PERCEPTIONS OF MEDICAL PRACTITIONERS TOWARD MANAGED HEALTH CARE

by

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ABSTRACT

The purpose of the present study was to investigate the perceptions of medical practitioners towards managed health care and its implications for patient care. The study population was the medical practitioners in the northern suburbs of Johannesburg. A questionnaire was distributed to 224 medical practitioners in the northern suburbs of Johannesburg. The total number of the respondents was 81 with 53% being general practitioners and 47% being specialists.

The findings of the study indicated that the majority of respondents perceived managed healthcare to have a negative impact on doctor-patient relationship, the ability to carry out their ethical obligations towards the patients, and that the limitations implemented by managed health care have a negative impact on the quality of care. The respondents also perceived managed healthcare to be consistent in reducing unnecessary procedures and reducing the expenditure.

Recommendations made to remedy the situation include introducing a topic of managed health care as part of undergraduate studies to empower practitioners before they start a private practice. It would be advisable to include medical practitioners to help reform the strategies that will enable medical practitioners to carry out their ethical obligations towards the patients and to deliver quality care to the patients.

The study concluded that medical practitioners hold negative perceptions towards managed health care and perceive managed health care to impact the quality of care negatively.

DECLARATION OF ORIGINAL WORK

I, **Lefume Samuel Khosi,** declare that this dissertation is my own unaided work. Any assistance that I have received has been duly acknowledged in the dissertation. It is submitted in partial fulfilment of the requirements for the degree of Master of Commerce at the University of Johannesburg. It has not been submitted before for any degree or examination at this or at any other university.

Author's signature

Date

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CHAPTER ONE: INTRODUCTION

1.1 Background and motivation for the study

In recent decades, the health-care services industry has been challenged by the continuous rise in health-care costs, which has been driven by advances in technology, innovations in pharmaceutical research and development as well as improved diagnostic capabilities (Rivers & Tsai, 2001: 303; Lazaro & Azcona, 1996: 186). The high price of drugs is however seen as the main culprit (Rivers & Tsai, 2001: 303). The combination of these factors can make health care unaffordable and therefore inaccessible to some patients. Managed health care was formed to curb these increasing costs of healthcare (Guo, 2004: 370). The need to provide coverage against exceptionally large medical costs also contributed to the formation of managed healthcare. There are more complicated medical procedures that are expensive and therefore may be out of reach for many patients who need them. It is also believed that the lack of expenses control between health-care service providers and patients in a fee-for-service system led to health-care costs spiralling out of control. In a fee-for-service system, the health-care professionals are encouraged to do more in order to earn more (Guo, 2004: 371).

The escalation of health-care service costs in the 1970s prompted the formation of managed health care in the United States of America (Rivers & Tsai, 2001: 303). The government of the United States of America passed legislation to enable managed health-care organisations to be established. Managed health-care organisations were formed with the goal of containing escalating costs (Guo, 2004: 370). The managed health-care system later evolved to include managing access to the health-care services and standardising provision of healthcare services through the adoption of ‘best practices’.

Since managed health-care has impacted on the delivery of health-care service, it is important to investigate perceptions of health-care service providers as stakeholders in the system.

1.1.1 Managed health care

Hugo and Loubser (2005: 75) define managed healthcare as a "system implemented to enhance quality and at the same time decrease the costs associated with the health-care services". There are three parties involved in the managed health-care system, namely, the patients who seek treatment, the health-care professionals who provide services, and the managed health-care organisations who finance the services rendered by the health-care professionals. Managed health care can be roughly defined as an agreement between health-care providers, payers and patients whereby incentives or penalties are imposed to influence the utilisation of healthcare services. Hugo and Loubser (2005: 76) further elaborate that managed health care is "a management tool" used in private health care to manage the services rendered by health-care professionals.

The principle of managed health care is to standardise the services provided by healthcare providers and to reduce the costs associated with health care (Guo, 2004: 370). The reduction of medical costs enables patients to have access to health care while standardising the service and improving the quality of the services provided. Managed healthcare aims to reduce the variation of services rendered in health care through identifying efficient medical practices and also encouraging health care service providers to make decisions based on the guidelines provided by the medical associations.

There are three key features of health-care service delivery that the managed health care system aims to manage and optimise: access to health care, lower cost of health care, and improved quality of health care services rendered (Kongstvedt, 2004: 2) These three key features of health-care service delivery are achieved through integrating the health care service delivery models and financing models relevant to the healthcare system. For example, there are continuous analyses in the conduct of service delivery and constant evaluation of the utilisation of prescribed services to maintain control on health-care costs. There are penalties imposed if the health care provider does not adhere to the utilisation of services protocol (Kongstvedt, 2004: 2). Healthy members of the managed

health-care organisation also subsidise sick members through the pooling of risk. Kongstvedt (2004: 3) mentions that other techniques used by managed health-care organisations include promoting wellness, disease screening processes, patient education and patient self-care. Managed health-care organisations operate in two ways. Firstly, the healthcare service provider is contracted to the managed health care organisation to provide services to members of the managed health-care organisation. Secondly, the patient is contracted as a member of the managed health-care organisation where a degree of choice in health-care services and providers is offered to the patient at a determined fee. Managed health-care organisations charge patients, who are members, a predetermined monthly fee that entitles them to a defined, comprehensive set of services from a preferred health care services provider. However, if the patient seeks healthcare service from providers who are not preferred, the patient is liable for a portion of the cost of the service rendered by the professional outside the managed health-care network.

1.1.2 Managed health-care organisations

Managed health-care organisations can be seen as a third party to the health-care system as they are the funders of the medical costs or insurers of the patient's health. They pay the health-care provider on behalf of the patient for the services rendered. However, managed health-care organisations can also be seen as the fourth party in the managed health-care system as they can be administrators of the health-care funders or insurers. In this instance, the managed health-care organisation sells administrative skills to another managed health-care organisation that does not have the capacity to manage their own schemes. It is believed that the interference in the relationship between patient, service provider and payer has led to the controversial nature of the managed healthcare. Rothberg, Magennis and Mynhart, (1999: 54) confirm that during 1996 in South Africa, medical associations viewed managed health care as interference with business while medical practitioners themselves saw managed health care as interference with autonomy. The introduction of managed health care in South Africa had medical practitioners battling to cope as they had to deal with paper work required by managed

health care other than resolve patients' ailment at hand (Gotlieb, n.d.). Medical practitioners have negative perceptions about the implementation of managed health care with relation to professional autonomy and opine that managed health care will have a negative impact on the quality of patient care (Tietze, 2003: 312; Marnoch& Lian, 2002: 875).

1.1.3 Merck Sharpe & Dohme Pty Ltd

MSD Pty Ltd is the wholly-owned subsidiary of Merck & Co., Inc. Merck is a global research-driven pharmaceutical company dedicated to discovering and marketing medicines in over 20 therapeutic areas. Established in 1891, Merck discovers, develops, manufactures and markets vaccines and medicines to address unmet medical needs. The company devotes extensive efforts to increase access to medicines through programmes that not only donate Merck medicines, but help deliver them to the people who need them. Merck also publishes unbiased health information known as the Merck manual as a not-for-profit service to the medical practitioners (Merck, 2009). MSD employs 250 people in South Africa, and the company's head office and manufacturing plant are based at MSD Park in Sixteenth Road, Midrand. MSD's philosophy is to promote the value of innovative medicines, whilst playing a key role in the continued growth and transformation of the health-care sector.

1.1.4 Concluding comments

In summary, the managed health-care system means that patients get standardisation of health-care service delivery and that there will be uniformity in terms of procedures to be followed by health-care professionals. Patients will pay less or even minimal co-payments for the services they receive from healthcare professionals if they are contracted to certain managed health-care organisations. However, there is rigidity in terms of the patients' choice of the health-care provider and the patients are liable to pay expenses if they choose a healthcare provider that is outside the network of the managed health-care

organisation. It can therefore be concluded that managed health-care essentially revolves around the cost-effective provision of quality medical care. The role of the primary health-care professional also changes as he acts as a gatekeeper and a letter of referral is needed by the managed health-care organisation if the specialist intervention is required.

Stakeholders within the managed health-care system have different opinions on the system. These contradicting opinions have arisen from the different needs of the stakeholders. The health-care professionals believe that their autonomy of practicing medicine is compromised under managed health-care system, while the managed health-care organisations aim to standardise and to contain the health-care costs. It is therefore important to establish, through research, the perceptions that medical practitioners hold with regard to managed health care and its implications for patient care.

1.2 Problem statement

The provision of health-care services by a health-care professional in a third party system is subjected to a number of complexities. The interference in the relationship between the patient and the healthcare professional by the managed health-care organisation has contributed to the controversial nature of managed health care. Different stakeholders within the managed health care hold different opinions about the system.
The problem statement is that medical practitioners hold a view that managed health care limits their clinical autonomy and impede their ethical obligations, and will affect the quality of patient care.

1.3 Purpose of the research and objectives

The primary objective of the study is to investigate the perceptions of medical practitioners of managed health care and its implications for patient care.

The secondary objectives of the present study are as follows:

- To determine how medical practitioners believe managed health care affects their ability to deliver quality service to their patients
- To determine the perceptions of medical practitioners towards managed health care and their ethical obligation
- To determine the perception of medical practitioners on the ability of managed health care to control the cost of health care

Manage health care has been researched extensively in the United States of America and in Europe. The concept of managed health care has evolved in these parts of the world. Only a few studies have been conducted in South Africa to uncover the perceptions of the medical practitioners towards managed health care .The purpose of the research is to contribute to the current body of knowledge available in South Africa about the perceptions of managed health care and how managed health care influence the quality of patient care. The results of the study and available literature can help in reshaping the concept of managed health care to the satisfaction of all the stakeholders involved.

1.4 Brief outline of the literature review

Managed health care can be roughly defined as systems implemented by the organisations to reduce health care costs and standardise the provision of care. The concept of managed health care started in the USA as a form of prepayment for the services to be provided by the health-care professional to workers when the need arose. The managed health-care system then evolved to include the insurance company which then reimbursed the health-care professional for the services rendered. It is believed that the high cost of health care is what prompted the formation of managed health care.

Managed health care was introduced is South Africa to curb the increasing cost of health care provision in 1995. Its introduction was met with uncertainty from the stakeholders

with health-care providers believing that their professional autonomy was being undermined. It is not clear as yet whether managed health care has been successful in bringing the cost of health care down. Managed health-care organisations aim to reduce costs and standardised care by using two strategies, namely, systems management and disease management programmes. Different models implemented by the managed health-care organisations include: the HMO-staff model, HMO-group model, network model, independent practice association and preferred provider organisation. These models are the agreements that the managed health-care organisation have with the patients and the health-care professional. Based on the agreement, the patient will get a prescribed set of benefits for a monthly fee. The models differ in restrictions of the health-care professional and the scope of benefits to the patients.

It is believed that the advent of managed health care has brought forward ethical issues in the health-care system. One of the major ethical dilemmas is the respect of autonomy that is imposed by the managed health care. The doctor-patient relationship is also compromised by the interference of the managed health care. The doctor has to balance the needs of the patient and that of the managed health-care organisation. Managed health-care organisations offer financial incentives as positive reinforcement to health-care professionals for acceptable behavioural change, this is seen as obscuring the health-care professional from his duty to the patient. Some literature suggests that these ethical dilemmas have always been there and they have been brought up by the introduction of managed health care.

The strategies of managed health-care organisations have elicited different responses from different stakeholders in terms of their impact on patient care. There is no evidence that the cost of health care has gone down and the health-care providers feel that quality of care has been compromised in the managed health-care system. Managed health-care organisations believe that the protocols in place are standardising care and improving quality. Managed health-care organisations believe in efficiency, while the patient believes in effectiveness; both outcomes have different implementations and may be a source of conflict. Current literature in managed health care suggests that health-care professionals have a negative perception towards managed health-care

organisations as they believe that their professional autonomy has been undermined and the patients are not getting the quality of care they deserve. However, healthcare professionals who work for non-profit organisations hold positive perceptions of managed health-care systems.

1.5 Brief outline of the research methodology

The research approach of the study will be a quantitative research approach, which will be descriptive in nature. The sampling method to be used will be a judgemental, non-probability sampling method as the researcher is familiar with the relationships that exist in the study variables and also due to time and resources constraints. The population for this study is 150 medical practitioners serviced by MSD in the northern suburbs of Johannesburg. The sample size of the study will be the number of the respondents to the survey who completed the questionnaire in full.

The technique of collecting data for this study is a survey that will be conducted personally by the researcher and the instrument to be used will be a questionnaire. The questionnaire is a self-administered questionnaire written in English only. The questionnaires will be distributed and collected personally by the researcher. The Likert scale will be used to measure the perceptions of the medical practitioners.

Descriptive analysis of the study findings will be undertaken and statistical analysis will be used to determine relationships between the variables of the study problems. The statistical program to be used to analyse the data is IBM SPSS. The results of the study presented in a tabular and figure form to depict the different characteristics of the study sample. The results will be presented in percentages and central measures of tendencies.

