possible confounders, effect modifiers, selection and information bias, while providing a large enough sample to make the study meaningful.

Appropriate ethical approval was obtained from the University of Kwa-Zulu Natal's Ethics Committee, the hospital and the Department of Health – KwaZulu-Natal.

The next chapter will deal with the results of the data obtained.

CHAPTER 4

RESULTS OF THE STUDY

4.1 INTRODUCTION

This chapter focuses on the results obtained from the fieldwork that was conducted during the July 2007 period at the St Apollinaris Hospital (SAH).

As there were two interview schedules, one for general employees and one for top managers, an equipment survey and financial statement reviews, the results will be presented in the following manner:

- Data collection methods will be discussed
- Results from the general employee interviews will be presented with regard to the general descriptive statistics.
- Results from the top management interviews will be discussed with regard to the general descriptive statistics
- Possible associations between the general employees and top management will be discussed.
- The results from the equipment survey will be presented
- Financial information will be presented.

4.2 DATA COLLECTION AND ANALYSIS

The study was conducted from the 9th to the 21st July 2007.

All data collected was collated using Microsoft Excel and analyzed using Stata Version 9.0. The data was divided into quantitative and qualitative variables.

The discrete numerical variables were checked for values that fell outside the plausible range and to missing values were identified and excluded from the analysis. The characteristics of this data were investigated by identifying the central location of the data and the data's variability. The central location was identified and described using the arithmetic mean. Measures of variability will be described using the range. Standard deviations and confidence intervals were not used.

The categorical variables were further classified into ordinal, nominal and binary variables which were described by means of frequency, the percentage of responses, and the cumulative frequencies.

The use of categorical data, as opposed to quantitative data, resulted in there being minimal statistical tests that could have been used in this study. However, as the aim of the study was to identify relationships and key areas of which could have been improved, there was no need for extensive statistical testing with a description of percentages and cumulative percentages allowing our aims to be met.

4.2.1 The Sample Population

According to the sampling frame of the duty roster allocation, there are 205 nurses, 14 doctors, 20 administration staff, and 8 top managers who work at the St Apollinaris Hospital. Therefore the population is 247.

This sampling frame did not take into account those persons who were not defined within the study's target population. Therefore, after excluding persons on leave and those not eligible, the sample population consisted of 108 nurses, 13 doctors, 20 administration staff and 8 top managers.

However, it must be noted that the nursing staff were grossly understaffed. This resulted in there being a deviation from the normal work shifts. As a consequence of this

deviation, some nurses who though they were not on leave, were not present for the week of data collection, yet they were "present" on the duty roster.

The responses received are highlighted in Table 4.2.1.

TABLE 4.2.1. THE BREAKDOWN OF THE RESPONSES TO THE STRUCTURED INTERVIEWS IN BOTH THE GENERAL AND TOP MANAGEMENT GROUPS, AT ST APOLLINARIS HOSPITAL, IN JULY 2007.

Work group	Potential number of responses	On leave/away	Actual number of persons present	Number refused	Actual number of responses	Percentage of Total potential respondents
Nurses	108	20	88	15	73	57.0
Doctors	14	1	13	0	13	10.2
Administration	20	0	20	2	18	14.1
Top managers	8	1	7	1	6	4.7
Total	150	22	128	18	110	85.9
Unaccounted						14.1

4.3 THE GENERAL STAFF INTERVIEW

4.3.1 DEMOGRAPHIC STATISTICS

There were 18 males and 86 females who responded to the general questionnaire. The percentages are reflected in the Figure 4.3.1 below.

Figure 4.3.1. Sample segmentation by Gender

□ Male, 17.31, 17%

■ Females, 82.69, 83%

□ Male
■ Females
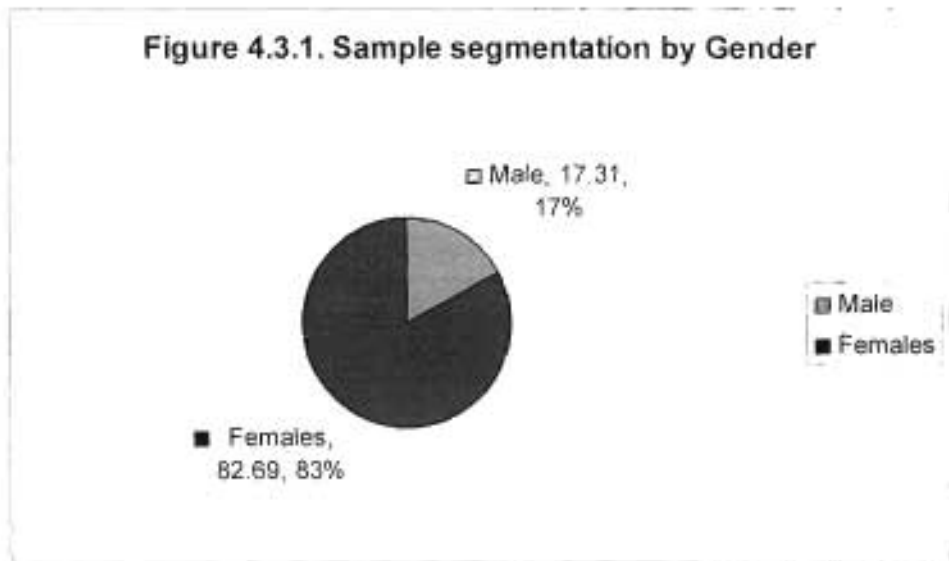
FIGURE 4.3.1. Segmentation of the sample population according to gender at SAH in July 2007.

According to the respective race groups, 91 black people, 12 white and 1 coloured individual responded. There were no Indians. The percentages are given in Figure 4.3.2. below.

Figure 4.3.2 Segmentation of general workers by race

Coloured, 1, 1%

White, 12, 12%

Black, 91, 87%

□ Black
■ White
□ Coloured
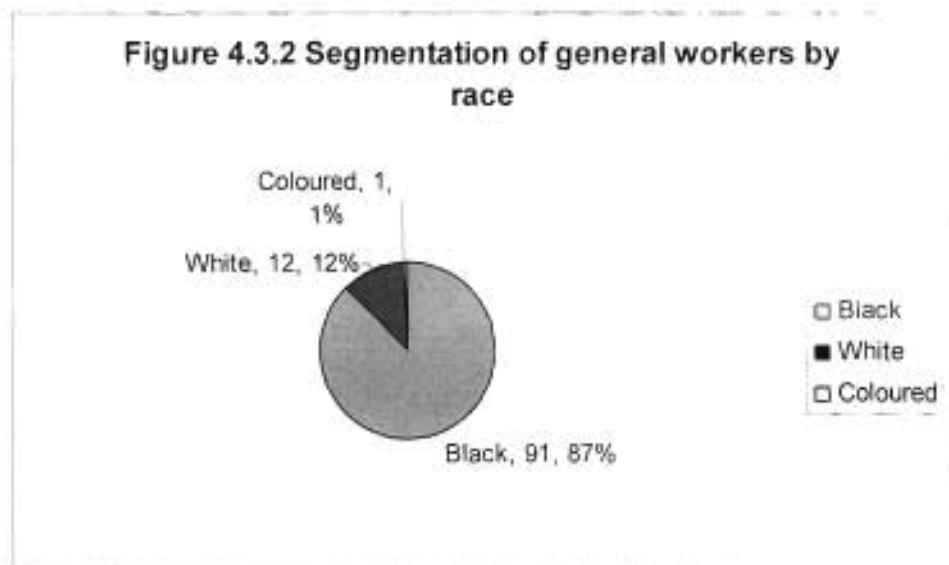
FIGURE 4.3.2. Segmentation of the sample population in terms of gender at SAH in July 2007.

The population can also be described in terms of the different ages. There were a total of 104 respondents amongst the general worker population. Of them, 1 was less than 20, whilst 27 were between 20 and 29 years of age. 52 were between 30 and 39. 19 were between 40 and 49 years of age and 5 were older than 49. The mean age of the general employee respondents was 34.99 years.

TABLE 4.3.1. FREQUENCY OF AGES FOR GENERAL WORKERS AT ST APOLLINARIS HOSPITAL FOR JULY 2007

	No of employees	Percent (%)	Cumulative percentage (%)
Less than 20	1	0.96	0.96
20 to 29	27	25.96	26.92
30 to 39	52	50	76.92
40 to 49	19	18.27	95.19
Greater than 49	5	4.81	100
Total	104	100	

With regard to the academic qualifications of the general staff, it was observed that 32 workers had matriculations only, 52 workers had obtained a diploma and 11 workers had obtained a degree. 4 workers had some post graduate training and 5 workers had not passed their Standard 10 (Grade 12) examinations.

Figure 4.3.3. Educational levels amongst general workers at SAH in July 2007
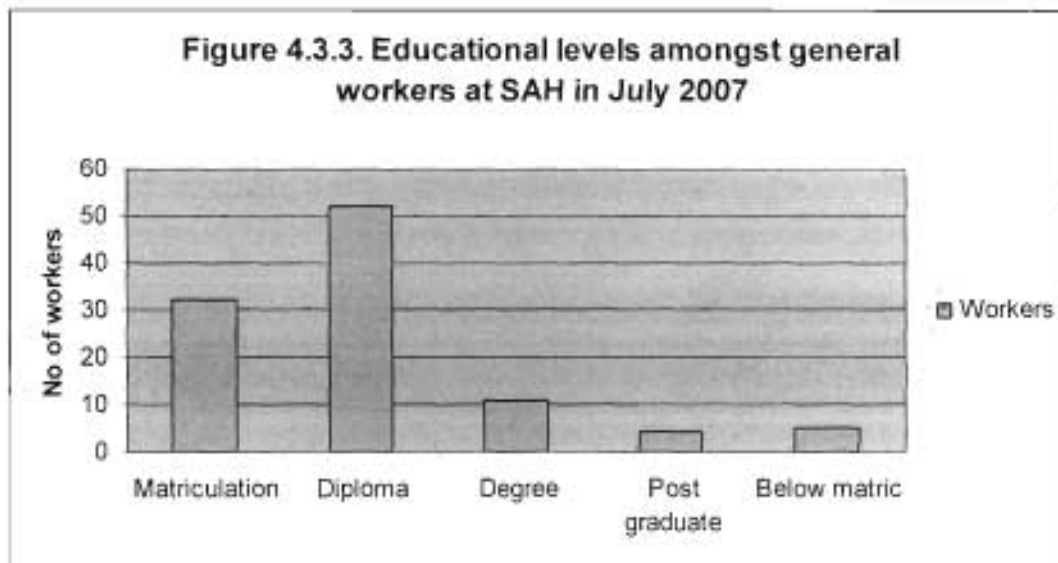
FIGURE 4.3.3. The educational levels of the general workers at St Apollinaris Hospital in July 2007.

The staffing component of the responses can be broken down according to doctors, of whom there were 13, administrative staff which accounted for 18 individuals and nurses of whom there were 73 individuals. Nurses accounted for the largest number of workers at 70 percent, administrative staff had the next highest percentage at 17% and the doctors accounted for 13%. This information is outlined in Figure 4.3.4.

Figure 4.3.4 Breakdown of staff according to Job descriptions at SAH in July 2007
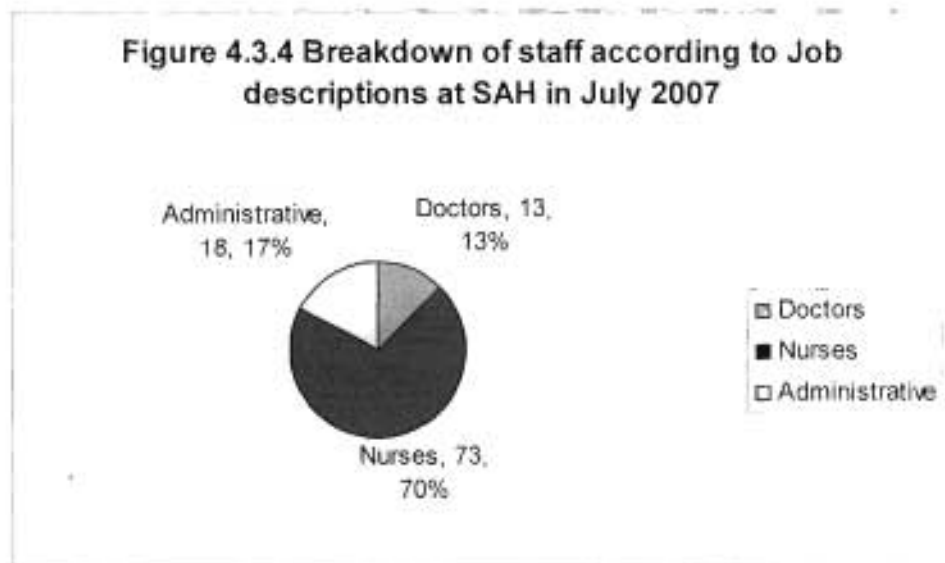
FIGURE 4.3.4. The breakdown of general staff interviewed according to job descriptions at St Apollinaris Hospital in July 2007.

The duration of employment of the general employees can be described by means of a frequency table illustrating that most employees at St Apollinaris Hospital, which is 33% had been employed for a period of less than a year. The median duration of employment was 3 – 5 years. The category with the least number of people, being the one with people who had been employed for 6 - 10 years.

TABLE 4.3.2 DURATION OF EMPLOYMENT OF EMPLOYEES AT ST APOLLINARIS HOSPITAL AS AT JULY 2007.

	No of employees (n)	Percentage (%)	Cumulative percentage
Less than 1 yr	34	32.69	32.69
1-2 yrs	15	14.42	47.12
3-5 yrs	25	24.04	71.15
6-10 yrs	8	7.69	78.85
Greater than 10 yrs	22	21.15	100
Total	104	100	

4.3.2 POSSIBLE REASONS FOR WANTING TO WORK AT ST APOLLINARIS HOSPITAL

Possible reasons for commencing employment at St Apollinaris Hospital include training, community service, promotions, not being able to get a job in the city, the hospital being the first institute to employ a worker and medical reasons. Of the above mentioned reasons, community service and not being able to get a job in the city were the two most cited reasons for accepting a job at the St Apollinaris Hospital. The frequency of these reasons is given in Table 4.3.3.

TABLE 4.3.3. POSSIBLE REASONS FOR COMING TO WORK AT ST APOLLINARIS HOSPITAL IN JULY 2007.

	No of Employees (n)	Percentage (%)	Cumulative Percentage (%)
Training	7	6.73	6.73
Community Service	27	25.96	32.69
Promotion	17	16.35	49.04
No city job	27	25.96	75
Close to home	17	16.35	91.35
Wanted to work in rural community	4	3.85	95.19
First Hospital to employ	4	3.85	99.04
Medical reasons	1	0.96	100
Total	104	100	

4.3.3 GENERAL EMPLOYEE EXPECTATIONS OF ST APOLLINARIS HOSPITAL

With regard to the St Apollinaris Hospital meeting the general employee's expectations with regards to job satisfaction, employment conditions, accommodation, social life and family life, the following was observed in the sample population.

4.3.3.1 JOB SATISFACTION

Nine individuals strongly agreed that they were satisfied with their jobs, 50 individuals agreed that they found their job satisfying, 10 individuals were neutral about their jobs, 16 disagreed and 19 strongly disagreed and thought their jobs were not satisfying. On the average, a cumulative percentage of 57% strongly agreed and agreed that their jobs were satisfying. The results are shown in Table 4.3.4

TABLE 4.3.4. JOB SATISFACTION AMONGST GENERAL EMPLOYEES AT ST APPOLINARIS HOSPITAL IN JULY 2007.

	No of employees (n)	Percentage (%)	Cumulative percentage (%)
Strongly Agree	9	8.65	8.65
Agree	50	48.08	56.73
Neutral	10	9.62	66.35
Disagree	16	15.38	81.73
Strongly Disagree	19	18.27	100
Total	104	100	

When individuals were questioned further with regard to job satisfaction and why it has not met their expectations, 8 individuals said that St Apollinaris offered no career pathing and they would not be able to improve their positions. 2 individuals felt that there was no proper job description at the hospital resulting in them being asked to perform tasks that they were not trained to do. The results are outlined in Table 4.3.5.

TABLE 4.3.5. REASONS FOR JOB DISSATISFACTION AT ST APOLLINARIS HOSPITAL IN JULY 2007.

	No of employees (n)	Percentage (%)	Cumulative percentage (%)
No response	94	90.38	90.38
No career pathing	8	7.69	98.08
No adequate job description	2	1.92	100
Total	104	100	

4.3.3.2 EMPLOYMENT CONDITIONS

6 individuals strongly agreed that their employment conditions met their expectations. 36 individuals agreed that their employment conditions met their expectations. 11 individuals were neutral about their employment conditions, 34 disagreed and 17 strongly disagreed and thought their employment conditions. Cumulative percentages of 51% strongly agreed, agreed and were neutral that their job conditions met their expectations. The results are shown in Table 4.3.6.

TABLE 4.3.6 EXPECTATIONS REGARDING EMPLOYMENT CONDITIONS AT ST APOLINARIS HOSPITAL IN JULY 2007.

	No of employees (n)	Percentage (%)	Cumulative percentage (%)
Strongly Agree	6	5.77	5.77
Agree	36	34.62	40.38
Neutral	11	10.58	50.96
Disagree	34	32.69	83.65
Strongly Disagree	17	16.35	100
Total	104	100	

When asked about reasons for dissatisfaction with regard to employment conditions, 63 individuals had no response, 22 individuals identified shortage of staff and heavy workloads, 4 individuals stated that there were too many patients to care for, 9 individuals said there was inadequate equipment, 1 worker said that the level of protection and hygiene for the employees was inadequate and 1 worker said that there were no proper offices. 1 individual said that there too many patients as well as heavy workloads and a shortage of staff while 3 individuals expressed that there was a combination of a staff shortage, heavy workloads and inadequate equipment. The results are tabulated in Table 4.3.7.

TABLE 4.3.7. POSSIBLE REASONS FOR DISSATISFACTION WITH EMPLOYMENT CONDITIONS AT ST APOLLINARIS HOSPITAL IN JULY 2007.

	No of employees (n)	Percentage (%)	Cumulative percentage (%)
No response	63	60.58	60.58
Shortage of staff/heavy work loads	22	21.15	81.73
Shortage of staff & too many patients	1	0.96	82.69
Shortage of staff & inadequate equipment	3	2.88	85.58
Too many patients	4	3.85	89.42
Inadequate equipment	9	8.65	98.08
Poor hygiene	1	0.96	99.04
No office	1	0.96	100
Total	104	100	

4.3.3.3 ACCOMODATION

One individual strongly agreed that the accommodation at St Apollinaris Hospital met his/her expectations. 18 individuals agreed that they found their accommodation in keeping with their expectations while 13 individuals were neutral about the accommodation. Eight individuals disagreed and 64 strongly disagreed and expressed that the accommodation did not meet their expectations. The largest percentage of 62% strongly disagreed that the accommodation did not meet their expectations. The results are shown in Table 4.3.8.

TABLE 4.3.8. EXPECTATIONS REGARDING THE ACCOMODATION CONDITIONS AT ST APOLLINARIS HOSPITAL IN JULY 2007.

	No of employees (n)	Percentage (%)	Cumulative percentage (%)
Strongly Agree	1	0.96	0.96
Agree	18	17.31	18.27
Neutral	13	12.5	30.77
Disagree	8	7.69	38.46
Strongly Disagree	64	61.54	100
Total	104	100	

Further questioning with regard to dissatisfaction revealed that 64 individuals complained of having to share their living space with other workers. This meant between 3-5 people per room, with there being a lack of privacy. 40 individuals did not respond with any reason for dissatisfaction. Results in this regard are illustrated in Table 4.3.9.

TABLE 4.3.9. POSSIBLE REASONS FOR ACCOMODATION NOT MEETING WORKERS EXPECTATIONS AT ST APOLLINARIS HOSPITAL IN JULY 2007.

	No of employees (n)	Percentage (%)	Cumulative percentage (%)
No response	40	38.46	38.46
Sharing of accommodation	64	61.54	100
Total	104	100	

4.3.3.4 SOCIAL LIFE

With regard to the St Apollinaris Hospital meeting employees' expectations of providing an adequate social life, it was observed that 1 individual strongly agreed that St Apollinaris Hospital met his/her expectations, 32 people agreed, 9 individuals were neutral. 16 individuals disagreed and 46 individuals strongly disagreed that their expectations were not met with regard to social expectations. The results are shown in Table 4.3.10.

TABLE 4.3.10. EXPECTATIONS WITH REGARD TO A SOCIAL LIFE AT ST APOLLINARIS HOSPITAL IN JULY 2007.

	No of employees (n)	Percentage (%)	Cumulative percentage (%)
Strongly Agree	1	0.96	0.96
Agree	32	30.77	31.73
Neutral	9	8.65	40.38
Disagree	16	15.38	55.77
Strongly Disagree	46	44.23	100
Total	104	100	

When questioned further about the reasons for dissatisfaction with regards to a social life, 39 individuals said that it was due to the lack of amenities that they would have had if working in a city. 65 individuals had no response. These results are shown in Table 4.3.11.

TABLE 4.3.11. POSSIBLE REASONS FOR ST APOLLINARIS HOSPITAL NOT MEETING EMPLOYEE'S EXPECTATIONS WITH REGARD TO A SOCIAL LIFE IN JULY 2007.

	No of employees (n)	Percentage (%)	Cumulative percentage (%)
No response	65	62.5	62.5
Lack of amenities	39	37.5	100
Total	104	100	

4.3.3.5 FAMILY LIFE

With regard to the St Apollinaris Hospital meeting employees' expectations of providing an adequate family life, it was observed that 2 individuals strongly agreed that St Apollinaris Hospital met their expectations, 29 people agreed, 15 individuals were neutral. 20 individuals disagreed and 38 individuals strongly disagreed that their expectations were not met with regard to family life. The results are shown in Table 4.3.12.

TABLE 4.3.12. EXPECTATIONS OF GENERAL WORKERS WITH REGARD TO FAMILY LIFE AT ST APOLLINARIS HOSPITAL IN JULY 2007.

	No of employees (n)	Percentage (%)	Cumulative percentage (%)
Strongly Agree	2	1.92	1.92
Agree	29	27.88	29.81
Neutral	15	14.42	44.23
Disagree	20	19.23	63.46
Strongly Disagree	38	36.54	100
Total	104	100	

When questioned further about reasons for dissatisfaction with regards to family life, 33 individuals responded by saying that their families were too far away and that there were no facilities for them to visit if they so wished to do so. 71 individuals did not respond. The results are shown in table 4.3.13.

TABLE 4.3.13. POSSIBLE REASONS FOR ST APOLLINARIS NOT MEETING WORKER'S EXPECTATIONS WITH REGARD TO FAMILY LIFE IN JULY 2007.

	No of employees (n)	Percentage (%)	Cumulative percentage (%)
No response	71	68.27	68.27
Families too far away/ inadequate visiting facilities	33	31.73	100
Total	104	100	

4.3.3.6 OTHER REASONS FOR DISSATISFACTION

There were 7 individuals who cited lack of a rural allowance as a reason of dissatisfaction for working at St Apollinaris, and there were 12 individuals who identified the lack of infrastructure (i.e. lack of shops and poor roads) as a source of discontent.

4.3.4 POSSIBLE PROBLEMS ENCOUNTERED AT ST APOLLINARIS HOSPITAL

The questionnaire attempted to identify possible problems that may exist at the St Apollinaris Hospital. The problems targeted where understaffing, large patient workloads, lack of sufficient training and support, the incompetence of co-workers and lack of accountability. Workers also identified the shortage of equipment, the lack of interpreters for doctors, mixed wards, inadequate medication, poor infrastructure, problems when referring patients to other hospitals and management as other existing problems.

4.3.4.1 UNDERSTAFFING

With regard to understaffing, 82 individuals strongly agreed that understaffing was a problem. 10 individuals agreed. This accounts for a cumulative percentage of 83.6%. 5 individuals were neutral. 7 individuals disagreed and thought that understaffing was not a problem. There were no individuals that strongly disagreed that understaffing was not a problem. The results are illustrated in Figure 4.3.5.

73

Figure 4.3.5 Possible understaffing as a problem at SAH in July 2007
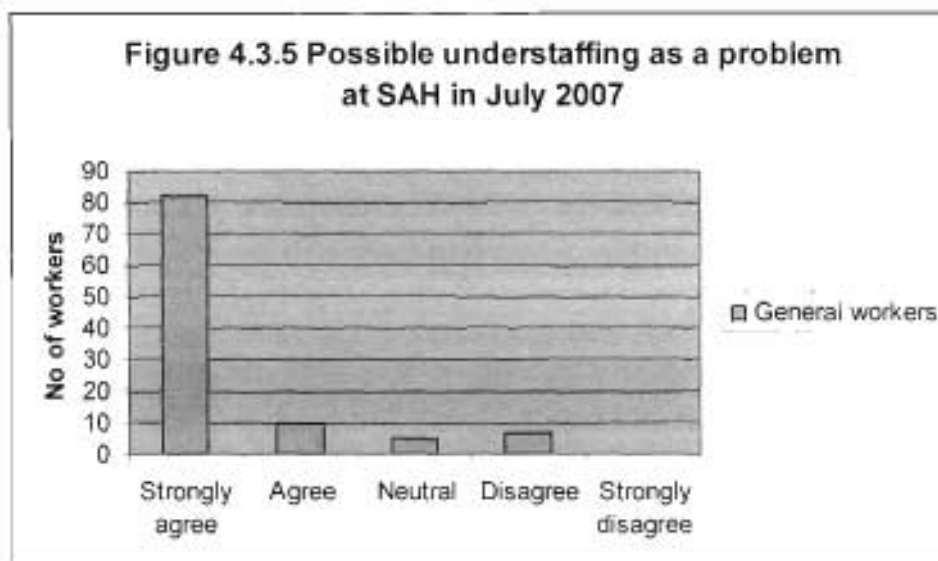
FIGURE 4.3.5. General staff response to the possible problem of understaffing that may exist at St Apollinaris Hospital in July 2007.

In respect of the possible frequency that individuals working at St Apollinaris Hospital experienced understaffing, 53 employees stated that they had experienced understaffing as a problem everyday, 27 employees experienced it more than once a week, 8 employees experienced it every week and five said understaffing presented a problem every two weeks. 11 individuals expressed that this problem occurred every month. No respondent stated that understaffing was not a problem. The results are shown in Figure 4.3.6.

Figure 4.3.6 The frequency of understaffing at SAH in July 2007
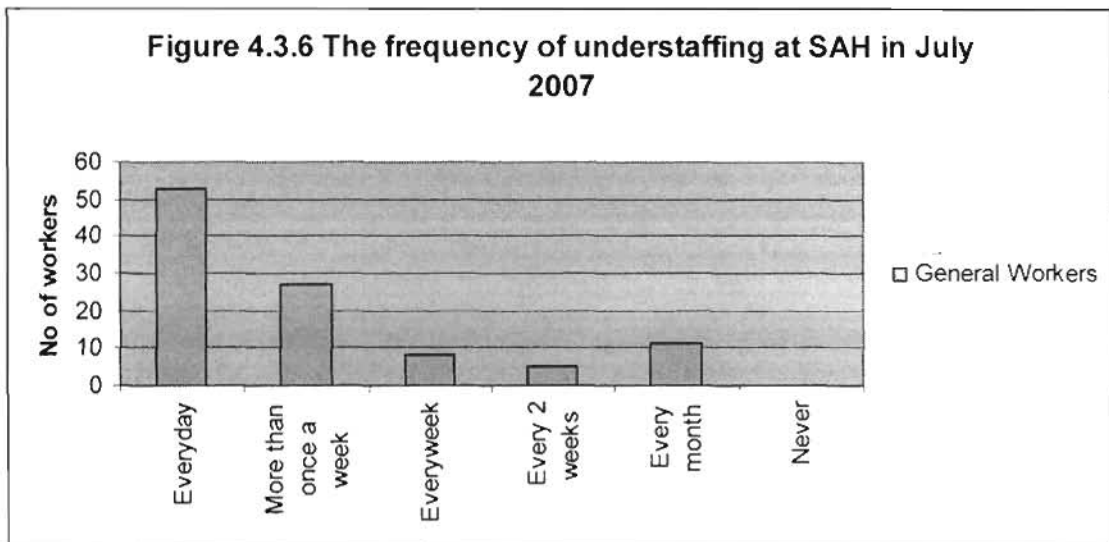
FIGURE 4.3.6. General employees response as to the frequency of understaffing as experienced by themselves

4.3.4.2 LARGE PATIENT WORKLOADS

Another potential problem identified was large patient workloads. 65 individuals strongly agreed, 16 individuals agreed and 12 individuals were neutral about unemployment being a problem. 11 individuals disagreed. There were no individuals who strongly disagreed and there was a non response from one individual. The results are shown in Figure 4.3.7. On analysis of the individuals who disagreed, it was discovered that of the 11 individuals who disagreed, 6 were doctors, 2 were nurses and 3 were administrative staff.

Figure 4.3.7 Large patient workloads as a problem at SAH in July 2007
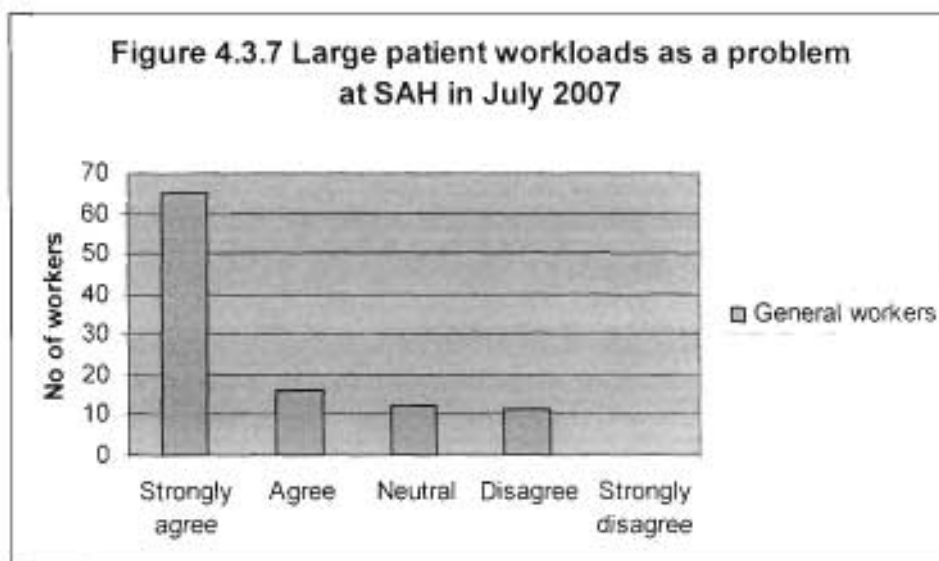
FIGURE 4.3.7. General workers response to large patient workloads being a problem at St Apollinaris Hospital in July 2007.

In response to the frequency with which this problem presents itself, 40 individuals stated that they experienced large patient workloads everyday, 29 individuals experienced it more that once a week. 13 individuals stated they experience large patient workloads every week, 2 individuals stated that it occurred every 2 weeks and 2 individuals said every month. 17 individuals said they never experienced this problem, and 1 interviewee did not respond. The results are illustrated in Figure 4.3.8

Figure 4.3.8 Frequency of large patient workloads as a problem at SAH in July 2007.
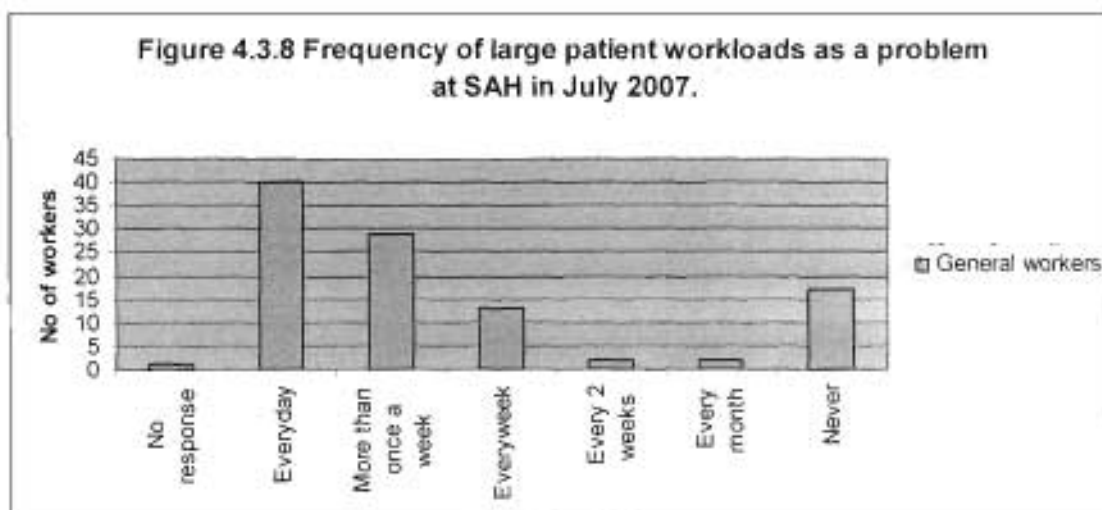
FIGURE 4.3.8. General workers response to the frequency of large patient workloads as experienced by themselves at St Apollinaris Hospital in July 2007

4.3.4.3 LACK OF SUFFICIENT TRAINING AND SUPPORT

Another potential problem identified was the lack of sufficient training and support for staff members. 33 individuals strongly agreed, 38 individuals agreed and 6 individuals were neutral about this problem. 26 individuals disagreed and 1 individual strongly disagreed. Of the27 individuals who strongly agreed or disagreed, 2 were doctors, 21 were nurses and 4 were administrative staff. The results are illustrated in Figure 4.3.9.

Figure 4.3.9 Response to Insufficient training and support as a possible problem at SAH in July 2007
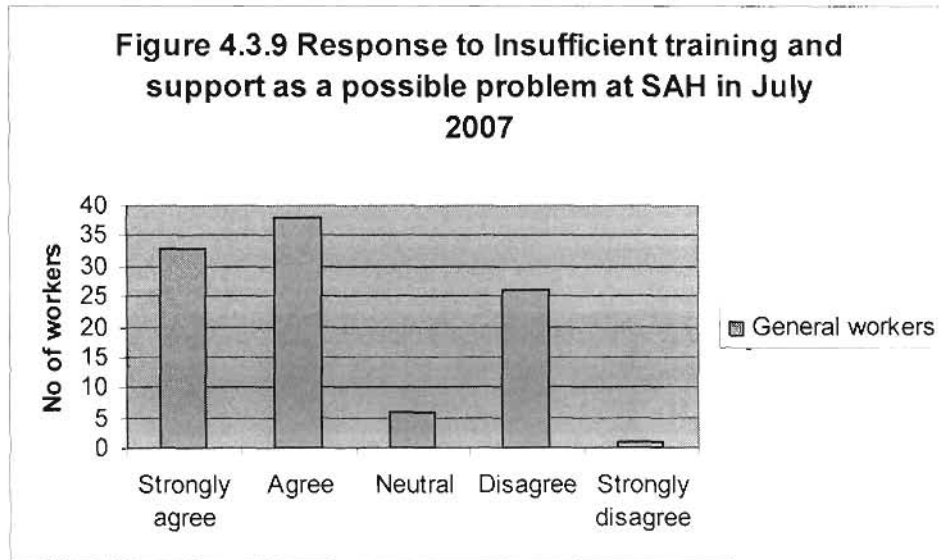
FIGURE 4.3.9. General workers' responses to insufficient training being a potential problem at St Apollinaris Hospital in July 2007

With regard to the frequency with which lack of training presented as a problem: 19 individuals said everyday, 12 individuals stated more than once a week, 9 individuals stated every week, 8 individuals stated every two weeks. 20 individuals stated that the problem presented every month. 35 people stated that the problem never presents itself, and one respondent did not respond. The results are illustrated in Figure 4.3.10.

Figure 4.3.10 Frequency of lack of training and support at SAH in July 2007
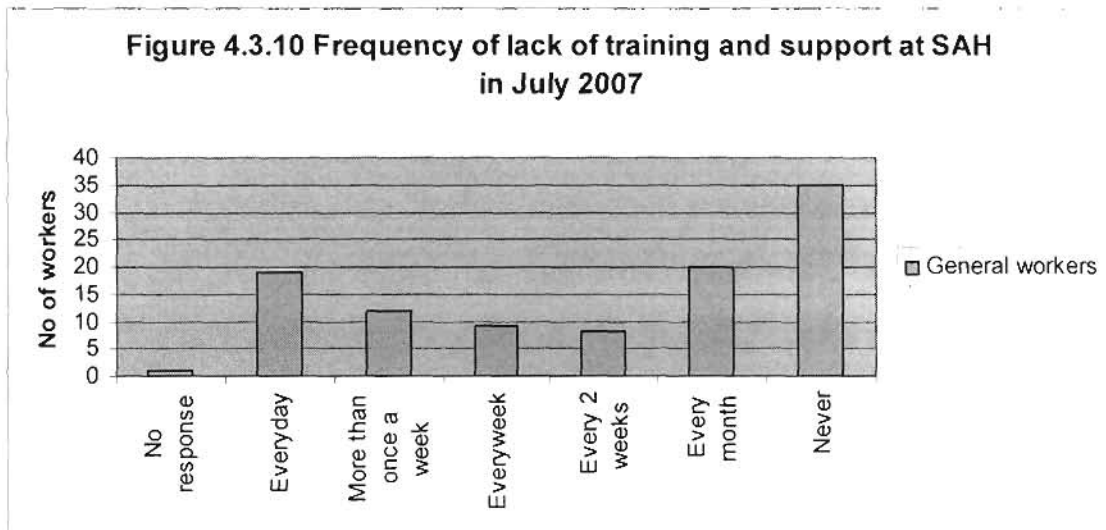
FIGURE 4.3.10. General workers response to the frequency of the lack of training and support as experienced by themselves at St Apollinaris Hospital in July 2007.

4.3.4.3 INCOMPETENCE OF CO-WORKERS

With regard to the incompetence of co-workers as a possible problem: 15 individuals strongly agreed, 31 individuals agreed, 5 were neutral, 47 individuals disagreed and 6 strongly disagreed. Of the 46 individuals who strongly agreed or agreed, 10 were doctors, 30 were nurses and 6 were administration staff. The results are reflected in Figure 4.3.11.