1.6 Outline of the remaining chapters of the dissertation

The present study is divided into the following chapters:

Chapter 2 focuses on the literature review on the topic of the managed health-care system with emphasis on the managed health-care organisations, models implemented by the managed health-care organisations, role of the medical practitioners in the managed health-care system, the patient quality of care and the perceptions of medical practitioners of managed health care and perceived implications on the patient care.

Chapter 3 focuses on the research methodology and describes the instrument utilised, the population and sample, how the data was collected, the method of analysing data collected, and the ethical considerations.

Chapter 4 presents the results of the study.

Chapter 5 deals with the key findings and interpretations of the results and integrates the findings with the theory discussed in Chapter Two. The answering of the research questions and the recommendations are given. The chapter outlines suggestions for future research and concludes the study.

1.7 Concluding comments

In this chapter the background to the study was discussed. The need for managed health care in the health-care system was outlined and systems that managed healthcare use to control the costs without compromising on the quality of the service that is rendered by the professional, were also discussed. Different stakeholders in the health-care system have different needs and therefore hold different views on the impact of managed health-care systems, and it is perceived that the medical practitioners hold a negative perception on managed health care and how it has impacted the delivery of health-care services.

The purpose of the research, as well as the outline of the research methodology, was discussed and a brief outline of the literature review was presented. The full literature review will be conducted in the following chapter where the emphasis will be placed on managed health care and the models they use to control costs and improve quality of

care. Ethical issues surrounding managed health care will also be covered. Documented perceptions of medical practitioner will also be discussed.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter covers the health-care system in South Africa and provides a brief introduction of managed health care in South Africa and its origin. Managed health care's origin and evolution in the United States of America will also be discussed. Managed health care is thought to have originated in America and its success has attracted its adoption by other countries. This chapter also introduces the concept of managed health care, the managed health-care organisations, and introduces the different models used by the managed health-care organisations to reduce cost, control access to healthcare services, while also improving the quality of care in health-care services. The documented perceptions of medical practitioners with respect to managed health-care systems are also discussed in the chapter. There are ethical dilemmas that medical practitioners are facing in the advent of managed health-care systems, including respect of autonomy and doctor-patient relationship and these will be discussed in detail in this chapter. Implications of the managed health-care setting will also be discussed, and emphasis will be placed on the quality of patient care from the perspective of the service provider and managed health-care organisation.

2.2 Health care in South Africa

There are two health-care systems in South Africa, namely, private health care and public health care. In the private health-care system, patients pay for their own health care either through medical insurance or out of their own pocket. In the public health-care system, the state provides free health care to the patients who are unable to pay for their own health-care needs.

The majority of the South African population relies on the public health-care sector which has been under resourced and overused in recent years. A report suggests that 80% of the population use public health-care facilities while only 20% of the population use

private health-care facilities (South African Health Review, 2010). The private health-care services the middle to high income earners and there is a growing number of private health-care facilities to accommodate this growing segment of the population. Labour organisations predict that public health-care facilities are under pressure because of high unemployment rate in South Africa. Medical schemes are the main means to finance private health-care sector on South Africa. The South African Health Review of 2010, reported that medical insurance coverage is very limited in South Africa where only 16% of the population has cover. The rising cost of health care prompted the formation of managed care in South Africa during the nineties, managed health care in South Africa is regulated under medical schemes act no 131 of 1998.

2.3 Managed health care in the United States of America

Rivers and Tsai (2001:302) stated that the concept of managed health care was introduced in the USA during the beginning of the 19th century to benefit workers in the mines and the rail industries. Managed health care existed as a form of prepaid health plans where the labourers contributed money upfront for the health-care services to be rendered by the health-care professionals when they were needed. In the 1950s, the health-care system consisted of only the medical practitioner (who provided service to the patient) and the patient (who reimbursed the medical practitioner for the services that were provided).

The health-care system evolved in the 1960s to include the insurance company as a third party. The patient contributed part of his earning to the insurance company to cover against medical costs should the need arise. In this system, the medical practitioner would charge the insurance company for the services rendered to the patient. Then the medical practitioner would be reimbursed by the insurance company from the funds contributed by the patient (Rivers & Tsai, 2001:302). Rivers and Tsai (2001:302) further postulated that the medical practitioners received full reimbursements for ‘usual and customary’ services.

In 1973, the HMO Act became public law in United States of America, start-up funds and loans were made available to entities that wanted to establish themselves as health maintenance organisations (Rivers & Tsai, 2001: 303).

In the early 1990s, managed care appeared to be doing well for the health-care system as the health-care costs were under control (Pierce, 2005: xxiv). However, the perceived benefits of the managed health-care system began to wane near the end of the decade. Pierce (2005: xxiv) mentions that this was due to the fact that in the managed care system, the costs were merely redirected within the system and did not solve the problem. Dranove, Lindrooth, White and Zwanziger (2008: 362) argue that the factor that contributed to increasing health-care costs within the managed health-care system was selective contracting, as managed health-care organisations received price discounts from health-care professionals.

Dranove *et al.* (2008: 362) note that in the late 1990s and early 2000s, questions were being asked about the ability of managed health-care organisations to control costs as the costs were again increasing. Selective contracting did not yield expected results in the end. Scott, Carrese and Carrese (2001: 71) confirm that the health care environment in the USA has transformed from the fee for service system to that of managed care. The transformation has led to managed care being the dominant health-care system in the USA in recent history (Scott *et al.,* 2001: 71). The transformation was due to efforts to curb spiralling health-care costs and also to improve health-care quality. Herzelinger (2010: 105) emphasises that the new revolution in the health-care industry in the USA health care evolved because the financing of health care, technology and consumer preferences have not enabled managed health care to contain the costs as it was initially intended.

2.4 Managed health care in South Africa

Marnoch and Lian (2002: 870) note that due to globalisation, policies, programmes and institutions move freely between countries around the world. The pressure of international organisations influences the adoption of policies developed elsewhere in the world by the governments of other countries. This is seen in multinationals operating in many countries adopting the same policies and procedures as those of the mother companies in home countries. The managed health-care is not an exception as from the nineties, managed health-care policies derived from USA were adopted in many parts of the world (Marnoch & Lian, 2002: 870).

The concept of managed health care was introduced to South Africa in the middle of 1990s. The model was adopted from the USA where, at the time, it claimed success in controlling costs (Rothberg *et al.,* 1999: 53). It was at the implementation phase of the model that problems came to the fore. The model was criticised for not being suitable for conditions of a developing country, and that it was confusing both the health-care providers and the managed health-care organisations (Rothberg *et al.,* 1999: 55).
Rothberg *et al.* (1999: 55) further note that the introduction of the managed health-care system in South Africa coincided with the arrival of information technology, websites and the internet. Disgruntled American providers and consumers posted their negative views and publicity on the internet. These views were accessed by South Africans and fuelled confusion between managed health-care organisations and health-care providers.

Upon the introduction of the managed health-care system in South Africa, different stakeholders had different opinions about managed care systems (Rothberg *et al.,* 1999: 55). Health-care professionals view managed health care as interference with business, while patients see it as a limitation of choices. The managed health-care organisations view the system as a tool to homogenise and improve access, quality and affordability of healthcare. These different opinions arise from the different needs of the stakeholders. Patients need their illness to be cured with many means necessary, the healthcare professionals want to treat the patients how they see fit and also get adequate professional income. Managed healthcare organisations, on the other hand, want to reduce the cost of quality care. Rothberg *et al.* (1999: 55) believe that the success of managed healthcare lies in the teamwork of all stakeholders. If these stakeholders are

just looking at their own interests, the implementation or even the model itself may be rejected before it gathers momentum.

Gotlieb (n.d) further mentions that managed health care was perceived as an assault to the profession as the reduction of fees for services was imposed on the professionals. Gotlieb (n.d) states that implementation of the managed healthcare in South Africa raises concerns from health-care providers because there were new things they needed to work on, including the use of algorithms, adherence to treatment protocol and co-payment collections from patients, besides looking at the health of the patient in sitting front of them. The meddling in the relationship between patient, service provider and payer has led to the controversial nature of the managed health care (Rothberg *et al.,* 1999: 55).

According to the General Household Survey 2009 (Statistics South Africa, July: 19), 24.3% of South Africans have at least one member belonging to a medical aid scheme and only 16.9% of individuals have coverage from the medical aid schemes. This translates into only 8 million individuals having had coverage out of a population of 49 million. Hugo and Loubser (2005: 76) note that about 16% of the population in South Africa have access to private health care through medical insurance. There is a small percentage of patients that pay cash for services offered by private health-care providers. According to the General Household Survey (2009), Western Cape and Gauteng have the highest number of medical aid membership with 25.5 % and 26.6% respectively. Hugo and Loubser (2005: 76) report that since 2001, medical inflation has exceeded the Consumer Price Index every year with annual increase of 23.4%. This shows that the increase in health-care expenditure has been spiralling out of control in South Africa. It is for this reason that cost containment has become a priority in the health-care policy of many countries (Lazaro & Azcona, 1996: 186).

2.5 Managed health care defined

There is no single definition of managed health care and all definitions incorporate a prepaid system for health care cover (Marnoch & Lian, 2002: 870; Rivers & Tsai, 2001: 302). Ament (2005:368) defines managed health care as a "system of health-care

delivery aimed to control rising cost while regulating access and quality". Hugo and Loubser (2005: 72) further elaborate that managed health care is a "series of management interventions aimed at promoting appropriate and necessary care at a cost which is affordable to the consumer". Conger (1999: 24) loosely defines managed health care as any arrangement among health-care providers, payers and patients that offers incentives or imposes penalties to influence the utilisation of medical services. Kongstvedt (2004: 1) says that managed health care is more than "a set of processes and attributes" and comprises of health plans that exist with different degrees of health-care management and cost that a patient may choose.

The managed health care is seen as a third party involved in the health-care system which previously included only the medical practitioner and the patient. In fact, the lowering of health-care costs and enhancing of quality are achieved by 'managing the health-care providers' (Hall, 1997: 200). However, if there is a lack of expenses control between the health-care service provider and the patient, then the introduction of managed health care is necessary to the health-care system (Rivers & Tsai, 2001: 302). It is argued that rewarding of health-care professionals based on the volume of services rendered is seen as a 'wrong incentive' (Kongstvedt, 2004: 4). The health-care professional will earn more for more procedures done and thus encourage overutilisation of medical resources (Anderlik, 2001: 11). However, the managed health-care system is also needed to cover against exceptionally high medical costs in the cases where patients undergo extensive medical procedures and the cost becomes subsequently high (Conger, 1999: 25).

A health-care maintenance organisation (HMO) or a managed health-care organisation is an organisation that provides "comprehensive healthcare services to a voluntarily-enrolled group for a prepaid fee" (Guo, 2004: 371; Fairfield, Hunter, Mechanic & Rosleff, 1997: 314). Scott *et al.* (2001: 71) elaborate that managed health-care organisations operate by charging members of the organisations a monthly fee determined upfront that entitles them to an identified, wide-ranging set of services. That means that the organisation takes over the financial risk and transfers some of the risk to the health-care professionals (Fairfield *et al.,* 1997: 314). The managed health-care organisation provides

low cost health care with increased efficiency by effectively managing the health-care system (Conger, 1999: 240).

In principle, the managed health-care organisations aim to improve the quality of health-care services, regulate access to healthcare and reduce costs associated with the health care services and treatment. Conger (1999: 25) identifies three strategies implemented by the managed health-care organisation to achieve their goals:

Healthcare services are provided in the least costly but appropriate environment. Members of the managed healthcare organisation have early access to the healthcare for an early intervention and thus avoid more intensive costly care later. The managed healthcare organisation has a wide spectrum of healthcare services to render to prospective members in order to satisfy all their medical needs.

The managed health-care organisation's goal to reduce variability in health-care delivery and to improve quality of services provided is attained by identifying efficient health-care practices and promoting adherence to the guideline-based decision making (Rivers & Tsai, 2001: 302). Scott *et al.* (2001: 71) conclude that in this system, primary care health professionals are encouraged in many ways to do less and to keep the patients well. Guo (2004: 371) further states that the managed health-care organisations are able to control costs through utilisation of service management, offering incentives to health-care providers, and restricting access to health-care providers. Hall (1997: 201) argues that this corporate goal of providing care at lowest possible price is not providing high quality health-care to the patients.

The managed health-care organisation attains the cost-effective provision of quality medical care by implementing health care cost effective plans, enforcing clinical guidelines on health care providers and reimbursement mechanisms for the services rendered by the health-care professional. However, the critics believe that managed health-care organisations do not embrace new technologies, meddles with patient and doctor relationships, and restrict clinical research (Hall, 1997: 200). These inventions have escalated the cost of health care in the first place.

2.5.1 Dimensions of managed health care

Rivers and Tsai (2001: 304) mention that several strategies that managed health-care organisations use can be roughly defined as "utilization management and disease management". The dimensions of managed health care aim to deliver quality health-care services while keeping the cost of health care down and these dimensions include systems management and utilisation management (Fairfield *et al.,* 1997: 314).

2.5.2 Systems management

Systems management is about policy administration and one of the strategies used by managed health-care organisations is utilisation management (Fairfield *et al.,* 1997: 314). Sharfstein (1990: 965) defines utilisation management as a set of techniques implemented on behalf of patients to influence the decisions of the health-care provider. Utilisation management seeks to reduce health-care costs by avoiding unnecessary hospital admissions and to minimise the length of stay of a patient in a hospital (Fairfield *et al*., 1997: 314). Utilisation management revolves around concurrent and prospective screenings to evaluate if services are necessary and if the services are delivered at the right level (Rivers & Tsai, 2001: 304). Pre-authorisation of inpatient admissions, or the use of costly procedures and continuous review of the length of stay of patients in a hospital or use of expensive treatment are some of the techniques of utilisation management (Fairfield *et al.,* 1997: 314). The emphasis of utilisation management is on individual as appropriateness of care is managed case-by-case (Sharfstein, 1990: 965).

After authorisation, the utilisation manager monitors the inpatient stay to ensure earliest possible discharge (Fairfield *et al.,* 1997: 314). Sharfstein (1990: 966) highlights that the role played by the practitioner is vulnerable to the influence by utilisation management. A study showed that the utilisation management's impact on total costs is not clear, but the in-patient hospital use has declined (Sharfstein, 1990: 966)

2.5.3 Disease management

Early access to health care ensures that the condition does not worsen, which will require costly care. Disease management reduces or minimises the episodes of care associated with a particular disease by applying efficient practices (Rivers & Tsai, 2001: 304). Effective disease management strategies are based on the guidelines and the application of guidelines in disease treatment (Fairfield *et al.*, 1997: 314). Disease management does not only mean clinical guidelines, but also patient self-management, disease registry and feedback of performance to health-care providers (Fireman, Bartlett & Selby, 2004: 63).

The study by Fireman *et al*. (2004:64) found that there was improvement with the clinical outcomes of patients, but there was no cost savings in terms of the chronic management of the disease in patients with coronary heart disease. The dementia guideline-based disease management programme led to improvement in the quality of care for the patients with dementia (Vickrey et al., 2006: 725). The improvement in the usage of effective disease management is not cost effective unless the recommended therapy is cheaper (Fireman *et al*., 2004:73).

2.5.4 Managed health care models

A desired outcome of a managed health-care organisation is to provide health care at a low cost with increased efficiency by using effective management tools (Conger, 1999: 25). Managed health-care organisations have two main arrangements with patients and health-care providers. Firstly, the health-care service providers can be contractually tied to the managed health-care organisation. Secondly, patients can be offered a degree of choice from a service provider if patients themselves are contracted to the managed health-care organisation. Kongstvedt (2004: 43) further mentions that the system either integrates healthcare professionals or health-care professionals and facilities like hospitals. Conger (1999: 27) elaborates that the difference depends on the agreement between the health-care organisation and other healthcare services like laboratories,

outpatient facilities and acute-care hospitals. The best known managed health-care structure is the health maintenance organisation-the HMO, which varies in terms of the degree of control over the health-care providers and the patients who are members of the organisation (Kongstvedt, 2004: 29).

2.5.4.1 The HMO- Staff model

In the HMO-Staff model, medical practitioners are directly employed by the managed health-care organisation and can only provide services exclusively to members of the managed health-care organisation. The health-care providers are paid a salary and may receive incentives from the managed health-care organisation for the effective implementation or utilisation of services (Kongstvedt, 2001: 34). This model is also called a 'closed panel' model because only medical practitioners employed by the managed health-care organisation can participate in the provision of health-care service. Patients who are members of the managed health-care organisation can only use these preferred health-care providers (Kongstvedt, 2001: 34; Conger, 1999: 27). Conger (1999: 27) elaborates further that the utilisation review practices are effective because they are tightly controlled by the managed health-care organisation as providers are employees of the organisation and the incentives are used to encourage providers to adhere to policies. However, this tight control of health-care providers discourages potential members as the choices of service providers are limited and the depth of services rendered is limited. The potential members may not join if their medical practitioner is not a member of the managed health-care organisation.

The staff model has an advantage over other models in managing the delivery of health-care services because of the tight control that the managed health-care organisation has on the health-care service providers (Kongstvedt, 2001; 35). This makes it easier for the managed health-care organisation to manage the utilisation of health-care services. The big benefit of this model to members is that the model provides a 'one-stop shop' as members of the organisation can have a wide range of services provided under the same roof. Conger (1999: 28) argues that the model is not suitable for rural areas as the scope

of services offered may be limited and members may have to source external service providers with serious cost implications.

The ability of this model to contain the costs rests on the services rendered by the managed health-care model to members. However, the ability to control the costs is compromised if the member has to source the service from external service providers as the managed health-care organisation has no control over the charges by external service providers. Kongstvedt (2001: 35) points out the disadvantages of the staff model as being more costly to develop and implement as the membership is small and the managed health-care organisation has to incur fixed cost of salaries to the staff health-care providers and supporting staff. Kongstvedt (2001: 35) further mentions that many staff models have experienced productivity difficulties with the staff health-care professionals who have raised their costs for providing health care.

2.5.4.2 The HMO- Group Model

In the HMO-Group Model, the managed health-care organisation enters into contracts with independent and multispecialty groups of medical practitioners, establishing a partnership or professional corporation to provide the medical services for group members. These groups of medical practitioners are paid on an agreed fee (capitation) by the managed health-care organisation and the group themselves pay medical practitioners and hospitals they utilise. The practitioners in the group practices are not employed by the managed health-care organisation (Kongstvedt, 2001: 35). In other cases the practitioners are allowed to render their services to non-members of the organisation. Conger (1999: 29) elaborates that the degree of control over the services rendered in this model is similar to that of the staff model. If there is an arrangement that enables the practitioner to service non-members, then there is a lesser degree of control in the utilisation of services.

The advantage for the managed health-care organisations is that they don't have to pay money to start up practices as that responsibility will be that of provider groups

(Kongstvedt, 2001: 36; Conger, 1999: 29). Other advantages are similar to that of the staff model. The HMO-Group model provides a limited choice of health-care providers to the members of the organisation. The members of a managed health-care organisation still have limited choices like a staff model as they can only utilise medical practitioner groups affiliated to the organisation (Conger, 1999: 29). The limited choice of medical practitioner choices can be a disadvantage when it comes to the marketing of the model. Kongstvedt (2001: 36) argues that the perceived high quality of a multispecialty group of healthcare providers can entice the potential members to join the group model.

2.5.4.3 The Network Model

This model is seen as being a less restrictive arrangement between the health-care providers and the patients (Conger, 1999: 29). In a network model, the managed health-care organisations enter into a contract with more than one group of medical practitioners to render services to group members. In this system, selecting a multidisciplinary provider group offers an advantage because the coverage they will provide to the patient member will be broad (Conger, 1999: 29).

The advantage of the network model is the marketing appeal of having groups of multispecialty healthcare providers affiliated to the managed health-care organisation. The group is liable to provide all the service to the managed health-care organisation's members assigned to that group. If the outside referral is required, the group will be financially liable to reimburse the external health-care service provider consulted (Kongstvedt, 2001: 37). The network can either be closed or open panel which shows more flexibility than both the staff and group models. A closed panel network model enters into an agreement with only a limited number of existing groups of health-care professionals. The open-panel network model is open for any health-care provider that meets the managed health-care organisation criteria.

The managed health-care organisations can contain cost by giving a set amount of funds per member to the medical provider group. If the outside group referral is needed by the

patient, the provider group can absorb the cost through capitated funds. Pre-authorisation is usually required if the patient utilises health-care facilities such as hospitals, and this enables the managed health-care organisation to maintain control over the health-care facilities.

2.5.4.4 Independent Practice Association

This is the least restrictive agreement between the managed health-care organisation and the medical practitioners, as the practitioner can service both members and non-members of the managed health-care organisation (Conger, 1999: 30). The medical practitioners form an independent association that is then contracted to the managed health-care organisation. The medical practitioners still run practices individually and retain their own offices and the support staff. The Independent Practice Association is an open panel plan as any medical practitioner who meets the managed health-care organisation criteria can join the organisation (Kongstvedt, 2001: 37). It is the responsibility of the Independent Practice Association to recruit a broad range of health-care service providers to service both the members and non-members of the organisation. Each individual practitioner provides services in return of an agreed fee (capitation) or a fee-for-service from the Independent Practice Association, depending on the agreement between the two parties.

Kongstvedt (2001: 38) mentions that the Independent Practice Association models overcome the challenges of the staff model, the group model and even the network model as they require less money to start up and operate. Therefore, the Independent Practise Association has a marketing appeal to the potential members of the organisation. Conger (1999: 30) states that this system is the most challenging in terms of controlling the costs and implementing the utilisation of the services as the health-care providers still remain individual practitioners with minimal sense of belonging to a managed health-care organisation. Therefore, the relationship between parties can be strained. This is, though, an attractive model for members as they will have a broader choice of service providers to choose from. This model is perfect for the rural areas where the number of members

is low and there is no need to have a permanent managed health-care organisation. Managed health-care organisation can enter into contracts with independent medical practitioners to service its members (Conger, 1999: 31). Fairfield *et al*. (1997: 314) mention independent practice association as the fastest growing form of HMO together with the network model.

2.5.4.5 The Preferred Provider Organisation

In the Preferred Provider Organisation (PPO) managed health-care organisations have a contract with different medical practitioners to service its members. A PPO comprises of a network of medical practitioners and hospitals that will provide the service at discounted rates to its members. If members utilise these preferred providers, they are charged less, if anything at all (Fairfield *et al*., 1997: 314). However, members will not be assisted financially if they chose a provider outside the network. That is, members are not forced to use the preferred providers, but are encouraged through incentives or discourage by disincentives (Fairfield *et al*., 1997: 314). The PPO model is a fee-for-service in which members of the managed health-care organisation are provided with healthcare services from contracted service providers. The model comprises of independent health-care providers and hospitals that provide service at an agreed discount rate. The health-care providers are guaranteed an increased patient load in return for discounted rates (Conger, 1999: 31). Participating providers are still allowed to practice privately as well as servicing the group members. It is also challenging in this system to control the utilisation management practices as the members of an organisation have a broad spectrum of choices from a health-care service provider's perspective. The pre-authorisation of services system is used to control the costs as the utilisation management practices cannot be tightly contain the costs.

2.5.5 Concluding comments

In this section, a brief history and origin of the managed health-care were covered. Both in South Africa and in America, the managed health-care has evolved from being two dimensional with the patient and service provider to include the financer or insurer. South Africa adopted the managed health-care models as they are in America and these models elicited different perspectives from different stakeholders, with healthcare practitioners arguing that the success of these models was not evident. Different dimensions of the managed health care were discussed and these dimensions are now working together to ensure that the service offered by the health-care professional is standardised, and that the patients are managed effectively and efficiently. Systems management is more of a policy, while utilisation management is the implementation of the system management policy. Managed health care has different models that they implement to ensure that both the patients and the medical practitioners work together towards better health. These models differ in their restrictions of the health-care practitioners contracted to them and to the scope of benefits which individual patients are entitled to. For example, the HMO-staff model is the strictest model where only members of the managed health-care organisation are serviced by the contracted medical practitioners. The HMO-group model offers the best convenience to the members as they get all their medical needs under one roof. The less restrictive model is the Independent Practice Association as the medical practitioner can service both the members and non-members of the managed health-care organisation. However, this model is one of the most difficult to control costs as medical practitioners have no entrenched sense of belonging to managed health-care organisations. The dissatisfaction that is seen with the patients in different managed health-care organisations, stem from misunderstanding from the patients of their scope of benefits in different models. It is believed that patients do not really understand the rules of managed health-care organisations before they join and only realised when they have joined that their medical needs may not be met in full. The different views of medical practitioners on different models come from the level of control of the managed health-care organisation. The stricter the model, the more the medical practitioners feel that their professional autonomy is undermined and too much emphasis is placed of saving costs instead of providing quality care.

2.6 Ethical dilemmas in managed health care

2.6.1 Introduction

This section briefly introduces the concept of ethics and the ethical decisions that the health-care provider has to face in the managed health-care environment. These ethical considerations will also be discussed in a fee-for-service environment. Key topics to be discussed under ethics will be the respect for autonomy, the doctor-patient relationship, freedom of choice, confidentiality and financial incentives.

Ethics can be defined as a set of values, principles and beliefs that guide the lives of individuals (Anonymous, 2003a: 494; Lazaro & Azcona, 1996: 188). The Hippocratic Oath obliges the health-care professional to keep patient medical information confidential, avoid mischief and not to harm the patient. This shows how imperative trust is to the patient and doctor relationship (Health Professions Act, 2006; Hall, 1997: 201). Section 27a (a) of the Health Profession Act (1974) further states that a practitioner shall at all times "act in the best interest of his or her patient" and 'respect' the confidentiality, privacy , choices and dignity of his or her patients.