Figure 4.3.11 Incompetence of co-workers as a possible problem at SAH in July 2007
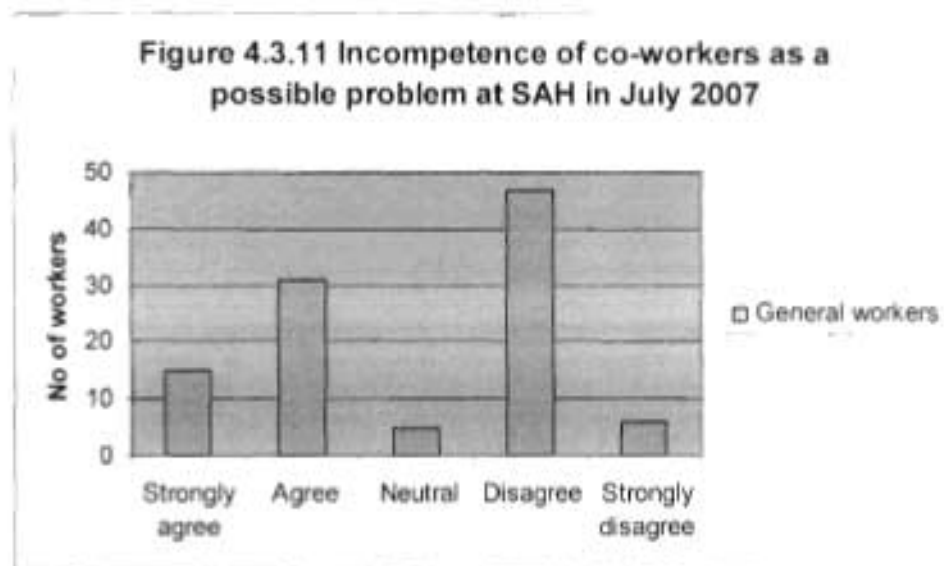
FIGURE 4.3.11. General workers' responses to the possible incompetence of co-workers at St Apollinaris Hospital in July 2007.

With regard to the frequency with which the incompetence of co-workers presented as a problem: 11 employees stated that it occurred everyday, 8 individuals stated it occurred more than once a week, 20 individuals said every week, 3 individuals stated that it occurred every 2 weeks and 7 individuals stated it occurred every month. 54 individuals stated that it never occurred and there was one individual who did not respond to the question. The results are illustrated in Figure 4.3.12.

Figure 4.3.12 Frequency of incompetency of co-workers at SAH in July 2007
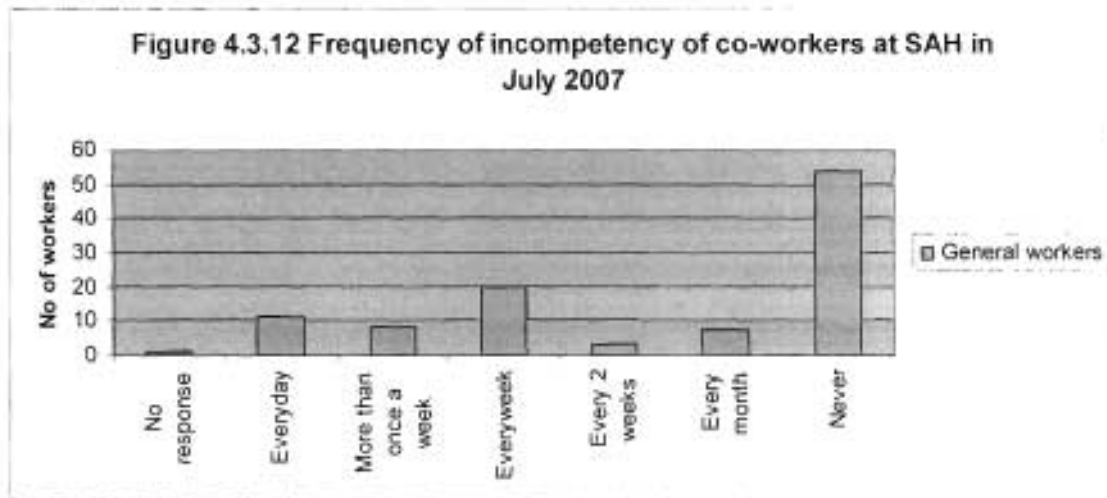
FIGURE 4.3.12. The frequency of the problem of incompetent co-workers, as perceived by the general workers at St Apollinaris Hospital in July 2007.

4.3.4.5 LACK OF ACCOUNTABILITY

The lack of accountability was also identified as a potential problem. 15 employees strongly agreed, 24 employees agreed and 8 individuals were neutral about the lack of accountability being a problem while 50 individuals disagreed and 6 individuals strongly disagreed that the lack of accountability is a problem at St Apollinaris Hospital. One response was misclassified. Review of the raw data did not allow for an appropriate classification/response to be made. The results are shown in Figure 4.3.13. Of those individuals who strongly agreed or agreed that the lack of accountability is a problem, 9 were doctors, 24 were nurses and 6 were administrative staff.

Figure 4.3.13 Lack of accountability as a possible problem at SAH in July 2007
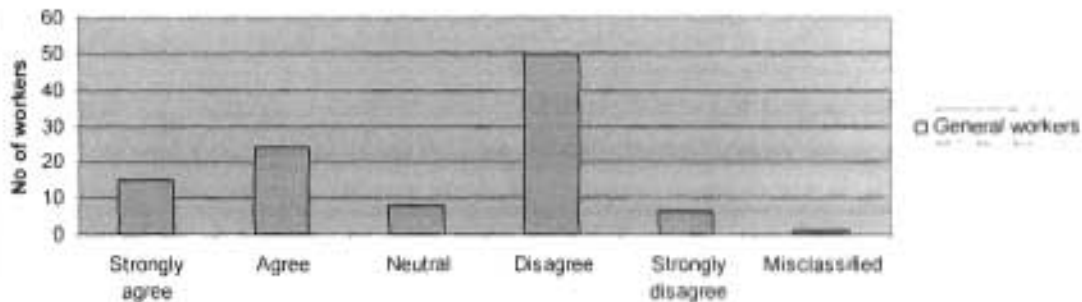
FIGURE 4.3.13. General workers' responses to the lack of accountability being a possible problem at St Apollinaris Hospital in July 2007.

With regard to the frequency with which the lack of accountability could present as a problem: 10 individuals stated that it occurred everyday, 9 individuals stated that it occurred more than once a week, 8 individuals stated that it occurred every week, 6 individuals stated it occurred every two weeks, 8 individuals stated every month and 62 individuals stated that it never occurred. There was 1 individual who did not respond. The results are shown in Figure 4.3.14.

Figure 4.1.14 Frequency of the lack of accountability at SAH in July 2007
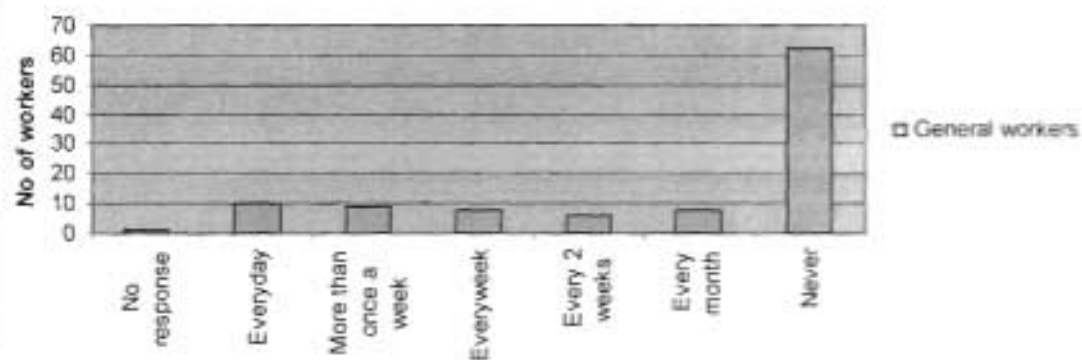
FIGURE 4.3.14. The frequency of lack of accountability of co-workers as perceived by the general workers at St Apollinaris Hospital in July 2007.

There were other problems that were also encountered. Their descriptions, frequencies and the frequency of their occurrences are tabulated in Table 4.3.14.

TABLE 4.3.14. OTHER POTENTIAL PROBLEMS AND THEIR FREQUENCIES ASSOCIATED WITH WORKING AT ST APOLLINARIS HOSPITAL IN JULY 2007.

No.	Potential Problem	Type of response elicited	Frequency of potential problem
1.	The lack of equipment and/or the condition of existing equipment	6 individuals strongly agreed	4 individuals stated it occurred everyday 2 individuals stated it occurred every 2 weeks
2.	The lack of interpreters for doctors/ non Isizulu speaking staff	1 individual agreed	1 individual stated it occurred everyday
3.	The presence of mixed wards for males and females as well as different types of patients	1 individual agreed	1 individual stated it occurred everyday
4.	The poor infrastructure, lack of transport and bad roads in the area	4 individuals strongly agreed	1 individual stated it occurred everyday 2 individuals stated it occurred more than once a week 1 individual stated it occurred every month
5.	Problems when attempting to refer patients to other hospitals	1 individual strongly agreed	1 individual stated it occurred every month
6.	Poor management	1 individual agreed	1 individual stated it occurred everyday

4.3.5 POSSIBLE REASONS AND SOLUTIONS FOR PROBLEMS ENCOUNTERED AT St APOLLINARIS HOSPITAL

In response to the question of management making a meaningful attempt to improve the staffing at St Apollinaris Hospital; 20 individuals strongly agreed, 41 individuals agreed and 7 individuals were neutral about management's attempts to improve staffing. This is a cumulative percentage of 65%. 17 individuals disagreed and 19 individuals strongly disagreed about management making a meaningful attempt to improve the staffing at St Apollinaris Hospital. These results are illustrated in Figure 4.3.15.

Figure 4.3.15 Impression of management's attempt to improve staffing at SAH in July 2007
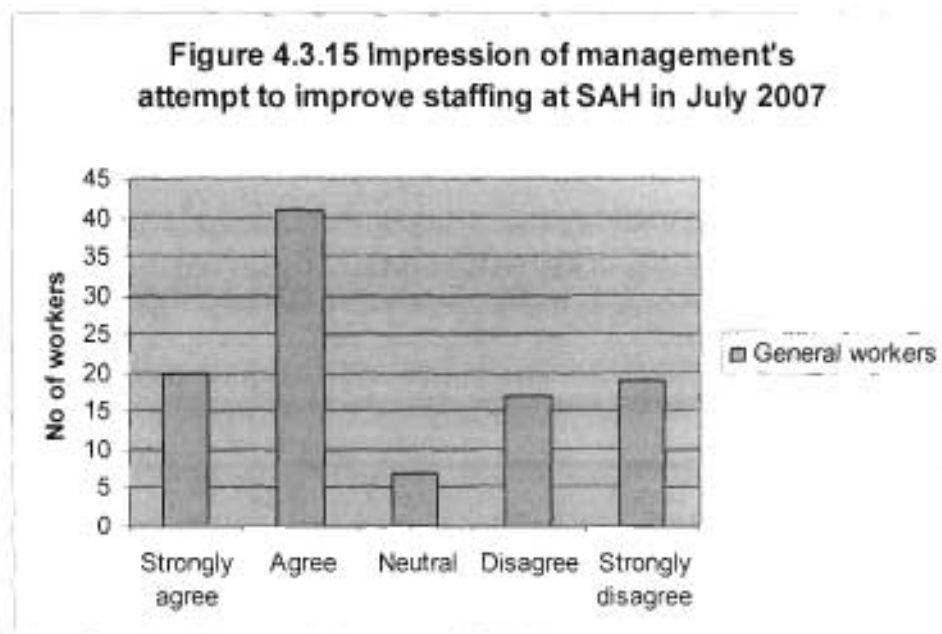
FIGURE 4.3.15. General workers' impressions about management's attempt to improve the staffing at St Apollinaris Hospital in July 2007.

Staff members were also asked if they thought large patient workloads could be better controlled with a more integrated referral pattern and a better use of resources. 2 individuals did not respond, 60 individuals strongly agreed, 30 individuals agreed and 10 individuals were neutral about a referral pattern being able improve patient workloads. 2

individuals disagreed and 2 individuals did not respond to the question. The results and cumulative percentages are reflected in Table 4.3.15.

TABLE 4.3.15 STAFF MEMBERS RESPONSES TO BETTER RESOURCE MANAGEMENT AND INTEGRATED REFERRAL PATTERNS BEING ABLE TO IMPROVE PATIENT WORKLOADS AT ST APOLLINARIS HOSPITAL IN JULY 2007.

	No of employees (n)	Percentage (%)	Cumulative percentage (%)
No response	2	1.92	1.92
Strongly agree	60	57.69231	58.82
Agree	30	28.84615	88.24
Neutral	10	9.615385	98.04
Disagree	2	1.923077	100
Strongly disagree	0	0	
Total	104	100	

General staff workers were asked if the lack of sufficiently trained staff was a consequence of the high staff turnover rates. 41 employees strongly agreed, 39 agreed and 11 were neutral about the high turnover rates resulting in low levels of competence. 12 individuals disagreed and 1 individual strongly disagreed. The results are illustrated in Table 4.3.16.

TABLE 4.3.16. EMPLOYEES' RESPONSE TO THE LACK OF SUFFICIENTLY TRAINED STAFF BEING THE RESULT OF HIGH STAFF TURNOVER AT ST APOLLINARIS HOSPITAL IN JULY 2007.

	No of employees (n)	Percentage (%)	Cumulative percentage (%)
Strongly Agree	41	39.42	39.42
Agree	39	37.5	76.92
Neutral	11	10.58	87.5
Disagree	12	11.54	99.04
Strongly Disagree	1	0.96	100
Total	104	100	

An attempt was made to identify potential groups of workers where there was a lack of accountability. Members of the general employees were asked to identify one or more groups of individuals that they thought displayed a lack of accountability. One individual was able to identify a group that he/she thought was accountable but did not wish to disclose the information. Of the 103 remaining individuals, 16 were not able to identify any of the groups. The results are illustrated in Table 4.3.17.

TABLE 4.3.17. POSSIBLE LACK OF ACCOUNTABILITY AMONGST WORK GROUPS AT ST APOLLINARIS HOSPITAL IN JULY 2007.

	No of employees (n)	Percentage (%)	Cumulative percentage (%)
A few doctors	12	11.65	11.65
A few doctors and a few nurses	4	3.88	15.53
A few doctors and most of the nurses	1	0.97	16.5
A few doctors and a few members of management	4	3.88	20.39
A few doctors and most members of management	1	0.97	21.36
Most of the doctors	1	0.97	22.33
Most of the doctors and a few nurses	1	0.97	23.3
Most doctors and most of the nurses	1	0.97	24.27
Most of the doctors and a few members of the management	1	0.97	25.24
Most of the doctors and most members of management	1	0.97	26.21
A few nurses	3	2.91	29.13
A few nurses and most members of management	1	0.97	30.1
A few members of management	20	19.42	49.51
Most members of management	13	12.62	62.14
None of the groups	16	15.53	77.67
A few doctors, a few nurses and a few members of management	13	12.62	90.29
A few doctors, a few nurses and most members of management	6	5.83	96.12
Most of the doctors, most of the nurses and most members of management	1	0.97	97.09
Most of the doctors, a few of the nurses and most of the members of management	1	0.97	98.06
A few doctors, most of the nurses and most of the members of management	2	1.94	100
Total	103	100	

Members of the general staff were asked to if they were able to identify members of the staff who they would identify as not being accountable. 28 individuals were not able to or did not wish to reveal a particular group that they believed were responsible for a lack of accountability. There were 4 individuals who did not wish to respond to the question. 17 individuals identified foreign/new doctors while 47 individuals have identified that top management as having a lack of accountability. The other groups identified were assistant nursing managers, night staff and individuals coming to St Apollinaris Hospital for career pathing only. Some general employees chose a combination of the above mentioned groups. The results are illustrated in Table 4.3.18.

TABLE 4.3.18. POSSIBLE GROUPS THAT MAY BE RESPONSIBLE FOR THE LACK OF ACCOUNTABILITY AT ST APOLLINARIS HOSPITAL IN JULY 2007.

	No of employees (n)	Percentage (%)	Cumulative percentage (%)
None identified	28	28	28
Foreign/new doctors	17	17	45
Top Management	47	47	92
Assistant nursing managers	2	2	94
Night staff	1	1	95
Foreign/new doctors and nurses coming to SAH for career pathing	1	1	96
Foreign/new doctors and assistant nursing managers	1	1	97
Foreign/new doctors and top management	3	3	100
Total	100	100	

4.3.6 REASONS OR POSSIBLE METHODS OF RETAINING STAFF AT ST APOLLINARIS HOSPITAL

Part of the structured interview attempted to identify reasons for people continuing to work at St Apollinaris Hospital.

General employees were asked if they had given thought to resigning from working at St Apollinaris Hospital. 61 employees said that they had thought about resigning while 43 had stated that they had not thought about resigning. The results are illustrated in Figure 4.3.16.

Figure 4.3.16 General workers responses to considering resigning from SAH in July 2007
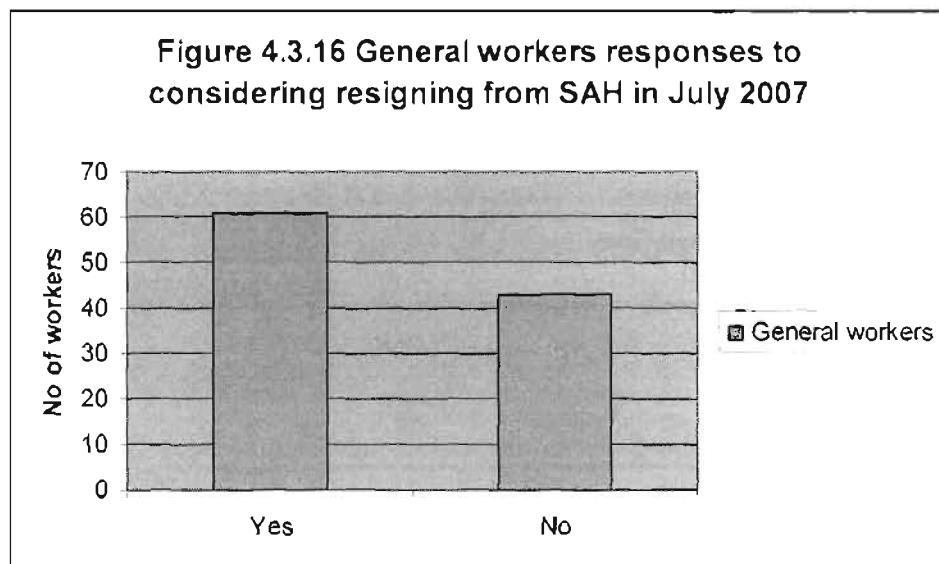
FIGURE 4.3.16. Responses to whether or not general workers had considered resigning from working at St Apollinaris Hospital in July 2007.

If individuals had expressed that they had thought about leaving St Apollinaris Hospital, they were asked why they had chosen to remain. 61 people were questioned. 15 employees stated that they were waiting for other job opportunities, 20 employees stated that they had attempted finding other jobs but were unsuccessful thus far. 14 individuals said that they had remained at St Apollinaris Hospital as it is close to home. 4 individual were not able to identify why they had remained at St Apollinaris Hospital. 2 individuals said that management was able to address the problems that they had faced. 3 individuals

stated that they remained as they found the job satisfying, while 2 individuals said that they remained as they wished to help people in the community. 1 person stated that they remained simply as they had a contract to fulfil. The results are illustrated in Table 4.3.19.