2.6.2 Medical ethics in a fee-for-service system

Meyers (1999: 382) states that in a fee-for service system, ethical concerns arise from the conflict of interest and conflict of bias. In addition, in a fee-for-service, emphasis is placed on sick patients instead of promoting wellness, and there is a financial incentive for physicians to overtreat the patients. There is no oversight on the part of practitioners and the quality of care they provide (Fang & Rizzo, 2010: 86). The responsibility of the insurance companies is to reimburse the provider and not aim to improve the health of the member (Eastman, Eastman & Tolson, 2001: 210).

2.6.3 Medical ethics in managed health care

It is argued that managed health care is about rationing, which in itself is not considered an ethical issue (Strech, Persad, Marckmann & Danis, 2009: 114). However, the controversy appears on the "value judgements of limits of rationing" (Anonymous, 2003a: 494).The introduction of managed health care has not introduced any new ethical concerns that did not exist before (Polivka, 2000: 132; Meyers, 1999: 384). The conflict of interest has always existed, as benefit from relationships with pharmaceutical representatives represent material gain. Meyers (1999: 385) concluded that the underlying ethics have not changed, even though managed health care has brought new elements to the medical decision making. The spotlight of managed health care on the patient and professional relationship was the unintended benefit of managed health care, which benefited the patient. The autonomy was, however, the sacrifice (Polivka, 2000: 133). Trust between the medical practitioner and the patient has been eroded by all the ethical dilemmas under managed health care (Eastman *et al*., 2001: 212). And that affects the quality of the relationship between the patient and the healthcare practitioner.

Researchers believe that there should be a search for a ‘new ethic’ as there is more prominence on controlling the costs and there is an increased call for accountability from the health-care practitioner (Anderlik, 2001: 4).

2.6.4 Respect for autonomy

Autonomy in this case indicates that the patient must be sufficiently informed about his or her condition and their decision regarding treatment must be respected (Lazaro & Azcona, 1996: 190). The decision-maker in this case is the patient (Gillon, 1994: 184). It is argued that in most cases, the patient is not well informed and the decision will often be in the hands of the practitioner (Lazaro & Azcona, 1996: 190).

A medical practitioner must promise that medical information will be kept confidential and that undertaking also represents respect for autonomy. Without that promise, the patient

will not disclose private and sensitive information (Gillon, 1994: 184). However, patient autonomy does not guarantee the right to have all treatment choice available to be funded (Anonymous, 2003b: 578). Limit may be set in order to provide health care to other members.

2.6.5 Doctor-patient relationship

Mutual trust is the pillar of the relationship between the patient and the professional (Hall, 1997: 200; Gillon, 1994: 184). Trust is about keeping patient information confidential, avoiding mischief and not giving patients harmful or death-causing agents (Anonymous, 2003a: 494). Health-care professionals are also trusted to serve the needs of the patients. The managed health-care system demands medical practitioners to be the advocates for both the patient and the managed health-care organisation (Anonymous, 2003a: 494; Anonymous, 2003c: 656).

There are many critics arguing that managed health-care interferes in the relationship between patients and health-care providers (Melichar, 2009: 906; Tietze, 2003: 312; Hall, 1997: 201). It is believed that the health-care practitioner has to balance the interests of the patient at hand will the interests of other patients when it comes to the allocation of resources (Anonymous, 2003a: 494). Hall (1997: 201) further emphasises that the health-care professional must make decisions that do not ‘adversely affect’ the health of the patient. Furthermore, it is not clear that the health-care professional can be the advocate of a patient's needs under managed health care (Wolinsky, 1995: 1499). The financial interests of the medical practitioners are in conflict with the healthcare of the patients due to incentives and disincentives (Anonymous, 2003a: 494; Rivers &Tsai, 2001: 302). It is further postulated that patients may not know that their health-care interest conflicts with the medical practitioners' financial interests (Anonymous, 2003b: 578).

2.6.6 Freedom of choice

Patients have the right to make informed decisions about medical schemes that are offered to them (Gotlieb (n.d). The managed health-care system tends to decrease the choice of patients due to a panel of practitioners and the limit on treatment options that are offered to the patient who is a member of the health-care organisation (Anonymous, 2003b: 578). The less the degree of choice for patients, the less expensive the product is. That in itself tempers with patient autonomy. It must be highlighted that the patient also has the responsibility to abide by societal decision to conserve health care and also make individual effort to use the resources carefully and live a healthy lifestyle (Anonymous, 2003b: 578).

2.6.7 Confidentiality

Patients have the right to complete and accurate information regarding the condition of their health and treatment options available. The obligation of the medical practitioner to disclose treatment should not be changed by the limitation on the coverage provided by the managed health-care organisation (Anonymous, 2003b: 578). But a study by Fang and Rizzo (2010: 102) suggested that practitioners are changing their behaviour based on what managed care approves.

Clear policies and guidelines regarding the access, storage and disposal of medical information should be established. Third parties should only receive information with the express consent (usually written) of the patient (Anonymous, 2003b: 578).

2.6.8 Financial incentives

Managed health-care organisations create the desired behaviour from medical practitioners by offering incentives or disincentives (Kongstvedt, 2004: 406; Anonymous, 2003b: 578). This can obscure the health-care practitioner's primary duty to the patient. It is argued that financial incentives are permissible if they promote the cost-effective delivery of health care, and not when it comes to withholding necessary care (Anonymous, 2003b: 578; Eastman *et al.,* 2001: 211).

2.6.9 Concluding comments

There is an ethical dilemma that now faces medical practitioners in the advent of managed health care. Literature does however mention that these ethical dilemmas have always been there and that managed health care has helped to uncover them. There is an overwhelming evidence that medical practitioners have to navigate through these ethical issues in order to give their patients what they perceive as quality care. Medical practitioners are guided through their daily activities by the Hippocratic Oath and they feel that managed health care is now making it difficult for them to practise it. However, this proves to be a contentious issue as managed health care believes that their systems aims to treat more patients effectively and thereby prolonging the lives of many people.

2.7 Health care costs under managed health care

Literature suggests that managed health care was introduced to curb the rising cost of health care in a fee-for-service system (Dranove et al, 2008:362; Pierce, 2005: xxiv; Guo, 2004: 371; Rivers & Tsai, 2001: 302). It is believed that the contributors of the rising health care costs include the high cost of health technology, ageing populations and new drugs, such as biologicals amongst other things (Pierce, 2005: xxv; Rivers & Tsai, 2001: 303). Another study cites that the general inflation and inflation of medical services that is higher than the inflation is responsible for rising costs (http://www.ahrq.gov/research). Hugo and Loubser (2005: 76) report that since 2001, medical inflation has exceeded the Consumer Price Index every year with annual increase of 23.4%. Also the there is an increased use of health care by all age groups (http://www.ahrq.gov/research). In South Africa, the number of beneficiaries registered to medical schemes increased from 6.7million in 2000 to 8.1million in 2009 (Council of medical schemes annual report, 2009/10: 164). This is an increase of 21%. The report also show that the average age of the beneficiaries was increasing, 6.5% of the beneficiaries were above the age of 65 in 2009.

In South Africa, it is believed that the high hospital costs and the disease burden of noncommunicable diseases as well as HIV/AIDS pandemic is also increasing the cost of health care (www.mg.co.za/article)

According to the Council of medical schemes 2009/10 annual report, the health care expenditure to all health care providers amounted to R76.3 billion in 2009. Hospital expenditure accounted for 37% of the total expenditure (R28.3 billion). The private hospital expenditure was R28 billion and provincial hospital expenditure was R300 million. The report also showed that in 2009, the expenditure on private hospitals has increased by 109% to R28 billion from R13.4 Billion in 2000. The expenditure of medical specialists also increased by 90% in the same period while the expenditure on medicines only increased by 10%. The expenditure on general practitioners increased by 54% between the year 2000 and 2009.

The annual report of 2012/13 of Council of medical schemes, stated that the total expenditure on all health care providers amounted to R103.3 billion in 2012. The private hospitals accounted for 37% of the total expenditure. The total expenditure on medicines amounted to 15% of the total spend. The report further states that the proportion of expenditure on managed care (out-of-hospital) was R2.2 billion in 2012.

In the United States of America, the health care costs showed the lowest percentage increases of 3.3% annually between 1994 and 1998. The hospital and physician expenditure showed a halt in annual increases but the medicines increased by 7% in 1994 to 12% in 1998 (Sekhri, 2000: 836). This shows that managed care had an impact of halting the rising cost of health care in the USA at the time. After the slowdown between 1993 and 2000, the health care expenditure increased by 8.5% in 2001 and 9.3% in 2002 (Bodenhelmer, 2005: 847). The US government project the cost of health care to rise from $1.6 trillion in 2002 to $3.6 trillion in 2013 (Bodenhelmer, 2005: 847).

In 2000, World Health Organisation bulletin, report that 60% of the consumers believed that managed health care has not contained the cost of health care and managed health care is responsible for the ever increasing costs of health care (Sekhri, 2000: 835).

The way private health care is structured is also seen as the main driver of increasing costs (www.mg.co.za/article). The structure permits over-servicing, entrenches fraud and the incentives between funders and providers are not aligned to ensure quality service is rendered.

2.8 Managed health-care implications for patient care

2.8.1 Introduction

This section covers the implications of managed health care towards patient care. Emphasis will be placed on the role of the medical practitioners in managed health care and to the quality of patient care. The role of medical practitioner has changed to that of the gatekeeper, as they have to motivate if the patient requires a specialist intervention. On the other hand, quality of medical care is an ambiguous and there is no single reference that explains what quality of care entails. Different stakeholders have opposing views of what quality care constitutes. These views will be covered in depth in this section.

Managed health-care organisations use the utilisation management and disease management as key strategies in containing the costs and maintaining quality. Managed health-care organisations also aim to regulate access to the healthcare system. It is very difficult to find balance between cost, access and quality. Patients might not be able to afford optimal cost and quality. Regulation of access to health care might provide cost containment and not necessarily provide good quality. Managed health care therefore has to strike a balance between these trade-offs. Hugo and Loubser (2005: 76) argue that the patient's need to resolve the ailment using whatever quantity of resources is needed, might negatively affect cost and access. Rivers and Tsai (2001: 307) conclude that the saving of costs in managed health care is more of ‘societal saving’ rather than medical practitioners' saving, and the patients do pay for their medical costs in the long term. Guo (2004: 371) argues that the managed health-care system is too limiting for the patients as they have to utilise healthcare providers within the network and if they seek services outside the network, they receive no financial assistance and have to bear all

the costs. Simonet (2005: 425) states the lack of choice of health-care providers by members of the managed health care as the major cause of dissatisfaction among patients under managed health care.

The disease management strategy utilised by the managed health-care organisation is based on adherence to clinical decisions based on the clinical outcome data (Rivers & Tsai, 2001: 304). The strategy places emphasis on the coordinated and systematic "comprehensive care along the continuum of disease and across health-care delivery systems". Conger (1999: 24) notes that the continuum must cover from high intensity acute care to health promotion and disease prevention services.

Traditionally, the managed health-care system is based on retrospective intervention and the primary focus is to contain costs. However, the system has evolved into a concurrent and prospective intervention (Hugo & Loubser, 2005: 76). This proactive approach encourages preventative care from patients and health-care providers (Tietze, 2003: 312).

For the managed healthcare organisations to realise their objectives, all the role players in the managed healthcare system must put the overall needs of the managed healthcare system above their own individual needs. Hugo and Loubser (2005: 78) suggest that a "more complex management strategy is needed instead of the traditional cost management approach". Evidence has emerged that there is a widespread criticism by both the medical practitioners and the patients on the restrictive nature of the managed health care (Fang & Rizzo, 2010: 86).

This section looks at the implications of managed health care towards patient care, discussing the role of medical practitioners, the quality of patient care and the perceptions of medical practitioners of managed health care.

2.8.2 Impact on patient care

The aim of managed health care is to manage access to health care, control health care cost and uphold the quality of health-care delivery using effective management tools (Hugo & Loubser, 2005: 76; Guo, 2004: 370). There is an argument by Gotlieb (n.d) that optimal cost and quality can be expensive for patients, while limiting access can decrease the cost of health care but not provide good quality. The interaction of the three parties in the managed health-care system raises concerns as the different stakeholders have contrasting opinions about the managed health-care system (Rothberg *et al.,* 1999:55). Tietze (2003: 312) mentions that the managed health care has affected the structure of patient and health-care provider relationship because now the focus is on reducing cost rather than improving quality. The health-care practitioners now have to consider costs when they are outlining the treatment for the patients and can only treat what the managed health care will cover. The patients are also reluctant to pay for services out of their own pocket while they are contributing monthly to the managed health-care organisations.

The role of primary health-care professional also changes as he acts as a gatekeeper and the letter of referral is needed by the managed health-care organisation if the specialist intervention is required (Scott, Carresse & Carresse, 2001:71). The health-care providers now have paper work overload and documents that need to be completed and forwarded to the managed health-care organisations for reimbursements.

A study by Melichar (2009: 906) concluded that medical practitioners make medical decision based on the reimbursement by the managed health-care organisation. If the managed health-care organisation is not reimbursing for treatment, then the medical practitioner has to find alternative treatment that will be covered by the managed health-care organisation. This implies that the patient may not get the best possible treatment as managed health care may not reimburse. Rothberg *et al.* (1999: 56) mention that there are cases of success in South Africa, but note that even though the number of hospitalisations has declined, the cost per hospitalisation has increased dramatically. The introduction of hospital pre-authorisation, chronic medication management, and the removal of out-of-hospital benefit did not help to contain the hospitalisation costs.

According to the Council of Medical Schemes Annual Report (2009/10), hospitals account for R28.3 billion of the R78.3 billion paid out to all health-care service providers. The expenditure at private hospitals, between 2009 and 2010, increased by 18.1% to R28.0 billion compared to public expenditure on provincial hospitals that increased by 28.1% to R288.9 million.

2.8.3 Role of medical practitioners in managed health care

Hugo and Loubser (2005: 75) argue that since managed health care represents a collection of interventions, it is probable that these interventions will "provoke responses which either support or counter the objectives of the intervening parties".

The basic service that is provided by the health-care practitioner is to improve the patient's quality of life (Eastman *et al.,* 2001: 213). The process of delivering service to the clients (patients) is regulated through a code of conduct. The healthcare professional takes the patient's history, does a physical examination and based on both, he will then devise an action plan on how best to address patient complaint.

Scott *et al*., (2001: 71) state that the medical practitioner has, traditionally, been the sole trustee of patients' welfare, making all care decisions that would benefit the health of the patient at hand. Managed health care focuses primarily on medical practitioners to do away with inappropriate treatments and ensures that cost effective practices are implemented (Fairfield *et al*., 1997: 314). Under the managed health-care system, it is virtually impossible for the medical practitioner to focus exclusively on a patient at hand without considering external factors (De Jong, Westert, Noetscher & Groenewegen, 2004: 1; Scott *et al*., 2001: 71). Furthermore, in the managed health-care model, the primary care health professional serves as a gatekeeper for referring patients to the specialists (Scott *et al*., 2001: 71). The patients can not directly consult the specialist without the referral letter from the primary health-care professional.

Ament (2005: 368) posits that in the USA, medical practitioners have to provide the necessary documentation regarding care of the payer after giving direct care to the patient. The healthcare provider is bound by law to be accountable for the financial implications of the care decisions and the related paperwork (Ament, 2005: 368). Scott *et al*. (2001: 71) conclude that the role of the medical practitioner has changed to one of gatekeeping, provider autonomy, and mandatory paper work associated with the services provided.

2.8.4 Quality of patient care

Glied and Zivin (2002:339) associate the quality of medical care with the intensity of services rendered and predict that patients under managed health care do not receive good quality medical care compared to their counterparts in a fee-for-service setup. Quality of care has always been assessed by the health-care service provider as patients are deemed to be uninformed about the treatments and medical practice and therefore cannot evaluate quality properly (Braunsberger & Gates, 2002:576). The use of patient satisfaction surveys as the measure of quality of care may be misleading as it is dependent on the age, education and variety of external factors, including the health status of the patient (Braunsberger & Gates, 2002:576). Pauly (2004:115) believes that the incentives given by managed health-care organisations to the service provider, affect the quality of the service provided. These incentives have been carefully structured in the way they affect quality of care positively or negatively, otherwise would not be implemented (Pauly, 2004: 114). On the other hand, Lichtenberg (2011:3) perceives the indicators of quality in medical care to be the quality of diagnostic procedures and the training of the health-care professional at a top-ranked medical school in the country. That signifies that advanced diagnostic tools and good training of medical practitioners at a renowned medical school provide better quality of medical care.

Gross and Nirel (1998: 77) emphasise that the quality of health-care system delivery has many dimensions and includes "structure, process and outcome". Pierce (2005: xxiv)

further argues that the problems surrounding quality and safety are also exacerbated by the lack of standards that define good quality in the health-care system.

Miller and Luft (1997: 7) argue that quality of care is a contentious issue in a managed health-care environment as it differs between managed health-care organisation proponents and opponents, who hold a debate on the quality of health care provided on managed health-care organisation plans. The patients favour effectiveness (achieving a goal by any means necessary), while health-care funding authorities favour efficiency (achieving a goal at a reasonable cost) (Simonet, 2005: 424). Simonet (2005: 428) mentions that the patients associate quality with unlimited access to medical care and any limitation is perceived as an attack on the quality by the managed health-care organisation. For example, declining to cover certain procedures, and refusals to refer to a specialist are seen as denial of quality medical care. Miller and Luft (1997: 14) further emphasise that evidence is mixed on whether the managed health-care system provide a better or worse quality of care, and that both opponents and proponents will find support for their arguments.

Rivers and Tsai (2001: 307) argue that managed health-care strategies put the medical practitioners under pressure to make clinical decisions that are not in patients' best interest for the sake of saving on costs. Examples include denying service to patients and discharging the patients prematurely from the hospitals. Melichar (2009: 903) suggests that the medical practitioners can increase their income significantly if they reduce the services they provide to capitated patients by one procedure or test. Scott *et al*. (2001: 71) further state that in the managed healthcare system, primary care health professionals are persuaded in different ways to do less and to keep the patients well by adhering to protocols.

De Jong *et al*. (2004: 1) state that the variation in medical practice is caused by non-medical factors such as a response to regulation, method of patient payments to the physician, uncertainty of the most effective practice and the type of insurance coverage that the patient has. The health-care provider does not want to recommend treatment only to be denied by the managed health-care organisation. Simonet (2005: 428) further

elaborates that the managed healthcare organisations do not affect all the patients in the same way; poorer patients have a narrower choice while richer patients have a broader spectrum of coverage. Therefore their opinion on the quality of care differs. Pierce (2005: xxiv) argues that the hospitals and the physicians make their money based on consultations and the number of procedures they perform.

Pierce (2005: xxv) further emphasises that pharmaceutical companies are striving to improve the quality and safety of health-care delivery systems through their innovative medicines that eliminate previously necessary surgeries and thus enable less invasive procedures to be undertaken by the health-care professionals. Higher health care needs (resulting from aging populations and new pathologies in modern society) and increased technological costs have caused the health-care funding authorities to address the quality of healthcare as efficiency (Simonet, 2005: 424). However, there is not enough literature to suggest that the managed health care has led to a decline in quality of care as it all comes down to the individual health-care professional practicing ethically (Wolinski, 1995: 1499).

2.8.5 Perceptions of medical practitioners of managed healthcare

Hugo and Loubser (2005: 75) argue that since managed healthcare represents a collection of interventions, it is probable that these interventions will "provoke responses which either support or counter the objectives of the intervening parties".

Current literature on the perceptions of medical practitioners suggests that they see managed healthcare more as a threat than an opportunity (Tietze, 2003: 313; Marnoch & Lian, 2002: 875). Tietze (2003: 316) reports that the medical practitioners view the implementation of managed health-care systems negatively, which affects the patient intensity of illness, the time spent in basic patient care and the average in-patient length of stay at the hospital. Tietze (2003: 315) indicates that in the areas that have high managed health-care penetration, the health-care professionals hold a more negative perception on the impact of managed health care on the health-care delivery system. However, the health-care professionals who work for a non-profit organisation have a

more positive perception of the impact of managed health care on the health service industry (Tietze, 2003: 316). Tietze (2003: 316) concludes that the health-care professionals who have been longer in their current position hold positive perceptions about the impact of managed health-care system.

The implementation of the managed healthcare system is perceived to threaten the professionals' independence and autonomy (Marnoch & Lian, 2002: 875). Marnoch and Lian (2002: 875) add that the medical practitioners fear that their patients' needs might not be met if they lose clinical autonomy and that the decision on patient treatment may be based on the financial consideration. Marnoch and Lian (2002: 875) further report that specialist medical practitioners believe that the managed health care is not beneficial to them as more power is given to general practitioners acting as gatekeepers. The medical practitioners, however, would like to own or manage managed healthcare organisations (Marnoch & Lian, 2002:875).

Schifrin, Jacobs, Romans, Cruess and Kelly (2001: 464) report that obstetrician-gynaecologists who participated in the managed health-care system are "very dissatisfied with the administrative work load, the external review of clinical decisions and the promptness of payments by the managed health-care organisation. However, the majority of obstetrician-gynaecologists had positive perceptions about the quality of care provided under a managed health-care system, the coordination of care, the time spent with patients, the ability to make appropriate clinical decisions, the physician network and the plan's pharmacy formulary (Schifrin *et al*., 2001: 464).

Scott (2008:41) reported in his study that the overall perception of the medical practitioners was a negative one towards managed health care, and they felt that the quality of care did not improve under managed health care, while they perceived managed health care as a threat towards their professional autonomy.

Therefore, managed health-care organisations acting as third party between patients and health-care professionals, are bound to elicit some reaction from both patients and health-care professionals. In this section it is clear that there are different views on the impact of

managed health care on patients' care especially the role of the practitioners that has changed to that of gatekeepers. The quality of the care itself is also a contentious issue where managed health care's strategy of standardising care is working well and has improved healthcare. This claim is met with criticism from the practitioners who feel that the managed health care has taken over their professional autonomy and the quality of patient care has not improved under managed health care. In fact, they believe the quality of care has dropped. It is important that these views are researched to validate these perceptions and seek to improve the relationship between all the stakeholders in the health-care industry.

2.9 Concluding comments

Literature suggests that the managed health-care system, in its nature, was established to contain the cost associated with healthcare and to improve the quality of care. The managed health care concept started in the USA and was adopted around the world by many countries, including South Africa. There are, however, opposing views about its achievements on containing the costs of health care. These views differ from opponents and proponents of managed health care. Some of the views are supported by data in the USA in the 1990s whereby health care costs seemed under control. However, the increasing number of managed health care enrolees together with the aging population are the major drivers of increased expenditures by managed health-care organisation. The private hospitals costs and the medical specialists are driving up the costs of health care under managed health care. Another key feature of managed health care, beside containing the costs and improving the quality, is regulating access to health care. A referral letter is needed if a patient need to see a medical specialist. It can be argued that optimal quality can be costly and limiting access does not lead to better quality of service rendered. The managed health-care organisations use utilisation management and disease management as key strategies to find balance between cost, access and quality. The number of managed health-care models has insured that the risk is diversified by the organisations and that the providers have the options that can suit them individually.

These models differ in terms of the “strictness” of the services provided by medical practitioner to the patients. The IPA is the less strict model.

There are no good references as to what constitutes quality in health-care delivery as both patients and health-care professionals have different views. Managed health-care organisations see efficiency (achieving a goal at a reasonable cost) as quality, while patients see effectiveness (achieving a goal by any means necessary) as quality. The health care providers seem to be stuck in the middle as they are advocates for both the patient and for funders. Some literature suggest quality in health care is delivery through medical practitioners that attended prestigious medical schools. Literature suggests that managed health-care organisations need to move away from just cost containment strategy to the more complex management of health care, including prevention of illnesses and promotion of wellness. It can be argued that the different needs of stakeholders (patients, medical practitioners and funders) have resulted in the complex and controversial nature of managed health care. The literature presented argues that all the legitimate needs of individual stakeholders have to be put aside for the needs of the managed care system because individual needs will destroy the system all together.

The managed health-care system presents ethical dilemmas with medical practitioners. Medical practitioners fear that managed health-care system implementation threatens their professional autonomy, impedes their ability to carry out their ethical obligations and destroys the doctor-patient relationship; and this will lead to patients not getting the best care for the sake of saving costs. The incentives offered by the managed health-care organisations leaves the health care providers in the middle as they have to be advocates for the patient and also the funder.

Previous studies conducted on the perceptions of medical practitioners on managed health care have yielded different views. The medical practitioners contracted to a managed health-care organisation has positive views of managed health care and its impact on the quality of care. However, medical practitioners that are not contracted to managed health-care organisations had negative views on managed health care and believe managed health care is saving costs at the expense of quality health care.

The following chapter looks at the research methodology to be undertaken to investigate the perceptions of the medical practitioners towards managed health care.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter introduces the topic of research design and methodology. It then further explains why the design and methodology were followed. The research approach, methodology and ethical considerations will be discussed in full.

Babbie and Mouton (2009:75) define research methodology as a process in research where methods, techniques and procedures to be carried out, are specified. Research methodology focuses on the research process and the kind of tools and procedure to be used (Babbie & Mouton, 2009:75).

3.2 Research objectives

The primary objective of the present study as stated in Chapter One is to investigate the perceptions of medical practitioners of managed health care and its implications for patient care.

The secondary objectives of the present study are as follows:

- To determine how medical practitioners believe managed health care affects their ability to deliver quality service to their patients
- To determine the perceptions of medical practitioners towards managed health care and their ethical obligation
- To determine the perception of medical practitioners on the ability of managed health care to control the cost of health care.