TABLE 4.3.19. GENERAL WORKER'S REASONS FOR REMAINING AT ST APOLLINARIS HOSPITAL IN JULY 2007

	No of employees (n)	Percentage (%)	Cumulative percentage (%)
No response	43	41.35	41.35
Waiting for another job	15	14.42	55.77
No other jobs available	20	19.23	75
Close to home	14	13.46	88.46
Do not know	4	3.85	92.31
Problems addressed	2	1.92	94.23
Job satisfaction	3	2.88	97.12
Wanted to help patients	2	1.92	99.04
On contract	1	0.96	100
Total	104	100	

General employees were questioned about them remaining at St Apollinaris if given a choice to leave. 34 individuals said that they would remain working at St Apollinaris while 69 individuals stated that they would not remain. 1 individual did not respond. The results are shown in Figure 4.3.17.

Figure 4.3.17 General Employees response to wanting to remain at SAH in July 2007
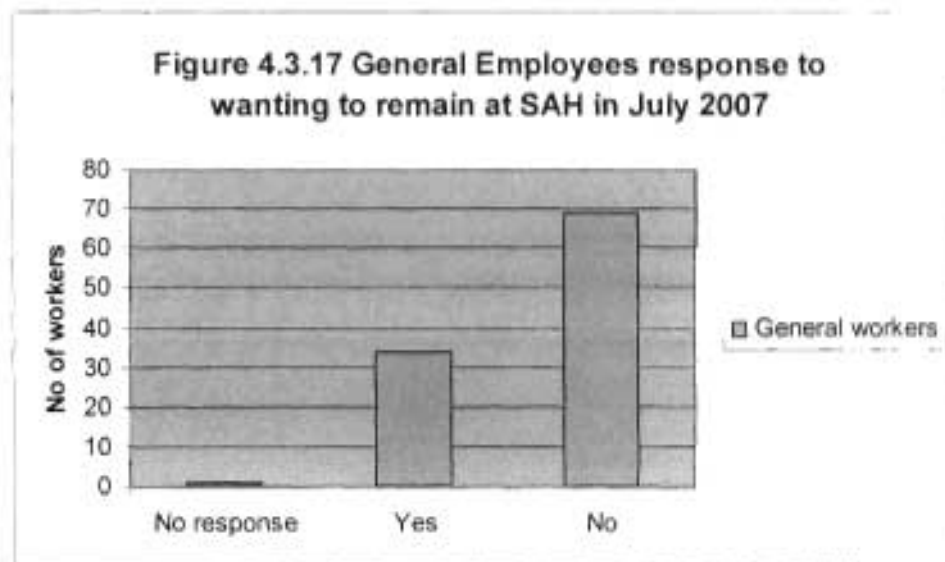
FIGURE 4.3.17. The responses of general workers when given a choice about remaining at St Apollinaris Hospital in July 2007.

General workers were asked if they thought incentives could be used to attract more employees to St Apollinaris Hospital. 83 individuals strongly agreed, 13 individuals agreed and 4 individuals were neutral. The sum of individuals who agreed and strongly agreed was 92.31 %. 3 individuals disagreed and 1 individual strongly disagreed. The results are illustrated in Figure 4.3.18.

Figure 4.3.18 General employees impression about incentives being able to attract workers to SAH in July 2007
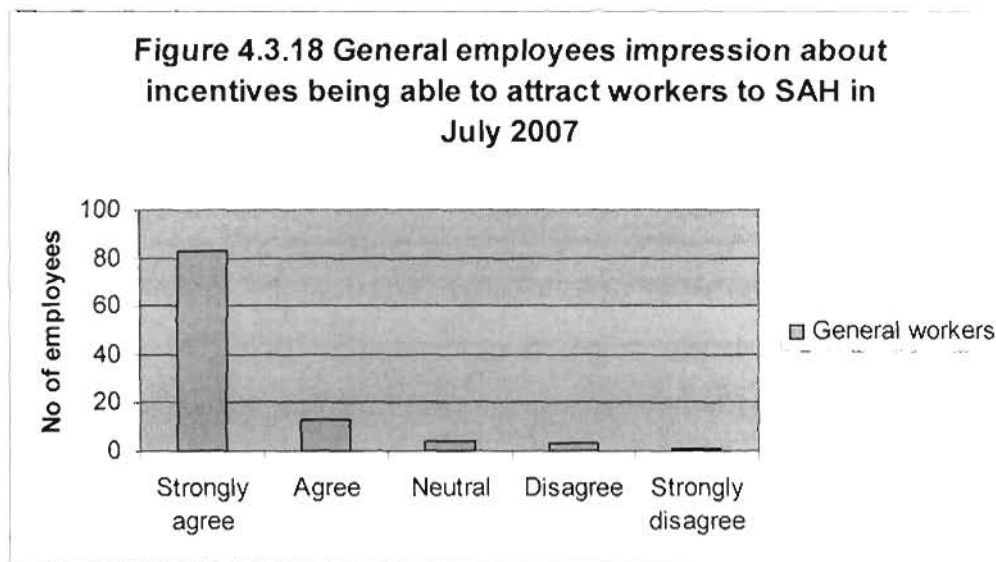
FIGURE 4.3.18. General employees' impressions about incentives being able to attract more workers to St Apollinaris Hospital in July 2007.

General employees were asked to identify incentives that they would have considered to be suitable in attracting more workers to St Apollinaris Hospital. As more than one item could have been identified, the results have been tabulated in Table 4.3.20 and no cumulative percentages are expressed. The most commonly identified incentives were adequate accommodation, better monetary compensation with full rural allowance and better infrastructure of the surrounding area.

TABLE 4.3.20. POSSIBLE INCENTIVES FOR RETAINING STAFF AT ST APOLLINARIS HOSPITAL IN JULY 2007.

No.	Incentive Identified	Frequency of responses
1.	Adequate accommodation	65
2.	Better monetary compensation/Full rural allowance	71
3.	More effective management/Change in management and its attitudes	7
4.	Better Staffing of the Hospital	3
5.	Career pathing and more effective training	12
6.	Better infrastructure of the surrounding area	27

4.3.7 POSSIBLE EQUIPMENT PROBLEMS THAT MAY EXIST AT St APOLLINARIS HOSPITAL

The general employees of St Apollinaris Hospital were asked questions about the equipment levels in St Apollinaris Hospital in an attempt to quantify potential areas of concern with regard to the equipment and shortage thereof.

Employees were asked if they experienced that the hospital was frequently out of essential items and equipment. 35 employees strongly agreed, 49 employees agreed and 3 employees were neutral. The cumulative percentage of those individuals who agreed and strongly agreed is 81%. There were 17 individuals who disagreed. No individuals strongly disagreed in response to the question. The results are illustrated in Figure 4.3.19.

93

Figure 4.3.19 General employees response to
SAH being out of stock of equipment/medication
in July 2007
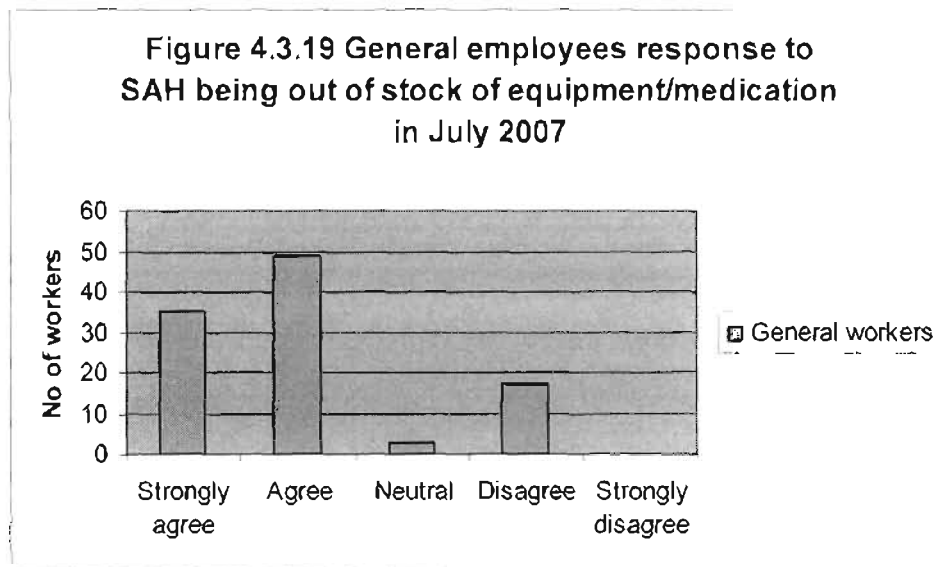
FIGURE 4.3.19. The responses of general employees with regard to St Apollinaris Hospital being out of stock of essential equipment and drugs in July 2007.

General employees were asking if they found that the equipment that was present at St Apollinaris was often not working. 58 employees strongly agreed, and 35 employees agreed that equipment was often not working at St Apollinaris Hospital. Those individuals who strongly agreed and agreed accounted for a cumulative percentage of 89%. 3 individuals were neutral, 7 individuals disagreed and 1 individual strongly disagreed. The results are illustrated in Figure 4.3.20.

Figure 4.3.20. General employees opinion about the condition of Equipment at SAH in July 2007
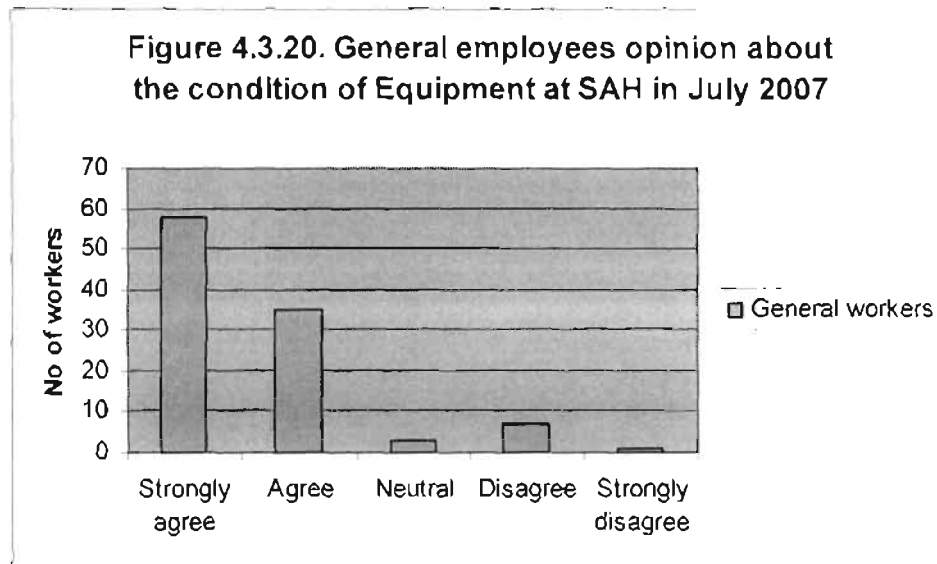
FIGURE 4.3.20. General workers' responses whether or not present equipment was in good working order at St Apollinaris Hospital in July 2007.

General employees were asked how often they found themselves complaining about the lack of or condition of equipment at St Apollinaris Hospital. 29 employees stated that they complained everyday, 28 employees complained more than once a week, 27 employees complained once a week, 16 employees complained more than once a month. 4 employees stated that they never complained. The cumulative percentage of those employees who complained about equipment at least once a month was 81%. The results are illustrated in Figure 4.3.21.

Figure 4.3.21 Compliants with regard to the lack or condition of equipment at SAH in July 2007

Bar chart with y-axis labelled "No of workers" ranging from 0 to 35. Categories on x-axis: Everyday, More than once a week, Once a week, More than once a month, Never. Legend: General workers.
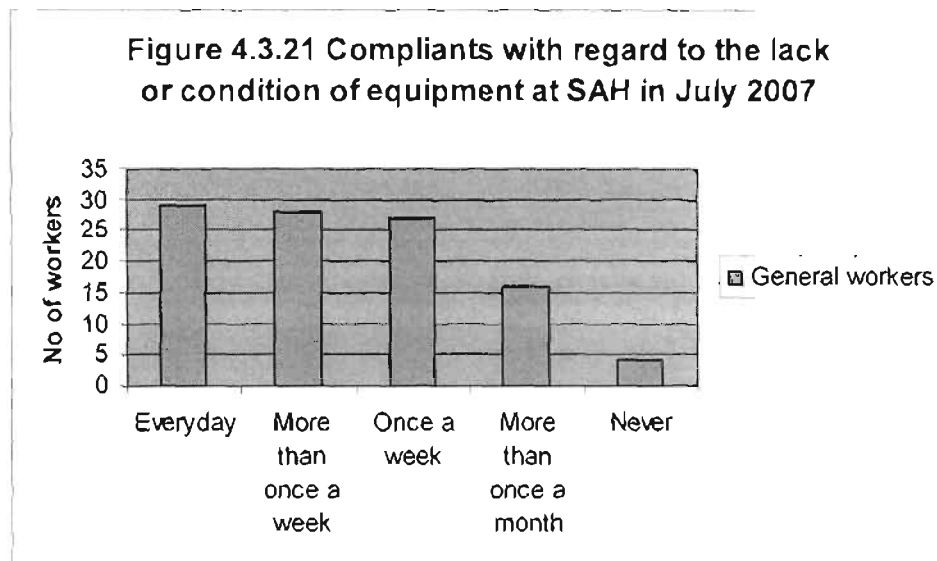
FIGURE 4.3.21. General workers' perceptions about the frequency of complaints with regard to the poor condition or lack of equipment at St Apollinaris Hospital in July 2007.

Employees were asked if they could identify a specific department in the hospital that, in their opinion, was constantly suboptimal. 66 individuals stated that they could, while 38 individuals stated that they could not identify specific departments where there was a constant equipment shortage. The results are illustrated in Figure 4.3.22.

Figure 4.3.22 General employees being able to identify under-equipped departments at SAH in July 2007
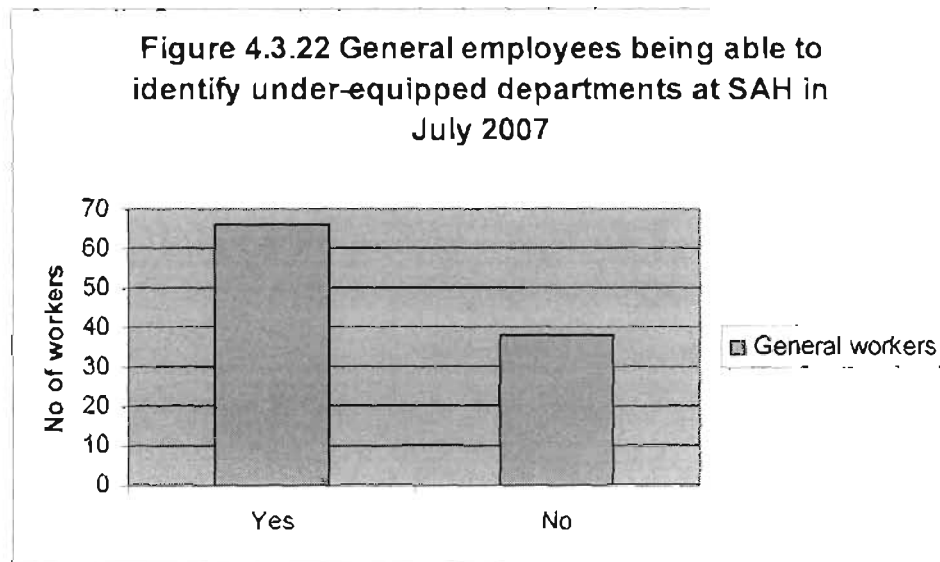
FIGURE 4.3.22. Responses to the question where general employees were asked if they were able to identify wards that were under-equipped at St Apollinaris Hospital in July 2007.

Those employees who stated that they were able to identify a specific department were asked which department or departments they thought were under-equipped. Some employees identified more than one department where they thought equipment was suboptimal. As individuals highlighted more than one ward, only the frequency of responses is illustrated. The results are illustrated in Table 4.3.21.

TABLE 4.3.21 GENERAL EMPLOYEES' RESPONSE TO THE WARDS/DEPARTMENTS THAT MAY BE UNDER-EQUIPPED AT ST APOLLINARIS HOSPITAL IN JULY 2007.

No.	Ward/Department Identified	Frequency of responses
1	Out-patients department	12
2	Ward 9&10	8
3	Children's ward	6
4	Ward 1&2	7
5	Maternity	6
6	Ward 7	13
7	Theatre	1
8	All the wards	16
9	X-ray	2
10	Linen department	1
11	Stores	1
12	Laboratory/pharmacy	2
13	Human resources	3

General employees were asked if recurrent equipment shortage had resulted in them feeling frustrated at work. 82 employees strongly agreed, 12 employees agreed. This accounts for a cumulative percentage of 90%. 4 individuals were neutral, while 5 individuals disagreed and 1 individual strongly disagreed. The results are illustrated in Figure 4.3.23.

Figure 4.3.23 General employee response to being frustrated at equipment shortages at SAH in July 2007
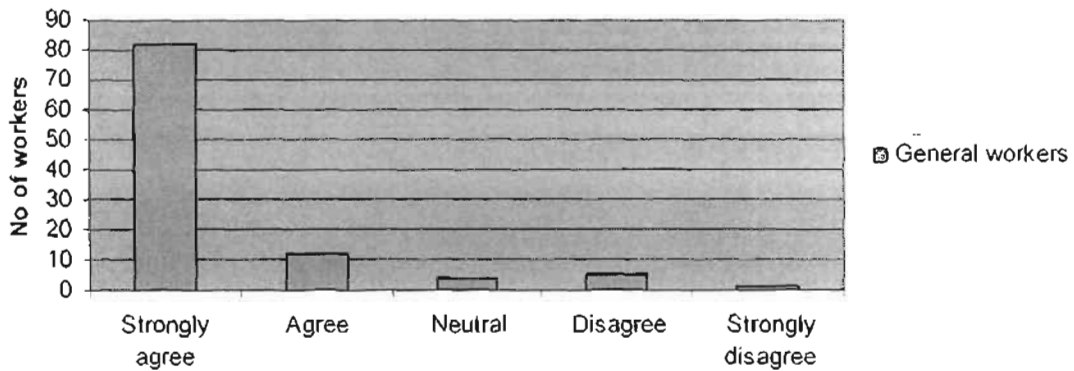
FIGURE 4.3.23. Frustration caused by equipment shortages at St Apollinaris Hospital in July 2007.

General employees were also asked if, in their opinions, the levels of equipment shortage resulted in compromised patient care. 76 individuals strongly agreed and 15 individuals agreed. These individuals who have agreed and strongly agreed had an 85% cumulative percentage. 6 individuals were neutral, 5 individuals disagreed and 2 individuals strongly disagreed. The results are illustrated in Figure 4.3.24.

Figure 4.3.24 General employee opinions about equipment levels resulting in compromised patient care
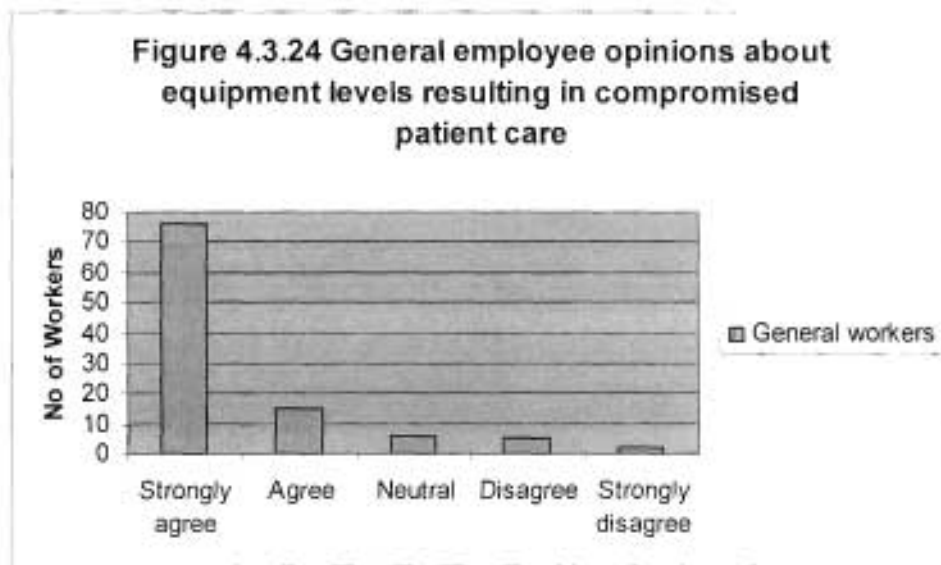
FIGURE 4.3.24. General worker opinions about decreased levels of essential equipment resulting in compromised patient care at St Apollinaris Hospital in July 2007.

4.3.8 GENERAL EMPLOYEES RESPONSE TO QUESTIONS ABOUT MANAGEMENT

General employees were questioned as to their opinions about management understanding the problems of employees working at the ground level. 13 employees strongly agreed and 41 employees agreed that management did understand the problems that were faced by employees. 3 employees were neutral. 18 employees disagreed and 29 employees strongly disagreed. When looking at the cumulative percentages we see that 51.92% agreed while 45.19% disagreed. The results are illustrated in Figure 4.3.25.

Figure 4.3.25 General employee responses to management understanding the problems they face at SAH in July 2007
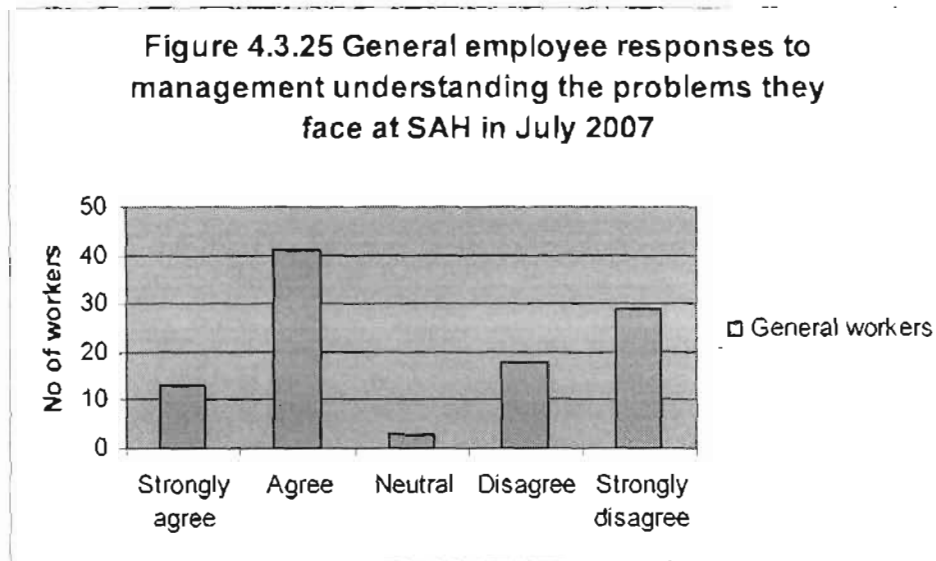
FIGURE 4.3.25. Responses of general employees with regard to management understanding the problems faced at ground level, by themselves at St Apollinaris Hospital in July 2007.

General employees were asked to identify what they would change about St Apollinaris Hospital if given a chance. The answers included accommodation and better infrastructure of the hospital and surrounding areas, management, more monetary compensation, better/working equipment, more staff and better training and a more comprehensive budget. The results are illustrated in Table 4.3.22.

**TABLE 4.3.22. POSSIBLE CHANGES THAT GENERAL EMPLOYEES'
WOULD MAKE AT ST APOLLINARIS HOSPITAL IN JULY 2007.**

No.	Change Identified	Frequency of responses
1.	Accommodation and better infrastructure	72
2.	Management	22
3.	More monetary compensation	12
4.	Equipment	36
5.	More staff	22
6.	More training of staff	9
7.	More comprehensive budget	2

4.4 THE TOP MANAGEMENT INTERVIEW

There were 8 individuals identified as top managers in Chapter 3. Of these 8 individuals, one member was on leave and one member refused to participate in the study. The sample size is therefore 6 members. The descriptive data and responses are as follows:

4.4.1 DEMOGRAPHIC DATA

There were three females and three males who responded to the questionnaire. Of these participants, all of them were of African origin with a mean age of 42 years. The age distribution of the top managers is illustrated in Figure 4.4.1.

Figure 4.4.1. Age distribution of top managers at SAH in July 2007
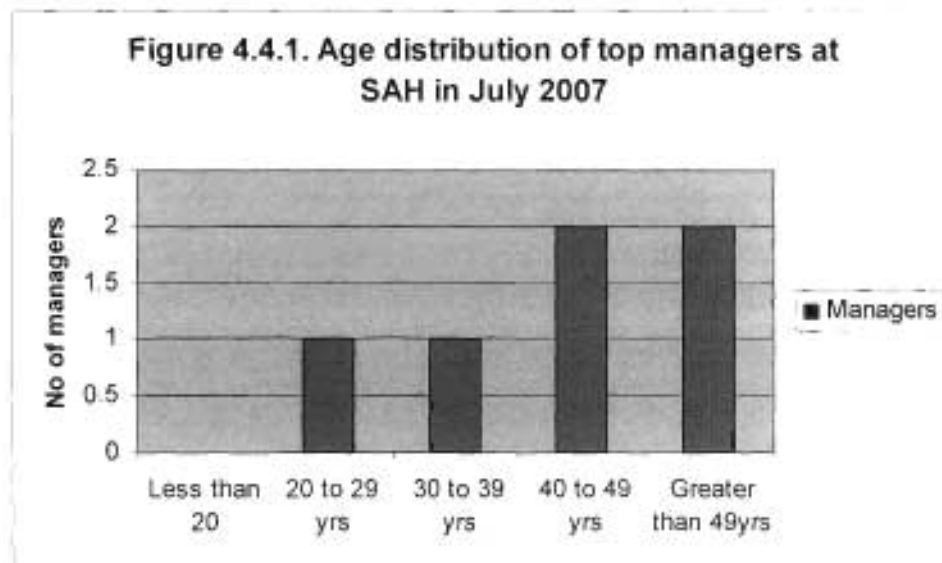
FIGURE 4.4.1. Age distribution of top managers at St Apollinaris Hospital in July 2007.

The respondents were from the categories of hospital manager, nursing manager, financial manager, systems manager, stores manager and public relations manager. Of these respondents, the range number of years in managerial experience was 1 to 9 years with a mean of 3.88. The median number of years in a management position was 3 and the mode was 1 year.

Managers were asked about the experience or formal training they had received with regard to the specific area they were expected to manage. 1 individual had a diploma, 2 individuals had a degree, 1 individual had post graduate training and 2 individuals had attended government courses. The results are illustrated in Figure 4.4.2.

Figure 4.4.2 Educational levels amongst top managers
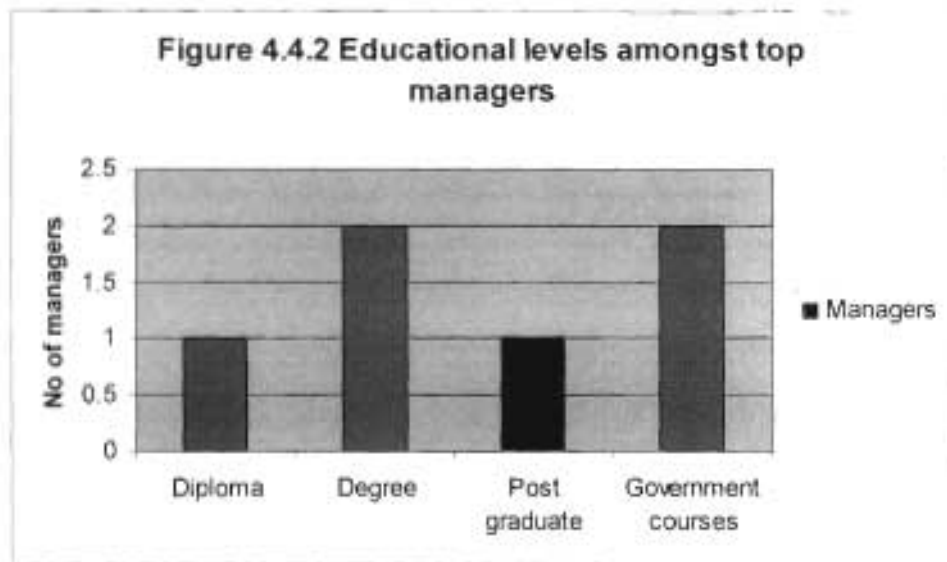
FIGURE 4.4.2. Educational levels of top managers at St Apollinaris Hospital in July 2007.

Top managers were questioned with regard to the formal managerial training that they had gained. The responses were that 1 individual had none, 1 individual had a diploma, 1 individual had a degree and 1 individual had post graduate training. 2 individuals had attended government courses. The results are illustrated in Figure 4.4.3.

Figure 4.4.3. Formal managerial training amongst top managers at SAH in July 2007
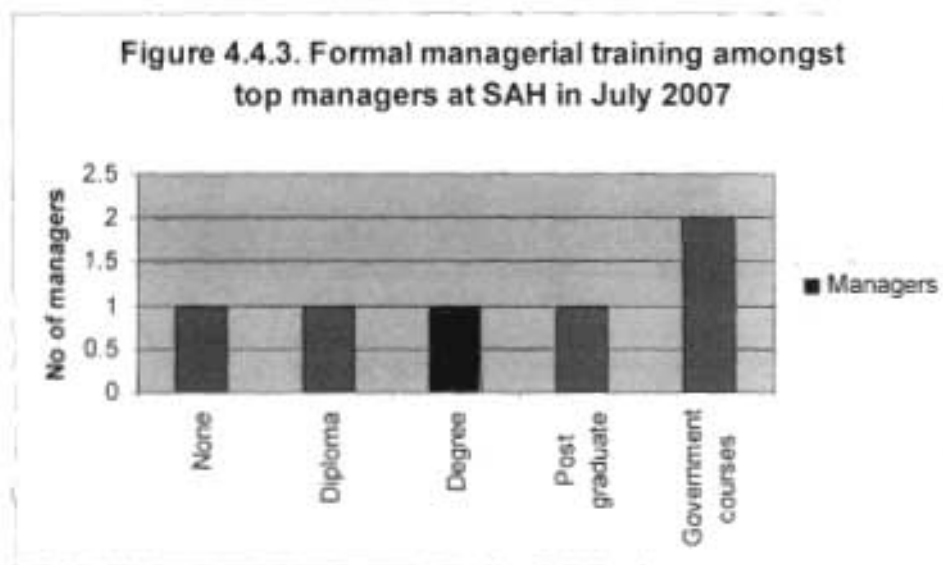
FIGURE 4.4.3. Formal managerial training received by top managers at St Apollinaris Hospital in July 2007

Top managers were asked about the reasons for accepting a job at the St Apollinaris Hospital. 1 individual stated that there were no other jobs available to him/her. 1 individual stated that they had accepted the job as it was close to home or part of community service. 3 individuals stated that the reason for accepting the job was as part of career pathing and 1 individual stated that they had accepted the job as they wished to help the community. The results are illustrated in Figure 4.4.4.

Figure 4.4.4. Top managers' reasons for working at SAH in July 2007
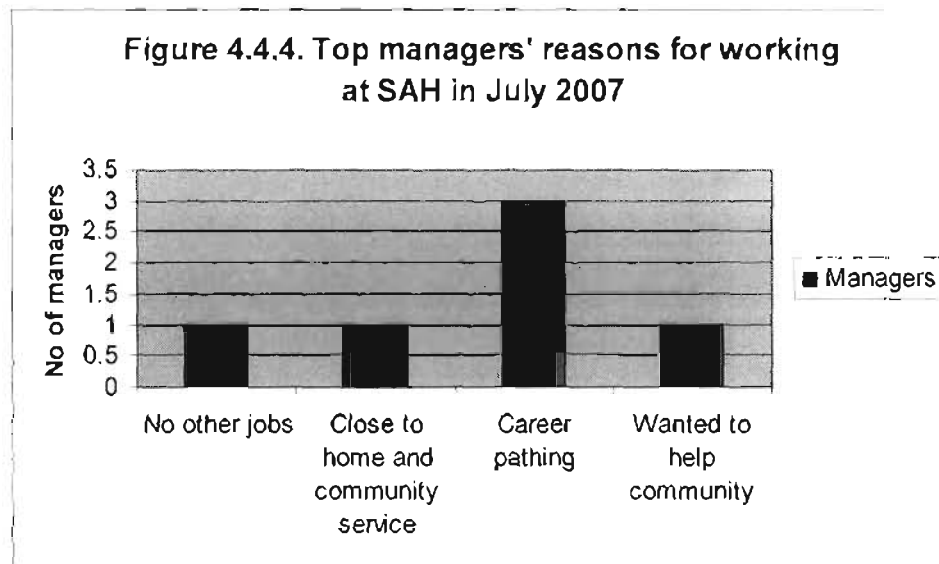
FIGURE 4.4.4 Reasons for top managers wanting to work at St Apollinaris Hospital in July 2007.

4.4.2 PROGRAMMES IMPLEMENTED BY TOP MANAGEMENT

Top managers were asked about programmes that they had implemented at St Apollinaris, and while there are many that have been started, only two members of management began programmes due to their own initiatives. Other members of management had begun programmes that had been part of a government directive.

With regard to the sustainability of the programmes that have been implemented, members of the top management where asked how many of these programmes are still in

105

operation. One individual stated that none of the programmes were still in operation. The other members of management stated that all the programmes were still running and were successful.

4.4.3 PROBLEMS RECOGNISED BY TOP MANAGEMENT

Members of top management were asked about how often they had received complaints or grievances from the employees working under them. One manager stated that they had received complaints everyday, while one manager stated that complaints were received every six months. Two managers stated that they received complaints once a month and two mangers said this occurred every three months. The top managers acknowledged that there was no instance in which no complaints were ever received. The complaints did not have a frequency of once every 6 months as well. The results are illustrated in Figure 4.4.5.

Figure 4.4.5 Frequency of grievances recieved by top managers
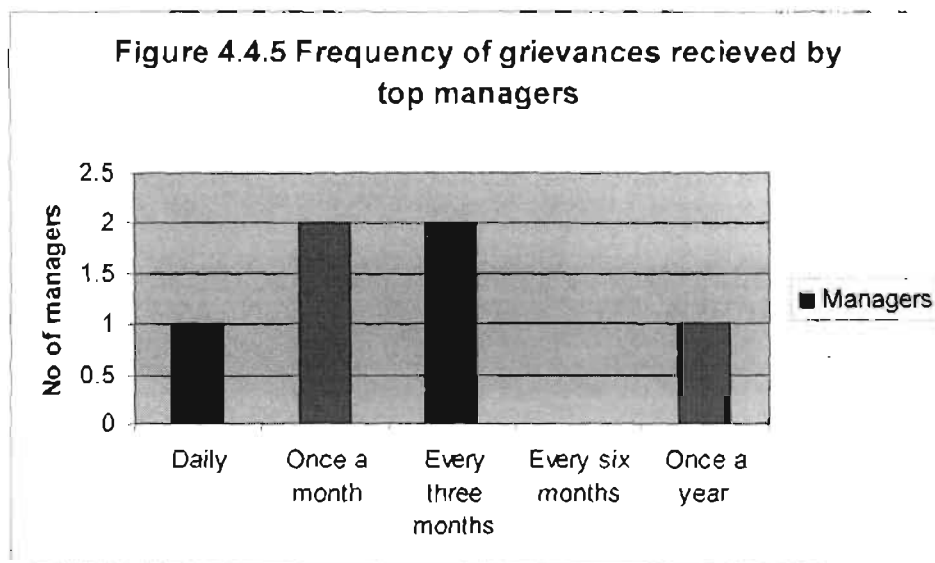
FIGURE 4.4.5. Frequency of grievances received by top managers at St Apollinaris Hospital in July 2007.

Top managers were further questioned about the possible issues around which the grievances that they had received were centred around. The issues questioned about were understaffing, large patient workloads, lack of sufficient training and support, and the incompetence of workers, lack of accountability and accommodation and infrastructure of the area. The following responses were received:

With regards to understaffing, managers were asked about the frequency of which they had received complaints. 2 managers stated that they had received complaints daily, 1 manager stated weekly, 2 managers stated monthly and 1 manager stated never. The one manager who said that they had never received complaints about understaffing dealt with a purely administrative department with no clinical duties. The results are shown in Figure 4.4.6.
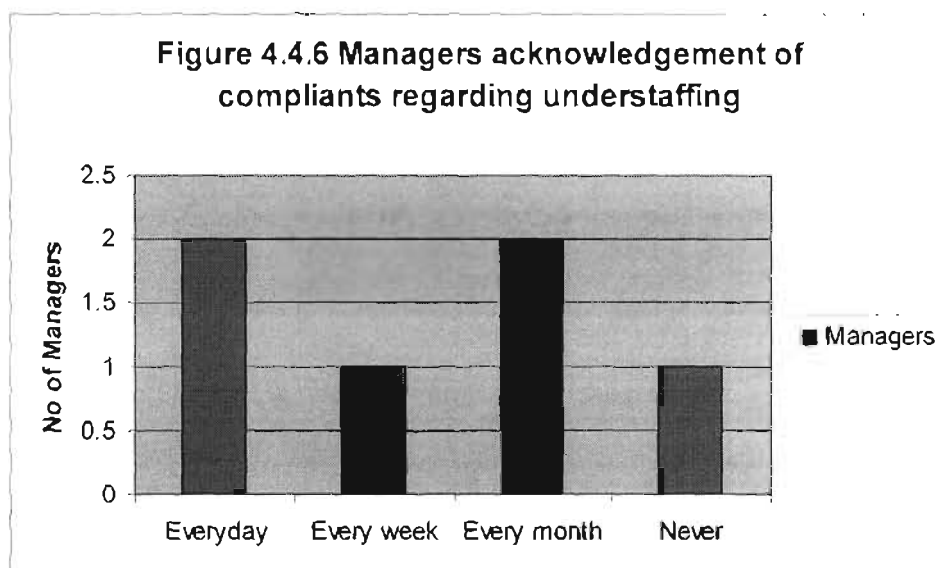
FIGURE 4.4.6. Managers acknowledgement of the receiving of complaints with regard to understaffing at St Apollinaris Hospital in July 2007.