3.3 Research approach

Zikmund (2003:157) suggests that the level of uncertainty of the research problem guides the type of research that will be undertaken. This study aims to determine the perceptions

of the study population and therefore will follow a quantitative research approach because the nature of the population to be studied and the nature of the research problem require it. Babbie and Mouton (2009:49) emphasise that the best way of "measuring the properties of a certain phenomenon, is through quantitative measurement i.e. assigning numbers to the perceived quality". This research approach is also fitting as the study population understands the environment or industry and they are aware of the subject matter.

As a research strategy, the descriptive research is objective and deductive, and "incorporates a natural science model of the research process" (David & Sutton, 2004:35). Zikmund (2003: 279) believes that a descriptive research is a good approach in determining the extent of the differences in perceptions and attitudes. In descriptive research, the researcher must also have prior understanding of the underlying relationships of the problem at hand (Coldwell & Herbst, 2004: 9). Quantitative research often shows quantification in the collection and analysis of data (White, 2002: 26). The analysis can be simple as using Tables or charts (White, 2002: 47). Coldwell and Herbst (2004:15) also mention that data collected in a quantitative study is mostly intended to apply the results to the overall population.This study will be descriptive in nature. This is fitting as the researcher has a general understanding of the environment in which the research will take place. However, the conclusive evidence on the study problem is yet to be collected.

3.4 Research method

This section covers the topics of the study population, sample, sample size, data collection methods and data analysing methods. Jankowicz (2000: 209) defines the research method as a "systematic and orderly approach" of collecting and analysing data with the intension to use the information derived from the data.

3.4.1 Research population

The study population is “that aggregation of element from which the sample is actually selected" (Babbie & Mouton, 2009:174). The study population can be simply defined as a group of individuals in which the researcher is interested. The population for this study will be all medical practitioners serviced by Merck Sharpe Dohme (MSD (Pty) Ltd) in the northern suburbs of Johannesburg. The number of medical practitioners serviced by MSD (Pty) (Ltd) is 150.

3.4.2 Research sample

Coldwell and Herbst (2004: 74) refer to sampling as the "act, process or technique" used to select a representative part of the population in which the researcher is interested. It is a deliberate process and depends on the type of research to be undertaken (Jankowicz, 2000: 192). In this study, a non-probability sampling method will be followed. Non-probability sampling is a "sampling technique in which the units of the sample are selected on the basis of personal judgement or convenience" (Coldwell & Herbst, 2004: 81; Jankowicz, 2000: 193; Zikmund, 2003: 380). This means identifying and questioning people whose views are relevant to the issue at hand (Jankowicz, 2000: 194). The sampling method depends on the "degree of accuracy, resources, time, and prior knowledge of the population (Zikmund, Babin, Carr & Griffin, 2010: 405).

There is no definitive answer as how big the sample size should be (David & Sutton, 2004: 153; Zikmund, 2003: 423). The sampling method has an influence on the sample size (Jankowicz, 2000: 199), but if the researcher wants less of a sampling error, then the sample must be bigger (Bryman, 2004: 97). Non-response must also be taken into account when considering the sample size in a research survey (Bryman, 2004: 98).
In this study, the sample size will be the number of the respondents in the survey research conducted. That is the number of completed questionnaires that the respondents would

have filled out appropriately. The aim will be to gather 70% of the distributed questionnaires.

3.4.3 Data collection

The technique of collecting data to be used in this study is a survey. Zikmund (2003:175) defines the survey as a "research technique in which information is gathered from the sample of people by use of a questionnaire or interview". A survey provides a "quick, inexpensive, efficient and accurate means of assessing information about a given population" (Zikmund, 2003: 175). Babbie and Mouton (2009:232) further comment that measuring the attitudes of a population is best done by surveys. The advantage of the survey is that data is drawn in the present and can be considered as the current information (Jankowicz, 2000: 222). Even though the surveys quantify certain information, they can also have qualitative aspects (Zikmund *et al.,* 2010: 186). The attitudes or perceptions of the study population will be measured using a questionnaire with a 5-point Likert scale. The Likert scale gives respondents and opportunity to express the perceptions in either a positive or negative way that they wish to respond (Scott, 2008: 15).

An instrument that is going to be used in this survey is a questionnaire. The questionnaire is included in Appendix A. The questionnaire was adopted as it is from a part of the study by Feldman, Novack and Gracely (1998: 1628). Babbie and Mouton (2009:233) describe a questionnaire as a "collection of questions" that are designed to assemble information that is pertinent to the study. Zikmund (2003:212) suggests that a self-administered questionnaire is appropriate in many situations as the researcher's presence is not necessary. With a self-administered questionnaire, respondents answer the questions themselves (Zikmund *et al*., 2010: 219; Bryman, 2004:133). A possible drawback with the self-administered questionnaire is that respondents are required to be adequately literate to complete the questionnaire unsupervised (Babbie & Mouton, 2009: 236). The language to be used in the questionnaire will be English only.

The questionnaire will be printed and delivered to the respondents and collected at a later date. Zikmund (2003:219) argues that these methods are appropriate for extremely long questionnaires, but can also be costly and time consuming as the researcher has to travel to the respondents' location. Since the researcher knows the locations of the respondents, the drop-off method is appropriate. A copy of the questionnaire is attached as an Appendix A.

3.4.4 Data analysis

The process of data analysis starts when the data has been collected. Zikmund (2003: 453) highlights that the process includes, but is not limited, to editing, coding and data processing. Descriptive analysis will then be undertaken. The data collected from the demographical questions of the questionnaire will be presented and analysed to see if these demographics bear any difference in perceptions from the study population. The statistical correlation method will be employed for the differences in perceptions according to demographics using the statistical analysis computer program. Descriptive analysis ensures that the data is transformed into easily understood information.

The data will be analysed using the IBM SPSS statistics version 21 program. The data will be coded in a sequential format as it appears on the questionnaire. The variables will be coded independently and a string variables will be added to the data. For the purpose of analyses some string variables will be combined. Data will be presented in a tabular form or cross-tabular as determined by the number of respondents per area or speciality. The data will then be presented in percentages and central measures of tendencies. The scores from the Likert scale will be presented and the results will be presented per question listed on the questionnaire.

3.5 Ethical considerations

This section deals with the ethics and the ethical considerations that are relevant to the study to be undertaken.

Zikmund (2003:78) states that in any research project, there are always two or three parties involved, the researcher, the respondent and sometimes the sponsoring client. Each of these parties has rights and there are obligations from other parties arising from those rights (Zikmund, 2003:79). It is from the interaction of those involved parties that the ethical issues arise (Babbie & Mouton, 2009:520). The rights of an individual in a society should not be superseded by the researcher's right to search for truth (Babbie & Mouton, 2009:520).

Zikmund (2003:79-80) summarises the rights and the obligations of the respondents as the "right to informed consent, privacy and confidentiality, and obligation to be truthful". Zikmund (2003:81) also expresses the rights and obligations of the researcher as follows, "right to be informed, obligation to abide by the code of ethics, objectivity, protection of respondent's privacy and confidentiality. Since the data collection method and instrument in this study is a questionnaire, the respondent's voluntary participation must be highlighted. The confidentiality of the response must be clarified because the researcher will know the respondents' answers when the questionnaires are collected.

Most importantly, the researcher has the obligation not to misrepresent the results and "dissemination of faulty conclusions". Babbie and Mouton (2009:525) add that voluntary participation should be highlighted and that no participants will be harmed during the conduction of the study.

3.6 Concluding comments

This chapter addressed the research methodology that is going to be undertaken to ensure that the data is collected and analysed effectively and efficiently. A quantitative, descriptive approach is chosen for this research. The researcher and the study population are both aware of the relationships in the study problem and therefore non-probability sampling was chosen. Judgemental or purposive sampling was employed due to time and resource constraints.

The study population will be all the medical practitioners serviced by MSD in the northern suburbs of Johannesburg and the sample size will be the number of the responders. The survey will be conducted and a self-administered questionnaire to be dropped-off and collected from the medical practitioners' office. The results will be presented by Tables and Figures, and the statistical analysis will be employed to analyse any relationships found in the study. Ethical considerations were also discussed especially the confidentiality and anonymity of the informants.

The next chapter will present the results of the study using tables and figures.

CHAPTER FOUR: PRESENTATION OF RESULTS

4.1 Introduction

This chapter presents the results of the study that was conducted. The results will be presented in Tables and Graphs. Two hundred and twenty four questionnaires were distributed to medical practitioners in the northern suburbs of Johannesburg. The total number of respondents were 81, amounting to a 36% response rate. For the statistical analysis purpose, the Section B of the questionnaire (see appendix A) was divided into 5 sections according to the theme questions. The first theme, questions 8 to 13, was labelled B1; questions 14 to 20 were labelled B2; questions 21 to 25 were labelled B3; questions 26 to 32 labelled B4 and questions 33 to 38 were labelled B5. The themes were taken through the reliability testing and factor analysis.

4.2 Statistical Analysis

The following section presents the statistical analysis of the results. The analyses will include the reliability of the questionnaire and the factor analysis of the questionnaire.

4.2.1 Reliability

The internal consistency of the items is checked by calculating the Cronbach's alpha coefficient of the grouped section B items. The Cronbach's alpha coefficient of 0.7 was the cut-off point.

Table 4-1: The internal consistency of the items in Section B

Section	Number of items	Cronbach's Alpha
B1	6	0.923
B2	7	0.927
B3	4	0.602
B3*	5	0.554
B4	7	0.879
B5	4	0.866
B5*	6	0.784

* denotes theoretical

Table 4.1 shows that most sections has the Cronbach's alpha coefficient of more than 0.7, and this is an indication that the scale that was used in the study has good internal consistency. However, only section B3 has the coefficient that is below 0.7. Section B3 shows that when one item was removed from the list, the internal consistency improved, and also section B5 that showed improvement when the 2 items were removed.

The reliability results show that in sections B1, B2 and B4, the statements or propositions are consistent with measuring the respective themes of the sections, and could be grouped together to measure the theme. However, Sections B3 and B5 show that some of the propositions are not consistent with the theme of the sections and need to be removed and put under a different theme. The results of the reliability test show that the questionnaire is well validated. This is expected as the questionnaire is adopted from a previous study.

4.2.2 Factor analysis

Factor analysis is used to summarise or reduce the components of the scale to a manageable number that reflects the relationship within the group. Exploratory factor analysis is used to explore the interrelationships amongst the variables in section B of the questionnaire. A component matrix is employed to check for reverse scoring. Principal component analysis is used to identify the number of underlying factors. Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy of 0.6 or above and a significant value (<0.05) of Bartlett's test of sphericity (BTS), verified the suitability of factor analysis. Principal axis factoring is used and the factors with the Eigenvalues greater than 1 were extracted for further investigations.

The results of section B1 show that there is no need for reverse scoring as all the components are positive. The KMO is 0.899, The BTS is significant and correlation coefficients are greater than 0.3. This indicates that section B1 is suitable to do factor analysis. There is only one factor that has Eigenvalues above 1 (4.358) and explains 73% of the variance. There is no need for the factor rotation as one factor is to be extracted for further investigation. Section B2 has all components positive and does not need to do a reverse scoring. The KMO is 0.879, the BTS is significant, and all correlation coefficients are greater than 0.3. One factor has Eigenvalue above 1 (4.900) and accounts for 70% of the variance. There is no need for factor rotation as only one factor is extracted.

In section B3, the principal component analysis extracted 2 components. One item is omitted as the measure of sampling adequacy is below 0.6 (0.455). The KMO is 0.664, the BTS is significant, and not all correlation coefficients are above 0.3. Only one factor has the Eigenvalue above 1 (1.921) and explains 48% of the variance. There is no need for factor rotation as one factor was extracted.

Section B4 has one component extracted. The KMO is 0.780, The BTS is significant and all correlation coefficients are above 0.3. One factor had the Eigenvalue above 1 (4.120) and explains 59% of the variance. There is no need for factor rotation as one factor was extracted. In section B5, the principal component analysis extracted 2 components. Two items are omitted as the measure of sampling adequacy is below 0.6 (0.54 and 0.087 respectively). The KMO is 0.770, the BTS is significant and all correlation coefficients are

above 0.3. Only one factor has the Eigenvalue above 1 (2.861) and explains 72% of the variance. There is no need for factor rotation as one factor was extracted for further investigation.

The factor analysis results show that the majority of the propositions in section B were consistent and belonged to the themes that were tested by the researcher. The results of the statistical analysis show that the questionnaire was consistent and the propositions are able to be reduced to few variables that can be used to assess the themes of the researcher.

4.3 Biographical information

Twelve suburbs in the northern suburbs of Johannesburg were represented in the responses with the majority (22%) of respondents from the suburb of Morningside. Table 4-2 shows the numbers and percentages of respondents according to speciality.