The managers were also questioned about the frequency with which they had received complaints about the large patient workloads at St Apollinaris Hospital. One manager stated that they had received complaints everyday, 2 managers stated it occurred every

week while 3 managers stated that they had never received complaints about large patient workloads. The results are illustrated in Figure 4.4.7.

Figure 4.4.7 Frequency of compliants received regarding large patient workloads at SAH in July 2007
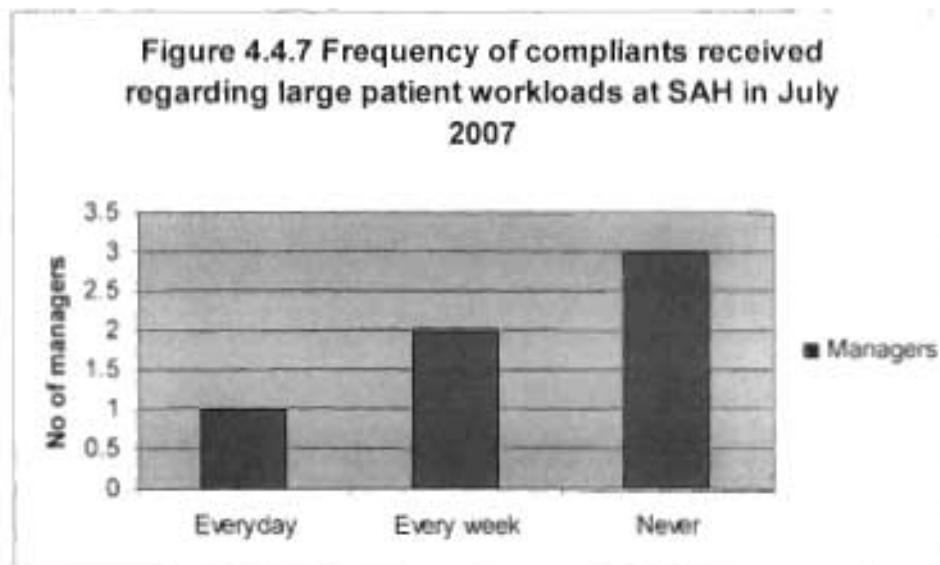
FIGURE 4.4.7. Managers acknowledgement of complaints received regarding large patient workloads at St Apollinaris Hospital in July 2007.

The frequency of complaints, that managers had received about the lack of training and support are illustrated in Figure 4.4.8. One manager stated that he/she had received complaints more than once a month; while five managers stated that they had never received such complaints.

Figure 4.4.8 Frequency of compliants regarding the lack of training and support recieved by managers at SAH in July 2007
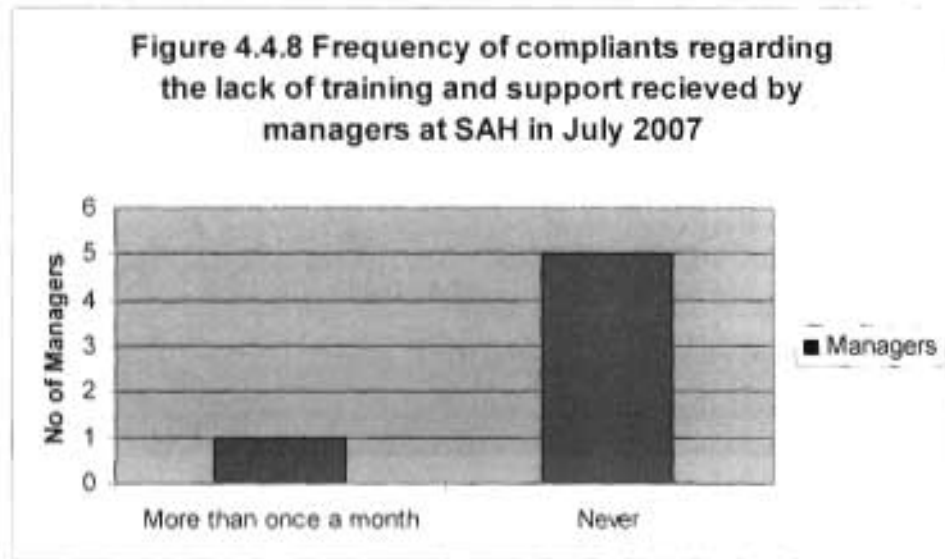
FIGURE 4.4.8. Top managers' acknowledgement about the frequency of complaints regarding the lack of sufficient training and support at St Apollinaris Hospital in July 2007.

Top management were also questioned about the frequency of complaints about the incompetence of co-workers at St Apollinaris Hospital. One manager stated that he/she had received complaints every week, while 3 stated that this occurred every month and 2 managers stated that this had never occurred. The results are illustrated in Figure 4.4.9.

Figure 4.4.9 Frequency of compliants regarding the incompetence of co-workers at SAH in July 2007
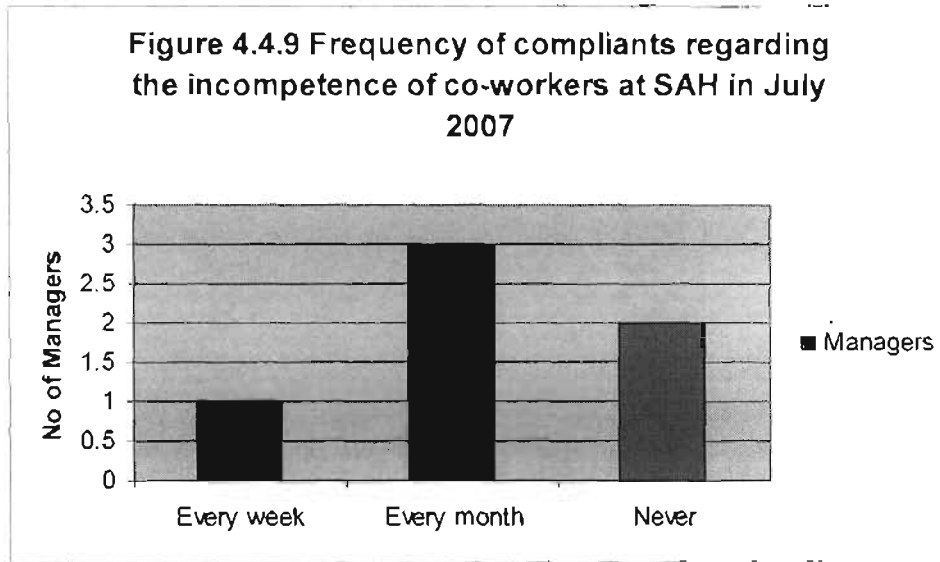
FIGURE 4.4.9. Managers' acknowledgement about the frequency of complaints regarding the incompetence of workers at St Apollinaris Hospital in July 2007.

Figure 4.4.10 illustrates the frequency of complaints regarding the lack of accountability that managers receive from the staff working under their control. One manager stated that it occurred every week, while another stated that it occurred every two weeks. Two managers stated that it occurred more than once a month, while the remaining 2 managers stated that they had never received any complaints.

Figure 4.4.10 Frequency of compliants regarding the lack of accountability at SAH in July 2007
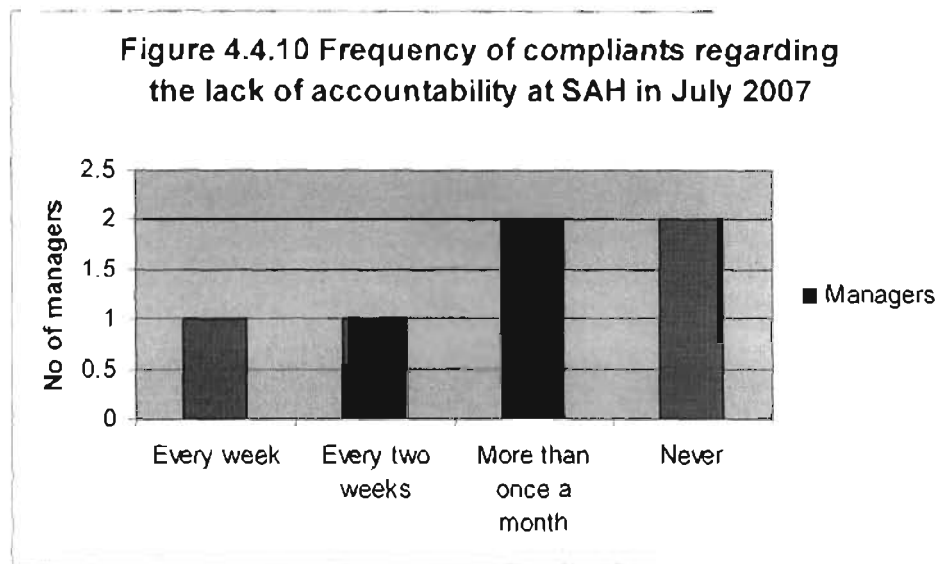
FIGURE 4.4.10. The frequency of complaints, received by general managers, with regard to the lack of accountability at St Apollinaris Hospital in July 2007.

There was a manager who highlighted that the lack of infrastructure was also a problem that they had received complaints about. The frequency of this compliant to this specific problem was thought to be once every two weeks.

Managers were questioned about the measures that they had implemented to try to deal with the employee grievances that had been disclosed to themselves. 4 managers indicated that they had never attempted to institute any of their own solutions. Two of these four managers indicated that they had followed the prescribed protocols put in place by the government by reporting the matter to their respective unit managers. 1 manager stated that they had tried to reallocate staff appropriately while one manager stated that they had instituted programmes to try to alleviate the accommodation problems that employees were experiencing.

4.4.4 PROBLEMS THAT TOP MANAGERS EXPERIENCED

Top managers were also asked for their opinions about what the most frustrating factor about working at St Apollinaris Hospital was. The results are illustrated in Table 4.4.1.

TABLE 4.4.1. THE FREQUENCY OF RESPONSES WITH REGARD TO THE FRUSTRATIONS OF WORKING AT ST APOLLINARIS HOSPITAL IN JULY 2007.

No	Factor	Frequency
1.	Poor infrastructure	5
2.	Poor accommodation	1
3.	Poor administration	1
4.	Inadequate Budgeting	1
5.	Absenteeism	1

4.4.5 TOP MANAGEMENT AND THE HOSPITAL BUDGET

All of the top six managers interviewed stated that they were required to attend cash flow meetings which they had done on a regular basis. The top managers were questioned as to whether, in their opinion, they had believed that the budget was well structured. The responses are illustrated in Table 4.4.2. The cumulative percentage of 83.4% of the top managers thought that the budget was not well structured.

TABLE 4.4.2. TOP MANAGERS RESPONSE TO THE STRUCTURE OF THE BUDGET AT ST APOLLINARIS HOSPITAL IN JULY 2007.

	No of employees (n)	Percentage (%)	Cumulative percentage (%)
Strongly Agree	0	0	0
Agree	1	16.6	16.6
Neutral	0	0	16.6
Disagree	3	50	66.6
Strongly Disagree	2	33.4	100
Total	6	100	

Top managers were asked, in their opinion, if resources were allocated to the right areas. The responses are illustrated in Table 4.4.3.

TABLE 4.4.3. TOP MANAGERS RESPONSE REGARDING THE ALLOCATION OF RESOURCES AT ST APOLLINARIS HOSPITAL IN JULY 2007.

	No of employees (n)	Percentage (%)	Cumulative percentage (%)
Strongly Agree	0	0	0
Agree	2	33.3	33.3
Neutral	0	0	
Disagree	3	50	83.3
Strongly Disagree	1	**16.6**	100
Total	6	100	

All the top managers interviewed stated that they would change the budget if given the opportunities. Managers were then asked about where they would allocate additional

resources to. The categories identified were salaries, equipment, recreation and service delivery. The results are illustrated in Table 4.4.4.

TABLE 4.4.4. THE FREQUENCY OF RESPONSES WITH REGARD TO THE POSSIBLE ALLOCATION OF FINANCIAL RESOURCES AT ST APOLLINARIS HOSPITAL IN JULY 2007.

No	Factor	Frequency
1.	Salaries	3
2.	Recreation	1
3.	Equipment	1
4.	Service Delivery	2

4.5 EQUIPMENT AT ST APOLLINARIS HOSPITAL

The results from the equipment list are illustrated in Table 4.5.1. There was no equipment pool according to the equipment officer and hence there were no items under this category.

TABLE 4.5.1 RESULTS OF THE ESSENTIAL EQUIPMENT SURVEY AT ST APOLLINARIS HOSPITAL IN JULY 2007.

No.	WARD/DEPARTMENT	No of Items According to Essential Equipment List	No of Items Identified in Ward	Percentage
1	Out patients	35	24	68.57
2	Maternity	58	29	50
3	Nursery	20	9	45
4	Ward 1&2 (medical)	31	14	45.16
5	Ward 1&2 (surgical)	35	16	45.71
6	Ward 9&10 (medical)	31	16	51.61
7	Ward 9&10 (surgical)	34	14	41.17
8	Children's Ward	44	26	59.09
9	Ward 7	40	14	35
10	Major OT	44	20	45.46
11	Minor OT	30	30	50
12	Equipment Pool	34	0	0

The most well equipped ward/department was the outpatients with 68.57% of essential equipment being present. The worst equipped ward (apart from the equipment pool) was Ward 7, with having 35% of the essential equipment being present. The average percentage of the essential equipment present in the hospital is 44.73%.

Table 4.3.2 illustrates the number and percentage of the present essential equipment that was present and working in St Apollinaris Hospital. The average percentage of the working essential equipment is 83.503%. The reason for some values may exceed a 100 percent is that while the items were present and working; they were below the prescribed number and hence were considered absent/incomplete in the number of essential items identified.

115

TABLE 4.5.2. THE NUMBER AND PERCENTAGE OF WORKING EQUIPMENT AT ST APOLLINARIS HOSPITAL IN JULY 2007.

No.	WARD/DEPARTMENT	No of Items Identified in Ward	No of Working Items Identified in Ward	Percentage
1	Out patients	24	23	95.83333
2	Maternity	29	31	106.8966
3	Nursery	9	9	100
4	Ward 1&2 (medical)	14	12	85.71429
5	Ward 1&2 (surgical)	16	14	87.5
6	Ward 9&10 (medical)	16	15	93.75
7	Ward 9&10 (surgical)	14	14	100
8	Children's Ward	26	25	96.15385
9	Ward 7	14	13	92.85714
10	Major OT	20	20	100
11	Minor OT	30	13	43.33333
12	Equipment Pool	0	0	0

4.6 OUT PATIENT SURVEY AT ST APOLLINARIS

The survey regarding the out patient doctor workload was also conducted over the July period. However, while data was collected, it was inadequately recorded with missing information in many instances. This prevented the researcher from extracting suitable information about the referral system functionality, as well as the need for a doctor's intervention in those patients presenting to the hospital. The information that was extracted from the data collected is illustrated in Table 4.6.1. There were 346 patients, in

total, that were seen in the out patients department at St Apollinaris Hospital. Of these, the researcher was only able to classify 292 patients.

TABLE 4.6.1. BREAKDOWN OF OUT PATIENTS ACCORDING TO EMERGENCY, ADMINISTRATIVE AND FOLLOW UP CASES AT ST APOLLINARIS HOSPITAL IN JULY 2007.

	Monday	Tuesday	Wednesday	Thursday	Friday	Total
Emergency	9	16	11	7	9	52
Administrative	12	18	12	2	8	52
Follow up	79	35	28	15	31	188
Total	100	69	51	24	48	292

4.7 FINANCIAL INFORMATION FROM ST APOLLINARIS HOSPITAL

During the 2006/2007 financial period, St Apollinaris Hospital spent approximately R40 957 000 while the projected budget was approximately R 35 110 000, resulting in an over expenditure of approximately R 5million. The reason for this expenditure was that additional services and quality programmes were instituted at the hospital that was not budgeted for. There were also additional goods and services that were unaccounted for and some of the critical posts that were filled having not been budgeted for. While the main projected cost for the 2006/2007 period was the salaries of employees and goods and services, other costs included machinery and equipment, maintenance (not specified to equipment or buildings) and vehicles. The following financial information was obtained from St Apollinaris Hospital for the 2006/2007 period and is represented in Table 4.5.1. The information obtained only included the employee compensations and the goods and services for the financial year. March 2007, was not included in the information provided. The figures in blue indicate were the actual expenditure was less than the budgeted amounts.

TABLE 4.7.1. ACTUAL VERSUS BUDGETED EXPENDITURE AT ST APOLLINARIS HOSPITAL FOR THE 2006/2007 FINANCIAL YEAR.

Month	Category	Budgeted Amount	Actual Expenditure
APRIL	Compensation to employees	2 160 917	2 234 474
	Goods and services	764 917	560 961
MAY	Compensation to employees	2 160 917	2 153 702
	Goods and services	764 917	1 238 291
JUNE	Compensation to employees	2 160 917	2 128 812
	Goods and services	764 917	1 321 463
JULY	Compensation to employees	2 160 917	2 424 621
	Goods and services	764 917	918 215
AUGUST	Compensation to employees	2 160 917	2 312 725
	Goods and services	764 917	1 004 798
SEPTEMBER	Compensation to employees	2 160 917	2 145 188
	Goods and services	764 917	876 298
OCTOBER	Compensation to employees	2 160 917	2 548 712
	Goods and services	764 917	1 152 856
NOVEMBER	Compensation to employees	2 160 917	2 614 940
	Goods and services	764 917	1 221 897
DECEMBER	Compensation to employees	2 160 917	2 741 532
	Goods and services	764 917	1 148 693
JANUARY	Compensation to employees	2 160 917	2 611 936
	Goods and services	764 917	283 821
FEBRUARY	Compensation to employees	2 160 917	2 990 754
	Goods and services	764 917	1 074 790
TOTAL		32 184 174	37 709 470

There are 5 instances out of 22 times when the actual expense incurred is less than the budgeted figure. For goods and services, there is a wide range of amounts, from R 283 821 to R 1 321 463 in the 11 month period.

4.8 CONCLUSION

In the above chapter, the researcher has presented results from the fieldwork that was undertaken. The results are of the two separate questionnaires, one of which was administered to the general employees, and the other to the top management. The results of the equipment and out patient survey are also illustrated in this chapter.

The financial information that was obtained from the hospital is described in this chapter.

The discussion of the results, the conclusions and recommendations of the study follow in the next chapter.

CHAPTER 5

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This, the final chapter of this dissertation outlines the discussion, conclusions and recommendations of the study of the potential rural health problems that may exist, and in this study more specifically to those that occur at St Apollinaris Hospital.

The previous chapters of the study have outlined the need of the study as well as its objectives, the literature review and the methodology. The fourth chapter has outlined the results obtained from the fieldwork.

The researcher would like to emphasize that while the recommendations that may be put forward would be in line with principles obtained from the Master of Business Administration programme, they may not be in keeping with the protocols to which a government institution would have to adhere to and as such might not be capable of being implemented.

It is also important to highlight the objectives of the study as this will provide the basis for this last chapter. The five objectives are listed under the following headings:

- *Human Resources:* This study aimed at identifying possible problems amongst staff with regard to increased work loads and understaffing. The problem of poor management skills was also identified as an issue for exploration, from an employee's point of view.

- *Equipment:* This study was to assess the levels of essential equipment, and the functionality thereof.

- *Patients:* This study aimed at assessing the necessity of patients visiting hospitals instead of primary health care centres.

- *Managerial:* The object of this component of the study was to assess the manager's understanding of the grievances of their sub-ordinates and the attempts they had made to alleviate such grievances.

- *Financial:* This study attempted to assess the budget planning process and any shortcomings thereof.

While the limitations of the study will be discussed under the headings of which they are related to, additional limitations will be summarised at the end of this chapter.

5.2 RESPONSE RATES AND DEMOGRAPHIC INFORMATION

In the stated time period of the study, there was a response rate of 73% including absentees and 85% if these absentees were excluded. As the response rate excluding absentees were greater than 80%, the results of the study can represent that of the whole study population. As discussed in the first chapter, the healthy worker effect (LaDou, 1997) may be limitation with this study, as those people who are absent may feel more strongly about conditions at St Apollinaris, which may not give us an accurate picture of the situation. The responses of the 22 individuals who were on leave or away sick may have influenced the results, as they may have been the individuals who were away sick as they could not deal with the conditions at St Apollinaris Hospital or they may have been quite content with the conditions thereof. The researcher will assume that the responses that were obtained from the sample population were a true reflection of the views of the total population, both present and away, as no sampling strategy was used.

The researcher would also like to point out that the workforce comprised of only 17% male employees and a breakdown of race showed that the largest employment population percentage was blacks with 87%. The mean age of the workforce was 34.99 years with the largest age group component of the study being from the 30 to 39 year age group. The researcher proposes that the characteristics of this workgroup maybe due to the location of the hospital, the recruitment policies of the management, or is indicative of a possible association of the people who prefer to work in a rural environment. The data illustrates that more than 50% of the workforce at St Apollinaris began working at this institute as their positions there were part of community service or that there were no jobs available in the cities.

The researcher proposes that this information be used when recruiting new individuals to the health care institute. The most likely individuals to stay at St Apollinaris would therefore be individuals who are in the 30-39 year age group.

5.3 OBJECTIVE 1: THE HUMAN RESOURCES COMPONENT

Potentially, the most important problem at St Apollinaris is understaffing (Health Systems Trust, 2002). A cumulative percentage of 83.6% agreed that understaffing was a problem at St Apollinaris. 51% of the general employees stated that they had experienced understaffing everyday, with another 26% experienced more than once a week.

58.7% of the general workers stated that they had considered resigning from St Apollinaris, with 33.7% of the general employees already in the process of looking for other jobs.

Approximately 8% of the employees at St Apollinaris Hospital identified the lack of career pathing as a reason for dissatisfaction, working at St Apollinaris Hospital. Of the general employees that had stated that they thought of resigning from St Apollinaris

Hospital, 14% stated that they were waiting for better job opportunities. While we are unable to calculate the percentage of interviewees who stated that career pathing was a suitable incentive, it had the forth highest frequency.

A possible recruitment strategy would be to:

- If management could implementing a recruitment strategy aimed specifically at the employing the types of people who would stay at St Apollinaris Hospital, management would have lower rates of staff turnover, and improved support and training for junior staff. The characteristics of potential employees should ideally be:

  ➢ Black females
  ➢ In the age group 30-39
  ➢ Are from the surrounding community
  ➢ Have worked previously in disadvantaged areas
  ➢ Are looking to work in St Apollinaris as they wish to make a difference to the population this institute services

- Promotions should be given to persons already working at St Apollinaris Hospital to foster a feeling of improved career pathing. This would also add to better training and support structures within the staffing component.

However, this recruitment strategy would take a long period of time to implement or have any impact on the short term needs that the institute currently faces. Other strategies like allowing employees to work overtime would be a suitable interim measure (Noe, *et al.*, 2006). Additional overtime should not be offered to individuals outside the permanent staff workforce. There are multiple reasons for the above statement, based on the researcher's perceptions while working at the St Apollinaris Hospital:

1. The employees outside the institution earn more compensation for overtime than do permanent employees due to the pension and other contributions that the permanent employee makes.

2. The permanent employees have the perception that they give more to the hospital as permanent workers in terms of goodwill than outside individuals and as such should be able to earn additional compensation from the hospital rather than it going to an external individual.

3. The outside, temporary employees do not have the same commitment to the hospital as the permanent employees do. They view themselves as simply having a position to fill for a few days. Outside temporary employees do not see the consequences of their potentially incorrect patient management.

44% of the general staff indicated that they believed that there were individuals they had worked with that were incompetent. A limitation of the study was that the researcher was unable to determine the amount of workers that the general workers thought to be incompetent. However, 48.5% of the general employees stated that acts of incompetence were witnessed by themselves at least one time a month. This lack of skills development could be due to the high rates of staff turnover with 77% of the general employees agreeing with this statement.

A possible solution to improving the above problem is to improve the levels of knowledge amongst all the general workers in the hospital. Allowing people to attend educational courses is not feasible as the knowledge gained by the few that are able to attend would not be disseminated to the larger work force. One also has to consider that St Apollinaris Hospital is not well staffed and the absence of just a few staff members may adversely affect work loads for those that are not on course.

The most viable way of improving skills at St Apollinaris Hospital is to hold weekly skills development courses on site within the hospital. These courses should be held

every week, for approximately an hour in the afternoons (so as to prevent minimal disturbance to ward/departmental functioning). Each doctor should be allocated an area of interest and he/she should disseminate information about these topics on a weekly basis to different members of staff. While it would be impractical to have an entire ward staff attend these training sections, a maximum of 2 ward staff members should be allowed to attend at any given time. The enhancement programmes should be actively promoted by all members of top and middle management with people receiving certificates for attendance and presenting information and demonstrating skills during these courses.

There seems no viable sustainable way to improve the social conditions at St Apollinaris Hospital as the budget is constantly exceeded. However, the managers could start social clubs that the staff could attend. Each staff member could be asked to contribute a monthly fee towards the club which would go towards organising social events. These social events could range from anything like sporting tournaments to social suppers.

Accommodation is also a long term problem which seems to have no real solution. Approximately 70% of the workers stated that they were not satisfied with the accommodation at St Apollinaris. However, a large amount of capital would have to be outlaid to improve this. The best recommendation is that top management make a special application for additional state funding to construct adequate new accommodation.

5.4 OBJECTIVE 2: THE MANAGEMENT COMPONENT AT ST APOLLINARIS HOSPITAL

The objective of this component of the study was to assess the general employees' problems and the perceptions they had about management being able to deal with their problems at the grass roots level. The study was also aimed at identifying possible ways of improving the management structures and assessing the programmes that were implemented by the current top management.

As the top management comprised only of 8 members, of which two members did not respond to the questionnaire, it is hard to draw valid conclusions about the entire population. A single individual's response to a question could have altered the percentage by approximately 17 percent. However, there were instances and issues around which the research was able to gain and assess valuable information.

The general employees' impressions about management were not very good. 47 % of this population were of the opinion that top management displayed a lack of accountability. 52% of the general employees stated, that in their opinion, management did not understand the problems that they had faced at the ground level.

However, 65% of the general staff strongly agreed, agreed or were neutral about top management's attempt to make a meaningful attempt to improve the staffing at St Apollinaris Hospital.

As the aim of this study was not to identify individuals or potential individual shortfalls, the following recommendations suggested, are for the entire management team:

- There should be a greater degree of communication between the general workers and top managers. The research has shown that while 85% of employees experience understaffing as a problem, with 51% stating that it occurred everyday, only 2 managers were able to say that they had received grievances to this frequency. A suitable recommendation is that top managers walk around, individually, on a weekly basis and talk to the general workers at the institute. This would build rapport and improve communication between the two parties. It would also help managers understand and bridge the gap between the management styles they currently use, and the potential leadership styles which may be lacking.

- Research needs to be conducted to evaluate the functioning of the middle management at St Apollinaris. The lack of communication could account for 47%

of the general staff thinking that top management lacked accountability. This lack of communication could be between the top management and middle management, or middle management and general employees. Once the deficiency and the level at which it occurs is identified, appropriate steps can be taken to rectify the issue.

An added advantage of having an active supportive management is that workers would begin to perceive St Apollinaris as a better place to work in. The presence of a supportive management could be used as a tool for attracting more human resources to St Apollinaris Hospital.

5.5 OBJECTIVE 3: THE OUT PATIENT COMPONENT AT ST APOLLINARIS HOSPITAL

The data obtained during the course of the study did not allow for the objectives of this component of the study to be met. This component of the study was aimed at identifying the types of patients that were seen by the doctors. If the researcher would have been able to determine the types of patients seen by the doctors, their referral systems and the need for a doctor's intervention, the researcher would have been able to assess the effectiveness of the current referral patterns.

This information may have allowed the researcher to make inferences on how to improve this system and hence improve the resource allocation within the hospital. 74 % of the general population stated that large patient workloads was a problem at St Apollinaris Hospital and 79 % of the previously mentioned population stated that it had occurred at least one time a week. Other questions posed in the general staff questionnaire revealed that 88% of the general staff believed that heavy patient workloads could be better controlled by a more integrated referral pattern.

The data that was collected did not adequately classify patients according to emergency, administrative and follow up cases. The data also did not adequately identify if the cases seen by the doctors had been referred from a primary health clinic, or if the cases seen really did require a doctor's intervention.

Every attempt was made to collect data on a daily basis; however this did not frequently happen. Hence, the researcher was not able to control the quality of the data that was being collected.

A possible reason for this component of the study not yielding the correct type of information was that the persons collecting the data did not adequately understand the nature of the information that was required. Every attempt was made to avoid the above situation from arising by explaining the reason and objectives to all the staff members before the commencement of the study.

Another possible reason for failure in this component is that not all doctors felt the need to comply with the study. There were no after hours data collected by the staff on call, nor were there any data collected by persons other than those assigned to the out patients department during the 8am to 4 pm time periods, although other staff members did work there.

A recommendation would be that this component of the study be revisited by a permanent staff member and depending on the results of the study, new recommendations about the out patient department should be suggested. This may entail setting aside specific days to accomplish certain tasks, like assigning a doctor trained in disability assessments to process disability grants, a doctor with more experience in paediatrics to run a cerebral palsy clinic, or a doctor with an interest in psychiatry to run a psychiatric clinic. This process allows for the development of skills amongst the staff of the hospital and improves the quality of care that the hospital provides.

The formation of specialised clinics and a culture of staff development could also be used to attract human resources to St Apollinaris Hospital, as persons with specific interests would be interested in starting or improving on existing programmes.

Another possible recommendation, if substantiated by the new study, would be to provide regular clinic support, in the form of a visiting doctor, to the primary health care clinics in this area. The visit should be structured in such a way that there is enough time to examine and manage problem cases, briefly analyse the clinic's weekly/monthly statistics and provide the community health workers with a training session for approximately 30 to 60 minutes on basic essential medical topics that a primary health care clinic deals with on a daily basis. This would improve the quality of care provided at the primary health care clinics as well as improve the referral system that is currently in place.

5.6 OBJECTIVE 4: THE EQUIPMENT COMPONENT AT ST APOLLINARIS HOSPITAL

The equipment survey at St Apollinaris Hospital shows that all the wards are under equipped. The survey revealed that, according to the essential equipment list, the best equipped ward had only 69% of the equipment. The worst equipped ward had 35% of the essential equipment with all wards/departments having an average of 45%. There was no equipment pool at St Apollinaris.

81% of the general employees stated that St Apollinaris Hospital is frequently out of stock of essential items and essential equipment. 81% of the general employees stated that they had complained about the lack of equipment at least once a month. 90% of the general employees stated that the lack of equipment left them feeling frustrated at work and 85% of the general employees stated that, in their opinion, the low levels of equipment resulted in compromised patient care. A limitation of the study was that the researcher was not able to illustrate how much of the time St Apollinaris was out of stock. This would have required a longer study, possibly of a cohort design. This would not have been feasible due to time and resource constraints.

However, in light of the above results, it can be concluded that the essential equipment of the hospital is below an acceptable standard and resulted in compromised patient care and added to the staff frustrations.

While the researcher attempted to identify the areas with the lowest equipment levels, it is important to note that the highest frequency of responses indicated that all the wards were equally under-equipped.

There are a number of recommendations that can be made with regard to improving the equipment levels, but these would not be sustainable. The most viable would be the following:

1. In keeping with the essential equipment list and equipment maintenance protocols, a list of essential equipment that is not present that should be forwarded to the Department of Health. Thereafter, there should be additional funds requested to ensure that the hospital is able to pay for the equipment.

2. An equipment pool must be established to ensure that when equipment is not functioning optimally, the functionality of the wards/departments is not affected.

3. An equipment team comprising of the equipment officer, a doctor, a nurse and a member of top management should be formed. This committee should meet in accordance with the regulations stipulated by the Medical Procurement Manual of 2003. This team should be responsible and answerable for all equipment problems experienced by the hospital.

4. There should be maintenance policies instituted in accordance with those outlined by the Health Technology Services of the KwaZulu-Natal Department

of Health. This would reduce the number of preventable break downs that would compromise patient care.

5. Private partnerships with medical supply companies must be sought. These medical supply companies should ideally be the companies from which St Apollinaris Hospital regularly purchases medical items from. These companies could be asked to supply an item of medical equipment, or give a donation to help improve the equipment levels at St Apollinaris. However, this recommendation may not be allowed unless cleared by the Department of Health. Individuals may argue that this recommendation is improper due to the nature of the relationship between the hospital and the medical suppliers, the following must be remembered:

- The contribution on the part of the medical suppliers does not benefit a single individual, but rather the community at large.
- The process whereby supplies are purchased is by means of a tendering process. This process is open to scrutiny.
- If a company benefits and makes a profit from selling supplies to the hospital, it has a social responsibility to the hospital and the community the hospital serves to try to improve the conditions at the hospital.

5.7 OBJECTIVE 5: THE FINANCIAL COMPONENT AT ST APOLLINARIS HOSPITAL

The objectives of this part of the study were not adequately achieved for the following reasons:

1. The financial records obtained from St Apollinaris Hospital were less than adequate to make appropriate inferences and conclusions. The records provided did not include all the costs that were incurred during the 2006/2007 period. The budgets and financial information provided was superficial and hence there was

not enough information to allow for proper identification of budgeting and spending shortfalls. There were no minutes for the cashflow meetings that were supposed to be held weekly. There were no budgets or statements of income and expenditure for the 2007/2008 period.

2. Due to the sensitive nature of financial information, the researcher did not wish to enquire about further information. The researcher has outlined that the review of financial information was not to identify potential problems with individuals, but rather to propose interventions to help with further planning. The requesting of financial information may have undermined any attempt to maintain neutrality.

3. There was missing financial information with regard to equipment purchased during the 2006/2007 period, the vehicles that were purchased and the cost of the maintenance of the hospital buildings and equipment.

From the information that was provided it is observed that there were 5 out of 22 times when the actual expense incurred is less than the budgeted figure with regards to employee compensation and goods and services.

It is also observed that for goods and services, there is a wide range of amounts, from R 283 821 to R 1 321 463 in the 11 month period. The researcher questioned the budgeting process that the hospital followed and was told that it complied with governmental protocols. However, it was worth noting that the wide range in expenditure shows inadequacies in the budgeting process as there is no correlation or consistency in the expense incurred.

With regards to the compensation to employees the budgeted figure of R 2 160 917 was allocated to salaries for a month. The actual expenditure figure ranged from R 2 128 812 to R 2 741 532. While one cannot make proper conclusions about the compensation of employees, it is strange to note that the 88% of the general employees and 83% of the top managers acknowledged that understaffing was a problem. How could the budget for compensation to employees exceed the budgeted amounts? The possible explanations are

that there is inadequate financing from the Department of Health, or that the institute is adequately staffed according to the Department.

The following recommendations are suggested:

1. A proper analysis of the financial results must be undertaken. There should be care taken to identify trends in expenditure, reasons for over expenditure and reasons for under expenditure. This would allow the financial manager to be better able to predict the cost of running the hospital. It would also identify areas in which the hospital may be overspending. If the hospital could run by spending only R 230 000, the researcher is not able to justify the expenditure of R 1 320 000 for the same cost category in a different month.

2. The minutes of the cash flow meetings should be analyzed to assess areas wherein there are areas which require additional funding but would not be able to gain funding until the committee decides on its expenditure. If these items are regularly requested, they could be moved onto the actual yearly budget.

3. Budgets should be compiled for the different sections of the hospital. These budgets could be drawn according to the different departments or depending on the different categories of costs. For example, budgets could be drawn up for the theatre, wards, kitchen, etc or they could be compiled according to medical supplies, consumable items, equipment, etc.

4. The procedure whereby which the budgeted costs are calculated must be reconsidered. There needs to be a method whereby costs are categorised into fixed, variable or mixed costs and the importance and occurrence of these costs established to identify suitable budgeting strategy.

5. This budgeting strategy should be implemented with a cost effective inventory management technique like the just in time or ABC systems. This would

decrease the amount of money that could be "tied up" in inventory that could be used in other areas.

6. In trying to decrease costs, the financial manager should begin with the most expensive cost factors. In this instance, it is the compensation to staff component.

The general employee questionnaire attempted to identify those areas where the staffing was adequate and even over adequate, which may have resulted in staff members becoming complacent and lacking accountability. 17% of the general employees identified the foreign or new doctors as lacking accountability. Amongst the doctors, as a group they expressed the view that they were adequately staffed. 47% of the staff thought that top management lacked accountability. In a purely business environment, a further study would have been conducted to determine how productive these two groups of individuals were and if found not to be optimal, staffing in these sectors could have been reduced thus reducing compensation costs. This saving could have been used in other improvement projects around the hospital.

Another point for possible monetary saving is with regards to the way in which overtime is paid to the doctors. Assuming a staff compliment of approximately 14, with there being 30 days in the month, each doctor would be able to claim overtime for approximately 34.28 hours per month. However, further investigation on this possible cost cutting measure would have to be investigated.

5.8 LIMITATIONS OF THE STUDY

An obvious limitation of the study is that it was confined to the rural health care institute of St Apollinaris Hospital. As such the results and the problems facing this institute are not generalisable to other hospitals or communities. A larger more extensive study could not be undertaken due to time, human resource and financial constraints. If the recommendations proposed are to be used in another health care setting, it is important

that it is done so with caution and by a knowledgeable team dedicated to the specific problems of that health care institute.

Another limitation is the deficiency of published information with regard to the rural health care setting and in particular the Sisonke district, to which the results of the study could be compared to. While every attempt has been made to find information, most of the information was obtained through the Department of Health's passive District Information System and the Health Systems Trust. Hopefully, this study will foster more research into the problems that health care institutes like St Apollinaris face.

Whilst, the researcher attempted to reduce selection bias by examining the entire population, it must be noted there were individuals who were not included in the study due to absenteeism. It was assumed that their responses would have been similar to those obtained from other staff members as financial, human and time constraints prevented the researcher from following up these individuals.

With regard to the management component, the small number of top managers prevented adequate conclusions to be drawn. A further study, possibly including all top managers in the Sisonke District, may yield better, more significant results.

It is hoped that this research will provide hospital managers, in all rural areas, with a possible blueprint with which they could identify and approach some of the problems they may face.

It is also hoped that this study sparks interest in other studies that could be conducted at the St Apollinaris and other similar rural hospitals. It is hoped that this study will prove as a point of reference for other studies.

5.9 CONCLUSION

The rural health problem – St Apollinaris Hospital has focused on the deep rural health care facility of St Apollinaris in the Sisonke district of KwaZulu-Natal, South Africa.