Table 4-2: Medical practitioners according to specialty

Speciality	Frequency	Percent
GP	41	50.6
Physician	3	3.7
Specialist Physician	34	42.0
Other	3	3.7
Total	**81**	**100.0**

Eighty one percent of the respondents were under the age of 60. Male participants accounted for 61% of the respondents. The respondents were highly experienced with the majority of 57% having more than 15 years of experience in a private practice. Only 14% of the respondents worked part time. The majority of the respondents, 80%, were not contracted to any managed health-care organisation.

4.4 Perceptions

For analysis purposes, the Likert scale was reduced to 3 items. Very positive effect and positive effect were grouped together and the same was done with very negative effect and negative effect. The perceptions of the medical practitioners will be presented below in tables and a short descriptions of the results will be done.

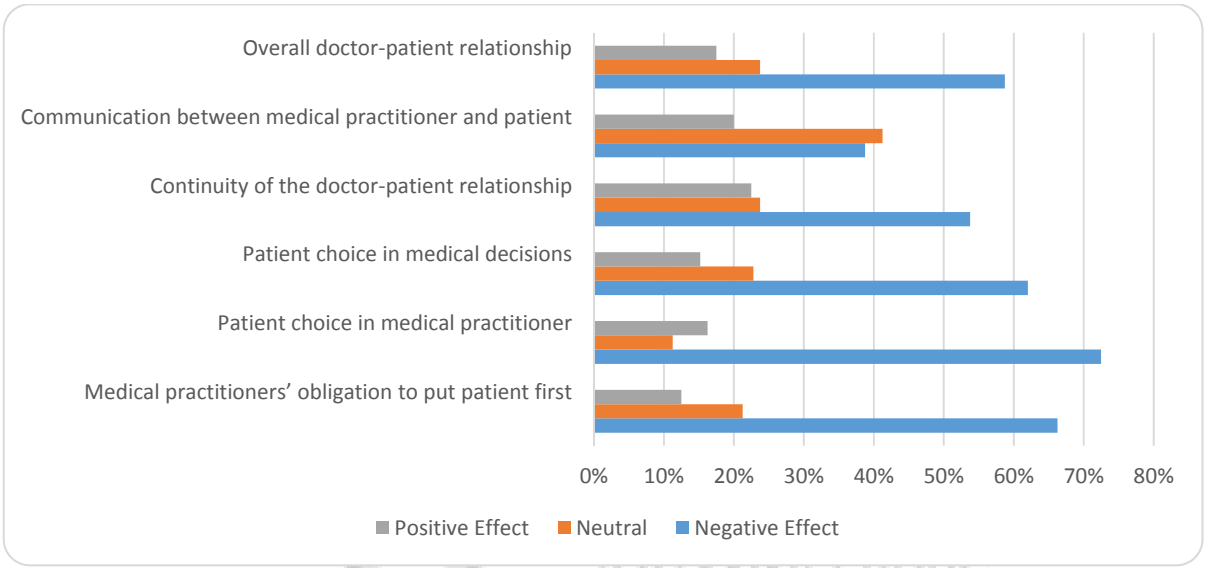

Figure 4-1: The effect of managed health care on specific aspects of doctor-patient relationship.

Figure 4-1 shows that medical practitioners perceive the managed health care to have an overall negative effect on the doctor-patient relationship. Medical practitioners perceive the patient's choice of a practitioner to be the worst affected by the managed health care with 73% of the response, closely followed by the medical practitioner's obligation to put patients first. However, medical practitioners believe managed health care has not altered the communication between the patient and the medical practitioner. These results show that medical practitioners perceive managed health care as an antagonist of their relationship with their patients.

Figure 4-2 shows the perceptions of medical practitioners on the effect of managed health care on carrying out their ethical obligations towards the patients. The majority of the

respondents believed that managed health care had no effect on providing patients with information regarding the diagnostics and therapeutic options, as well as obtaining the patients' informed consent. Most respondents perceived managed health care to have a negative effect on respect of patients' confidentiality and autonomy. Respondents also perceived the managed healthcare to have a negative impact on the overall ethical obligations of the medical practitioner, and also postulated that managed health care making it difficult to avoid the conflict of interests between the medical practitioners' financial gain and patient well-being.

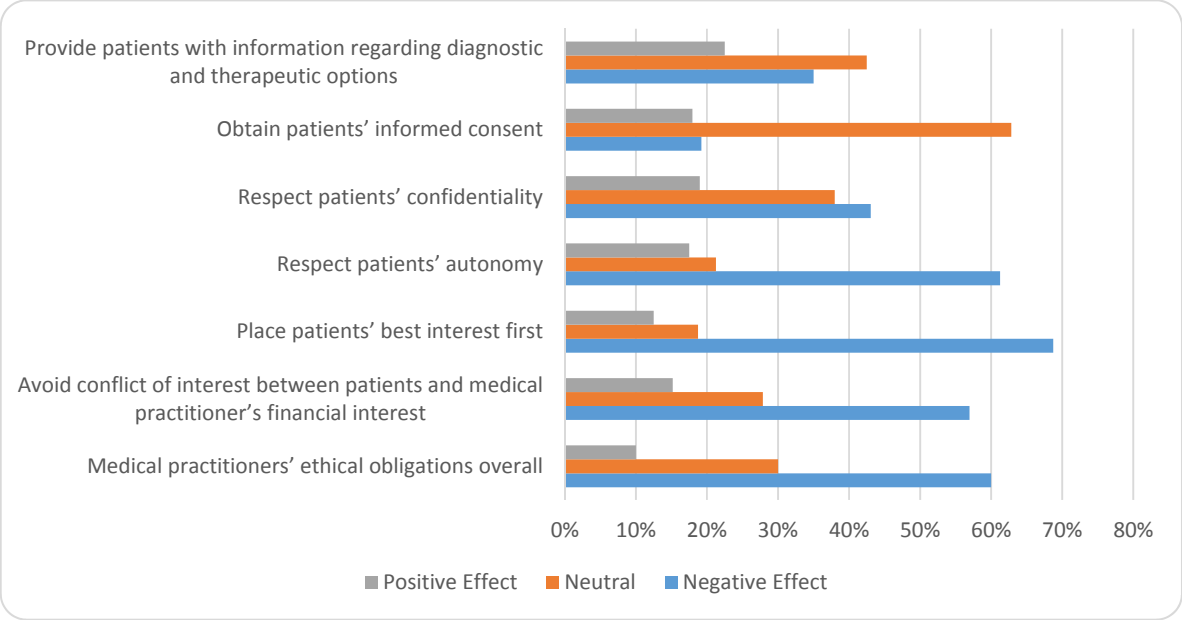

Figure 4-2: The effect of managed health care on the ability of the medical practitioner to carry out ethical obligations

Figure 4-3 presents the medical practitioners' perceptions on the patients who are enrolled in managed health care. Most respondents agree that patients enrolled in managed health care see doctor-gatekeeper as an adversary to their wellbeing and believe that there is more emphasis on the productivity level, leaving less time to spend with patients. An overwhelming majority of medical practitioners believe that patients enrolled under managed health-care organisations have more difficulty in reaching their doctor. Most respondents also perceived the cost reductions to take priority over the

quality of patient care, with patients who are enrolled in managed health care. This has negative implications towards patient care by the medical practitioner. It is interesting to note that medical practitioners perceive managed health care to have no impact on communicating with the patients during the consultation process.

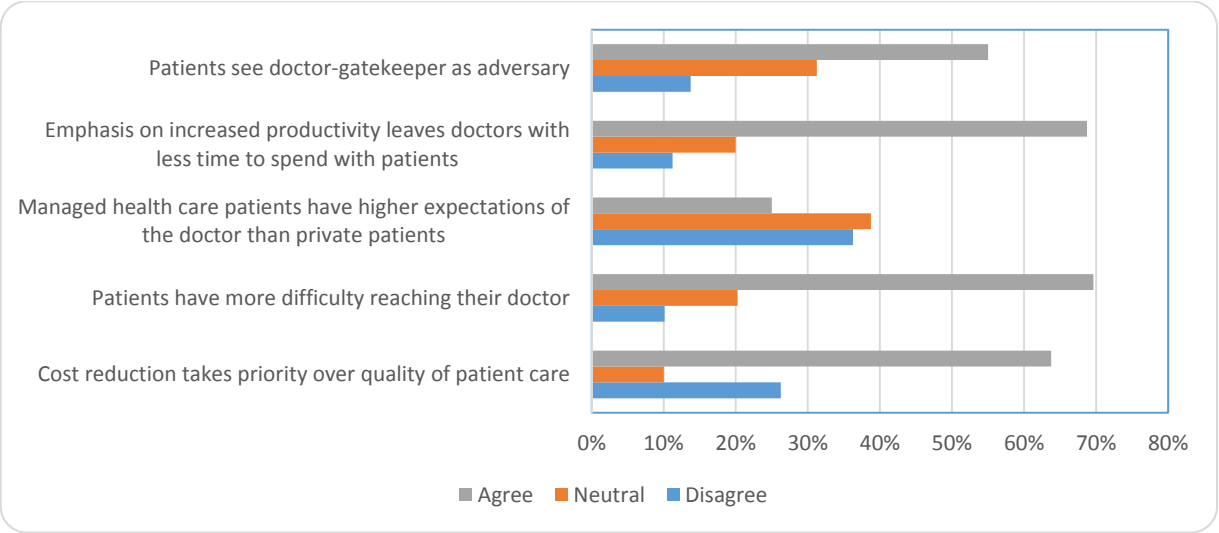

Figure 4-3: Level of agreement with statement about managed health care and patients enrolled in managed healthcare

Figure 4-4 presents the results on the impact of the managed health care limitations on the quality of patient care. The limitations that are imposed by the managed health care are perceived to be very negative by the respondents, with choice of specialists getting the majority consensus. Location of hospitalisation and the site of diagnostic procedures and test are also perceived to be negatively impacting the quality of patient care, as some patients have to travel far to complete diagnostic procedures and also to be hospitalised. The negative impact perceived by the medical practitioners on the limitations shows that quality patient care is synonymous with unrestricted care and managed healthcare needs to involve medical practitioners in formulating the strategies.

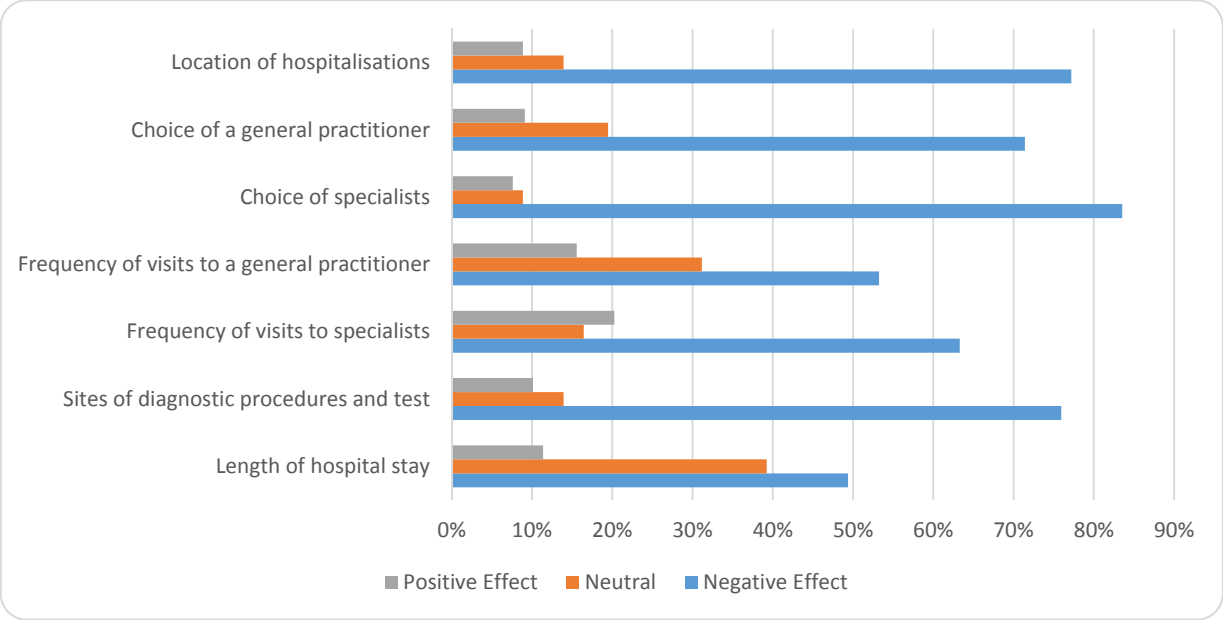

Figure 4-4: The impact of various managed healthcare limitations on the quality of patient care.

In Figure 4-5, the neutral response was ommitted in the results as the scale was measuring the frequency of specific goals achieved under the managed health care. A slight majority of respondents perceived managed health care as being successful and consistent in reducing unnecessary services and reducing the expenses associated with patient care. However, most respondents perceive managed healthcare as not consistent in providing better treatment and also inconsistent with improving patient outcome. Interestingly, the respondents also feel that the provision of preventative medical care is also inconsistent. The results show that medical practitioners believe that the consistency of reducing unnecessary services and costs does not neccesarily lead to provision of better treatment and improved patient outcomes. These results are important for the managed healthccare to evaluate their strategies in managed healthcare and how the medical practitioners can contribute towards a more acceptable approach.