This study set out to determine the possible human resource problems that St Apollinaris faced. It was discovered that understaffing was a problem experienced by 51% of the general employees' everyday. A possible recruitment strategy has been proposed with special attention to:

- A short term solution
- A long term solution
- Possible characteristics of persons most likely to remain at St Apollinaris for a longer period of time.

The equipment survey has allowed the researcher to conclude that the levels of equipment are below standard resulting in increased worker frustrations and compromised patient care. An equipment plan needs to be instituted at St Apollinaris Hospital. Attention should be paid to bringing the essential equipment up to the prescribed levels as soon as possible. An equipment pool should be established and maintained with the equipment officer playing a more active role in equipment management.

The outpatient component of this study has highlighted that 74 % of the general population stated that large patient workloads was a problem at St Apollinaris Hospital and 79 % of the previously mentioned population stated that it had occurred at least one time a week. While 88% of the general staff believed that heavy patient workloads could be better controlled by a more integrated referral pattern, the data collected from the outpatient department did not allow for a true analysis of the out patients and the efficiency of the referral pattern. It is recommended that this objective be revisited by one

of the staff members at St Apollinaris, for a longer study period to determine a true picture of the outpatients and the referral patterns.

The financial component of this study was not successful due to the lack of financial information. However, apart from more investigation and analysis being needed, it is recommended that St Apollinaris develop their own effective budgeting system. This is to be based on the nature of costs i.e. fixed, variable and mixed. An effective supply chain management system is also advised so as to minimise income that may be tied up in surplus stock.

The issues around which a researcher may consider further research include:

- The effectiveness of the out patient referral system which needs to be evaluated with the aim of identifying strategies which could decrease the number of hospital referrals.
- The budgeting and expenditure needs to be carefully analysed with the aim of identifying and minimising expenses.

To conclude, this study has identified possible problems that St Apollinaris Hospital faces and has proposed recommendations which could be viable and sustainable for this hospital. This study has also identified areas for other potential studies which could be beneficial to the management of St Apollinaris, and hence the health of the community as a whole. In the light of the conclusions reached, the recommendations made and the suggestions put forward for further research, this study is concluded.

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Personal Communiqués (Verbal)

1. Person A, Senior Manager Level, 20 April 2007.

2. Person B, Senior Manager Level, 11 July 2007.

3. Person C, Senior Management Level, 7 June 2007.

APPENDIX 1

LETTER OF INFORMED CONSENT

Dear Interviewee

**MBA Research Project: The Rural Health Care Problem in the Sisonke District –
St Apollinaris Hospital**

Researcher: Dr K Seevnarain (031 260 4387)
Supervisor: Mr. A Bozas (082 334 4477)
University of KwaZulu-Natal

We need your help in trying to assess possible problems that may exist at St Apollinaris Hospital in order to better organize infrastructural changes to benefit the population this hospital it serves.

Consent and Participation

As the interview is completely voluntary, you may choose not to participate in this study. However, your responses will assist us greatly and will only take a few minutes.

Undertaking by the researcher

The researcher undertakes to:
- Honour the agreement that the interviewees may withdraw at any given time, should they wish without any negative or undesirable consequences to themselves
- Treat all responses with the strictest of confidence
- Ensure anonymity
- Provide the participants with copies of the survey results as benefits to them, should they choose to receive such
- Dispose of the collected data in accordance with University rules.

Consent

I, _____ (please provide your name and surname), hereby confirm that I understand the contents of the interview and the nature of the research project, and I hereby agree to participate in the research project, provided that my personal identity is not revealed in the final published research report.

I understand that I can withdraw from the project at any time, should I desire so.

Signature of Participant _____
Date_____

APPENDIX 2

INTERVIEW SCHEDULE FOR GENERAL EMPLOYEES

Interview Schedule

The Rural Health Care problem in the Sisonke District

St Apollinaris Hospital

Researcher: Dr K Seevnarain
Supervisor: Mr. A Bozas
Graduate School of Business
University of KwaZulu-Natal

Dear Sir/Madam

How you can help the abovementioned research project

My name is Kalesh Seevnarain. I am completing a Masters in Business Administration (MBA) degree at the University of KwaZulu-Natal, and I need your assistance to complete the research project that forms the basis of my dissertation.

All information provided by you will be treated as strictly confidential and will not identify you in person in the published research report. I need your written permission to record and analyze my interview with you. The contact details that you provide will also be treated in the strictest confidence.

Interview Schedule

I.   **Opening**

As you are one of the staff members at the St Apollinaris Hospital, we thought it appropriate to interview you about working at the St Apollinaris Hospital.

The interview should take around 10 minutes. Are you available to respond to some questions at this time?

II   **Body**

1. Record interviewee's gender
   - o Male   (1.1)
   - o Female   (1.2)

2. Record interviewee's race group
   - o Black   (2.1)
   - o White   (2.2)
   - o Asian   (2.3)
   - o Colored   (2.4)

3. Record interviewee's raw age _____ and age group
   - o < 20 years   (3.1)
   - o 20 – 29 years   (3.2)
   - o 30 – 39 years   (3.3)
   - o 40 – 49 years   (3.4)
   - o > 49 years   (3.5)

4. What are your academic qualifications?
   - o Matriculation   (4.1)
   - o Diploma   (4.2)
   - o Degree   (4.3)
   - o Post graduate degree/diploma   (4.4)

5. What is your current job description?
   - o Doctor   (5.1)
   - o Nurse   (5.2)
   - o General Assistant   (5.3)
   - o Administrative staff member (5.4)

6. How long have you been employed at St Apollinaris Hospital?
   - o Less than 1 year   (6.1)
   - o 1 – 2 years   (6.2)
   - o 2 – 5 years   (6.3)
   - o 6 – 10 years   (6.4)
   - o more than 10 years   (6.5)

7. What was your reason for coming to work at St Apollinaris Hospital?
   - o Training   (7.1)
   - o Community service   (7.2)
   - o Promotion   (7.3)
   - o Not able to get a job in the city   (7.4)
   - o None of the above   (7.5)
   - (if so, please specify reason_____)

8. Does working at St Apollinaris Hospital meet your expectations in terms of

   8.1. Job satisfaction

1	Strongly Agree	2	Agree	3	Neutral	4	Disagree	5	Strongly Disagree

   8.2 Employment conditions

1	Strongly Agree	2	Agree	3	Neutral	4	Disagree	5	Strongly Disagree

   8.3 Accommodation

1	Strongly Agree	2	Agree	3	Neutral	4	Disagree	5	Strongly Disagree

   8.4 Social life

1	Strongly Agree	2	Agree	3	Neutral	4	Disagree	5	Strongly Disagree

   8.5 Family Life

1	Strongly Agree	2	Agree	3	Neutral	4	Disagree	5	Strongly Disagree

9. If a negative response to the above, in what respect has working at St Apollinaris Hospital not met your expectations?

_____

_____

_____

_____

_____

_____

_____

10. The possible problems you may encounter in the management of patients at St Apollinaris Hospital are:

	Strongly Agree (1)	Agree (2)	Neutral (3)	Disagee (4)	Strongly Disagree(5)
10.1 Understaffing					
10.2 Large patient loads					
10.3 Lack of sufficient training and support					
10.4 Incompetence of co-workers					
10.5 Lack of accountability					

11. If yes to the above question, how often do these problems present themselves at the institute? (please tick appropriate block)

	Everyday (1)	More than once a week (2)	Every week (3)	Every 2 weeks (4)	Every month (5)	Never (6)
11.1 Understaffing						
11.2 Large patient loads						
11.3 Lack of sufficient training and support						
11.4 Incompetence of co-workers						
11.5 Lack of accountability						
11.6 Other:						

12. If yes to question 10, please consider the following questions:
       12.1 In your opinion, has management has had a meaningful attempt to improve the staffing at St Apollinaris?

1	Strongly Agree	2	Agree	3	Neutral	4	Disagree	5	Strongly Disagree

12.2 Do you think the large patient workloads can be controlled by better management of resources and a more integrated referral pattern?

1	Strongly Agree	2	Agree	3	Neutral	4	Disagree	5	Strongly Disagree

12.3 Is the lack of sufficiently trained staff a result of a high staff turnover?

1	Strongly Agree	2	Agree	3	Neutral	4	Disagree	5	Strongly Disagree

12.4 Is the lack of accountability mainly on the part of
- o A few doctors (12.4.1)
- o Most of the doctors (12.4.2)
- o A few nurses (12.4.3)
- o Most of the nurses (12.4.4)
- o A few members of management (12.4.5)
- o Most of the management compliment (12.4.6)

12.5 Is there a specific group of persons who you would identify as being responsible for the lack of accountability?
- o Yes (12.5.1)
- o No (12.5.2)

12.6 If yes to e), please specify_____

13. Since commencing work at St Apollinaris Hospital, have you given thought to resigning?
- o Yes (13.1)
- o No (13.2)

14. If yes to question 11, what are the reasons for remaining at St Apollinaris Hospital?

_____

_____

_____

_____

15. If given a choice, would you remain working at St Apollinaris Hospital?
- o Yes (15.1)
- o No (15.2)

149

16. Do you believe that incentives could attract more people to St Apollinaris Hospital?

1	Strongly Agree	2	Agree	3	Neutral	4	Disagree	5	Strongly Disagree

17. If a positive response to the above question, what incentives would you provide?

_____

_____

_____

_____

18. Do you find that the hospital is frequently out of stock of essential medical items and equipment?

1	Strongly Agree	2	Agree	3	Neutral	4	Disagree	5	Strongly Disagree

19. Do you find that equipment is often not working at St Apollinaris Hospital?

1	Strongly Agree	2	Agree	3	Neutral	4	Disagree	5	Strongly Disagree

20. How often do you find yourself complaining about the lack of (or the condition of) medical equipment?
    o   Everyday   (20.1)
    o   More than once a week   (20.2)
    o   Once a week   (20.3)
    o   More than once a month   (20.4)
    o   Never   (20.5)

21. Is there a specific department of the hospital where you believe that equipment is constantly suboptimal?
    o   Yes   (21.5)
    o   No   (21.6)

22. Is yes to question 20, please state which department/s?

_____

_____

23. In your opinion, does a recurrent equipment shortage result in you becoming frustrated?

| 1 | Strongly Agree | 2 | Agree | 3 | Neutral | 4 | Disagree | 5 | Strongly Disagree |

24. In your opinion, do recurrent levels of equipment shortage result in compromised patient care?

| 1 | Strongly Agree | 2 | Agree | 3 | Neutral | 4 | Disagree | 5 | Strongly Disagree |

25. In your opinion, do higher levels of management understand the problems employees face at ground level?

| 1 | Strongly Agree | 2 | Agree | 3 | Neutral | 4 | Disagree | 5 | Strongly Disagree |

26. If given a choice, what would you consider changing at St Apollinaris Hospital and why?

_____

_____

_____

_____

III   Closing

- I appreciate the time you took for this interview. Is there anything else you think would be helpful for me to know about the problems that we have discussed?

- I should have all the information I need. Would it be alright to call you at Home or at your office or on your mobile if I have any more questions?

I would like to once again thank you for your contribution to this research project.

FURTHER INFORMATION

DATE	/ 07 / 2007
WARD	
SHIFT	DAY
	NIGHT

151

APPENDIX 3

INTERVIEW SCHEDULE FOR TOP MANAGERS

Interview Schedule

The Rural Health Care problem in the Sisonke District

St Apollinaris Hospital

Researcher: Dr K Seevnarain
Supervisor: Mr. A Bozas
Graduate School of Business
University of KwaZulu-Natal

Dear Sir/Madam

How you can help the abovementioned research project

My name is Kalesh Seevnarain. I am completing a Masters in Business Administration (MBA) degree at the University of KwaZulu-Natal, and I need your assistance to complete the research project that forms the basis of my dissertation.

All information provided by you will be treated as strictly confidential and will not identify you in person in the published research report. I need your written permission to record and analyze my interview with you. The contact details that you provide will also be treated in the strictest confidence.

Interview Schedule

I.   **Opening**

As you are one of the staff members at the St Apollinaris Hospital, we thought it appropriate to interview you about working at the St Apollinaris Hospital.

The interview should take around 10 minutes. Are you available to respond to some questions at this time?

II   **Body**

1. Record interviewee's gender
   o Male   (1.1)
   o Female   (1.2)

2. Record interviewee's race group
   o Black   (2.1)
   o White   (2.2)
   o Asian   (2.3)
   o Coloured   (2.4)

3. Record interviewee's raw age_____ and age group
   o < 20 years   (3.1)
   o 20 – 29 years   (3.2)
   o 30 – 39 years   (3.3)
   o 40 – 49 years   (3.4)
   o > 49 years   (3.5)

4. In which department are you currently working?
   o Medical   (4.1)
   o Nursing   (4.2)
   o Human resources   (4.3)
   o Financial management   (4.4)
   o Other administrative areas   (4.5)
             (If other specify :_____)

5. How long have you been a manager in this department?
   o In years: _____
   o In months (if less than a year):   _____

6. What experience or formal training have you had regarding your area of specialty?

   _____

   _____

   _____

   _____

7. What formal training have you had regarding managerial skills?

   _____

8. Why did you accept a job at St Apollinaris Hospital?

_____

_____

_____

_____

9. Since commencing work at St Apollinaris, what measures have you taken to ensure the upliftment of the institute?

_____

_____

_____

10. Of these, how many have been completed or are still in operation?

_____

_____

_____

_____

11. What are the possible reasons for the failure of such programmes?

_____

_____

_____

_____

12. How often have you received complaints or grievances from those employees working under you?
   - o Never   (12.1)
   - o Once a month   (12.2)
   - o Every 3 months   (12.3)
   - o Every 6 months   (12.4)
   - o Once a year   (12.5)

13. If a positive response to the above, how often have you received complaints about:

	Everyday (1)	More than once a week (2)	Every week (3)	Every 2 weeks (4)	Every month (5)	Never (6)
13.1 Understaffing						
13.2 Large patient loads						
13.3 Lack of sufficient training and support						
13.4 Incompetence of co-workers						
13.5 Lack of accountability						
13.6 Other:						

14. What measures have you taken to ensure that employee grievances are dealt with effectively?

_____

_____

_____

_____

15. What, in your opinion, are the most frustrating factors of working at St Apollinaris Hospital?

_____

_____

_____

16. As a top manager, are you required to attend financial budget and cash flow meetings?
   o Yes   (16.1)
   o No   (16.2)

17. If yes to question 16, how often do you attend these meetings?
- o Regularly   (17.1)
- o When you have the time   (17.2)
- o Hardly ever   (17.3)
- o Never   (17.4)

18. In your opinion as a top manager, is the budget well structured?

1	Strongly Agree	2	Agree	3	Neutral	4	Disagree	5	Strongly Disagree

19. In your opinion, is finance being allocated to the right areas?

1	Strongly Agree	2	Agree	3	Neutral	4	Disagree	5	Strongly Disagree

20. If given a chance, would you change the budget?
- o Yes   (20.1)
- o No   (20.2)

21. If yes to question 21, to which resource would you allocate more money?

_____

_____

22. How long do you plan on working at St Apollinaris Hospital?
- o Less than a year   (22.1)
- o 1-2 years   (22.2)
- o 2-5 years   (22.3)
- o >5 years   (22.4)

23. What are the possible reasons for wanting to leave St Apollinaris, if any?

_____

_____

_____

III   **Closing**

- I appreciate the time you took for this interview. Is there anything else you think would be helpful for me to know about the problems that we have discussed?

I would like to once again thank you for your contribution to this research project.

APPENDIX 4

LETTER OF PERMISSION FROM ST APOLLINARIS HOSPITAL

HEALTH
KwaZulu-Natal

FAX TRANSMISSION SHEET

St Apollinaris Hospital
Private Bag X 206, Creighton, 3263
Tel.: 039 8331045 EXT 8016, Fax.039 8331062,
Email.:lilly.dlamini@kznhealth.gov.za
www.kznhealth.gov.za/stapollinarishospital.htm

BRONZE WINNER
PRIMARY SERVICE
EXCELLENCE AWARDS
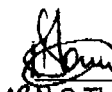2004

15 May 2007

Dear Sir

RE – MBA STUDY AT ST APOLLINARIS HOSPITAL

Your letter 10th May 2007

It is with pleasure that I inform you that your request to conduct your study for purposes of completion of your MBA studies has been approved by Hospital Management.

We look forward to the results of your study, as we believe the results of your study will prove beneficial to our health care Institute.

Regards

N C Thekiso (CEO)
Chief Executive Officer
St Apollinaris Hospital

St. Apollinaris Hospital
HOSPITAL MANAGER

2007 -05- 1 5

P/Bag x206
Creighton 3263

APPENDIX 5

LETTER OF APPROVAL FOR STUDY FROM DEPARTMENT OF HEALTH – KWAZULU NATAL

HEALTH SERVICE DELIVERY #2303 P.001 /00

HEALTH
KwaZulu-Natal

Health Research & Knowledge Management sub-component
10 – 103 Natalia Building, 330 Langalibalele Street
Private Bag x9051
Pietermaritzburg
3200
Tel.: 033 – 395 3070,
Fax.: 033 – 394 3782
Email.: Scelo.dlamini@kznhealth.gov.za
www.kznhealth.gov.za

Reference : HRKM004/07
Enquiries : Mr. S.S. Dlamini
Telephone : 033 – 395 3070

12 July 2007

Dear Dr. Seevnarain

Subject: The rural health care problem in the Sisonke Health District research project

1. The research proposal entitled **The rural health care problem in the Sisonke Health District – St. Apollinaris Hospital** was reviewed by the KwaZulu-Natal Department of Health. The proposal is hereby approved for research to be undertaken at St. Apollinaris Hospital.

2. You are requested to undertake the following:
   a. Provide an updated work plan for the research project to Mr. S.S. Dlamini.
   b. Make the necessary arrangement with identified facilities before commencing with your research project.
   c. Provide an interim progress report and final report (electronic and hard copies) when your research is complete.

3. Your final report must be posted to **HEALTH RESEARCH AND KNOWLEDGE MANAGEMENT, PRIVATE BAG X9051, PIETERMARITZBURG, 3200** and e-mail an electronic copy to scelo.dlamini@kznhealth.gov.za.

For any additional information please contact Mr. S.S. Dlamini on 033-395 3070.

Yours Sincerely

Dr. S.S.S. Buthelezi
Chairperson: Provincial Health Research Committee
KwaZulu-Natal Department of Health

APPENDIX 6

LETTER OF ETHICAL APPROVAL

RESEARCH OFFICE (GOVAN MBEKI CENTRE)
WESTVILLE CAMPUS
TELEPHONE NO.: 031 – 2603587
EMAIL : ximbap@ukzn.ac.za

UNIVERSITY OF
KWAZULU-NATAL

11 JUNE 2007

DR. K SEEVNARAIN (993217077)
GRADUATE SCHOOL OF BUSINESS

Dear Dr. Seevnarain

ETHICAL CLEARANCE APPROVAL NUMBER: HSS/0325/07M

I wish to confirm that ethical clearance has been granted for the following project:

"The rural health care problem in the Sisonke district – St Apollinaris Hospital"

PLEASE NOTE: Research data should be securely stored in the school for a period of 5 years

Yours faithfully

MS. PHUMELELE XIMBA
RESEARCH OFFICE

cc. Post-Graduate Office (Christel Haddon)
cc. Supervisor (Ms. PD Oodith)