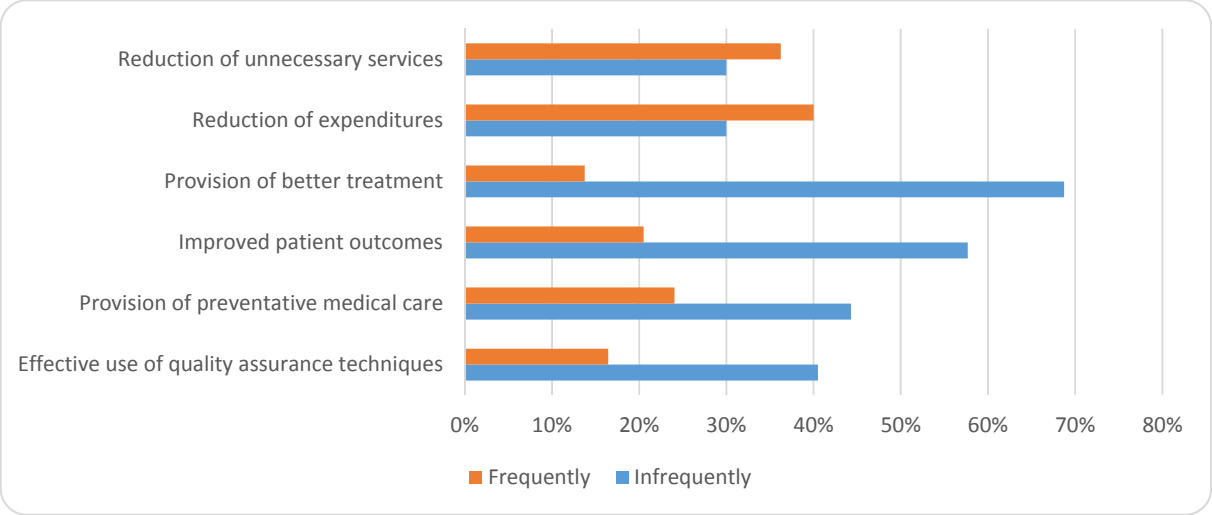

Figure 4-5: Frequency of achievement of certain goals under managed health care.

The results on perceptions of medical practitioners on managed health care show that the doctor-patient relationship is strained and medical practitioners also believe that they can't carry out their ethical obligations towards patients. The medical practitioners also believe that the limitations that are imposed by managed health care are a hindrance to give patients quality care. This is also reflected by their perceptions on patients enrolled in a managed health-care organisation. These perceptions also have implications towards patient care and show that the impact is negative, based on these results of the study.

4.5 Test for normality:

The groups that are tested are speciality: GP and Specialist Physician; number of years in private practice: 15 years or less and more than 15 years; gender: male and female; and whether the medical practitioner is contracted to the managed health care or not. Shapiro-Wilk and Kolmogorov-Smirnov tests are utilised to check for the normality of the distributions amongst the group. The significance level of 0.05 or more indicates normal distribution of the data.

Table 4-3: Test for normality (Shapiro-Wilk test)

	Section B1	Section B2	Section B3	Section B4	Section B5
	P-value	**P-value**	**P-value**	**P-value**	**P-value**
GP	<0.001†	0.012†	0.051††	0.020†	0.131††
Specialist	0.03†	0.045†	0.114††	0.002†	0.055††
Male	0.006†	0.029†	0.046†	0.006†	0.034†
Female	0.002†	0.372††	0.115††	0.136††	0.462††
Less than 15 yrs	0.008†	0.271††	0.179††	0.045†	0.628††
More than 15 yrs	<0.001†	0.008†	0.025†	0.001†	0.003†
Contracted	0.486††	0.282††	0.465††	0.623††	0.312††
Not contracted*	<0.001†	0.074††	0.006†	<0.001†	0.024†
* Kolmogorov-Smirnov test					
†Not Normally distributed					
††Normally distributed					

Table 4-3 shows that some of the data among the variables is not normally distributed throughout sections. The data for the medical practitioners contracted to manage health care is, however, distributed normally across all the sections. The Kolmogorov-Smirnov test is applied on the data for the medical practitioners not contracted to managed health care because they are more than 50 (64) respondents.

4.6 Non-parametric test:

A non-parametric test is used for the comparisons because not all the data is distributed normally. The test that is used to test for the differences between the groups is Mann-Whitney U test. The results are tabulated next.

Table 4-4 shows that there was no statistically significant difference in the mean ranks between the two specialities. The perceptions of both the GP and that of the specialist were similar. The mean ranks of the males were also similar to that of female medical practitioners as there was no difference deemed statistically significant (Table 4-5).

Table 4-4: Group statistics and test statistic (Speciality)

		N	Mean	Std. Deviation	Mean Rank	Z	Asymp. Sig. (2-tailed)
Mean_SecB1	GP	40	2.56	.983	42.89	-1.592	0.111*
	Physician / Specialist Physician	37	2.22	.930	34.80		
Mean_SecB2	GP	40	2.66	.855	43.34	-1.777	0.076*
	Physician / Specialist Physician	37	2.37	.810	34.31		
Mean_SecB3	GP	40	3.61	.687	39.05	-.021	0.984*
	Physician / Specialist Physician	37	3.60	.776	38.95		
Mean_SecB4	GP	40	2.32	.696	41.89	-1.184	0.236*
	Physician / Specialist Physician	37	2.15	.648	35.88		
Mean_SecB5	GP	40	2.58	.817	41.28	-.934	0.350*
	Physician / Specialist Physician	37	2.38	.852	36.54		

* Not statistically significant

Table 4-5: Group statistics and test statistic (Gender)

		N	Mean	Std. Deviation	Mean Rank	Z	Asymp. Sig. (2-tailed)
Mean_SecB1	Male	47	2.37	.923	39.32	-.087	0.931*
	Female	31	2.45	.969	39.77		
Mean_SecB2	Male	47	2.48	.868	38.45	-.507	0.612*
	Female	31	2.54	.808	41.10		
Mean_SecB3	Male	47	3.56	.772	37.29	-1.069	0.285*
	Female	31	3.72	.668	42.85		
Mean_SecB4	Male	47	2.25	.727	38.98	-.252	0.801*
	Female	31	2.21	.555	40.29		
Mean_SecB5	Male	47	2.44	.852	37.39	-1.017	0.309*
	Female	31	2.60	.791	42.69		

* Not statistically significant

Table 4-6: Group statistics and test statistic (Work experience).

		N	Mean	Std. Deviation	Mean Rank	Z	Asymp. Sig. (2-tailed)
Mean_SecB 1	15 years or less	35	2.57	.905	45.23	-1.611	0.107*
	More than 15 years	45	2.32	1.016	36.82		
Mean_SecB 2	15 years or less	35	2.74	.875	46.50	-2.045	0.041**
	More than 15 years	45	2.37	.832	35.83		
Mean_SecB 3	15 years or less	35	3.52	.688	36.43	-1.392	0.164*
	More than 15 years	45	3.71	.758	43.67		
Mean_SecB 4	15 years or less	35	2.28	.683	41.74	-.424	0.672*
	More than 15 years	45	2.23	.725	39.53		
Mean_SecB 5	15 years or less	35	2.78	.817	49.16	-2.956	0.003**
	More than 15 years	45	2.30	.835	33.77		

* Not statistically significant

** Statistically significant

The perceptions of the medical practitioners who have been in private practice for more than 15 year were similar to those of their peers with lesser experience, on the effects of managed health care on the doctor-patient relationship (Table 4-6). The differences observed between the two groups were not statistically significant. The perceptions of both groups were also similar on the patients enrolled in managed health care and on the managed health-care limitations have on quality of care provided.

The difference was observed and was statistically significant between both groups regarding the effect work experience has on the effect of managed healthcare on carrying out ethical obligations. Even though the perceptions were leaning towards “no effect”, the more experienced (more than 15 years) medical practitioners leaned towards a “negative” feedback. On the ability to often reach patient management goals under managed health care, both groups had different perceptions with more experienced medical practitioners experiencing they achieve patient management goals infrequently. It is important to note that both groups of work experience felt that they don’t achieve patient management goals frequently.

Table 4-7: Group statistics and test statistic (Contracted to managed healthcare).

		N	Mean	Std. Deviation	Mean Rank	Z	Asymp. Sig. (2-tailed)
Mean_SecB1	Yes	16	3.02	1.075	53.03	-2.421	0.015**
	No	64	2.28	.892	37.37		
Mean_SecB2	Yes	16	3.15	1.077	54.00	-2.608	0.009**
	No	64	2.38	.736	37.13		
Mean_SecB3	Yes	16	3.39	.796	32.94	-1.466	0.143*
	No	64	3.68	.707	42.39		
Mean_SecB4	Yes	16	2.51	.927	47.34	-1.324	0.186*
	No	64	2.19	.627	38.79		
Mean_SecB5	Yes	16	3.31	.841	60.03	-3.781	0.000**
	No	64	2.31	.742	35.62		

* Not statistically significant

**Statistically significant

Table 4-7 presents the results between the medical practitioners contracted to managed health care and those not contracted to managed healthcare. There was a statistically significant difference in the mean ranks of both groups in terms of the effect of managed health care on the doctor-patient relationship. Doctors contracted to managed health care saw the effect as neutral, while the doctors not contracted to managed health care perceived managed health care to have a more negative effect on the doctor-patient relationship. The difference between the mean ranks was also statistically significant for both groups in terms of their ability to carry out their ethical obligations. The medical practitioners contracted to a managed health care felt that there was no effect, while the medical practitioners not contracted to a managed health care felt that managed health care was a hindrance on their ability to carry out their ethical obligations to their patients.

There was also a statistically significant difference in the mean ranks of both groups in terms of the frequency of achieving results under managed health care. Medical practitioners contracted to a managed health care, felt that there was no difference in the frequency of achieving results under managed healthcare. The medical practitioners who were not contracted to a managed health care felt that they are achieving results more infrequently under the managed health care. The mean ranks show that both groups of medical practitioners do not achieve the results with the frequency they would have liked under managed health care. There was no statistically significant difference between groups in terms of the impact of managed health-care limitations, and also on their experiences with patients enrolled to a managed health-care organisation.

4.7 Concluding comments

This section presented the results of the study. The results were presented in a tabular form and also with the graphs. The results showed that the instrument used in the study was well validated and showed good internal consistencies. The test for normality also showed that the results were not normally distributed. The results showed that medical practitioners held negative perceptions on managed health care on the following aspects;

the doctor-patient relationship, their ability to carry out ethical obligations and on achieving goals with their patients. The medical practitioners do believe that the cost and unnecessary procedures have been reduced, but the patient outcomes have not improved.

The results revealed that there was no difference in the perceptions of both males and females, general practitioners and specialist. The difference in perceptions was observed in work experience and with medical practitioners contracted to managed healthcare and those who are not. The mean ranks show that most of the groups were leaning on the neutral and negative responses than the positive responses.

The following chapter will present key findings, recommendations and the conclusion

CHAPTER FIVE: KEY FINDINGS, RECOMMENDATIONS AND CONCLUSION

5.1 Introduction

This chapter sets out to discuss the key findings of the study as presented in the previous chapter and offers the recommendations for further research. The chapter will discuss key findings of the study and link the results with the objectives of the study. This chapter will also attempt to answer the research questions based on the findings of the study. The chapter will also present the researcher's suggestions for future research. The conclusions to the study will also be made at the end of the chapter.

5.2 Key findings of the study

The four key findings of the study are presented in this section.

5.2.1 Key finding 1:

Medical practitioners perceive managed health care to have negative impact on the overall doctor-patient relationship. Medical practitioners who are contracted to a managed health-care organisation perceive managed health care to have a neutral effect on the doctor-patient relationship.

The results of the current study show that medical practitioners hold negative perceptions on the effect of managed health care on the doctor-patient relationship. These results concur with the findings of the study conducted by Feldman (Feldman et al., 1998: 1627). Interestingly, in this study these negative perceptions were shared across the specialties, gender and work experience of medical practitioners and there was a consensus among the respondents. However, the medical practitioners who are contracted perceived managed health care to have a neutral impact on the doctor-patient relationship. Perhaps it can be argued that this was to be expected, since as contractors of managed health care, they are aware of what managed health care expects from them or may be biased. These perceptions need to be investigated or explored further to ascertain if their

perceptions are indeed valid. It is also important to note that most medical practitioners and patients have no say in the beginning or ending of some doctor-patient relationships as patients change jobs or the place they live in. Especially this applies to the patients who are enrolled with a managed health-care organisation (Feldman et al., 1998: 1630). This is caused by the limited choice of medical practitioners imposed by managed health care. The results of the study show that the majority of medical practitioners believe patients have limited choice in terms of choosing their own medical practitioners.

The majority of respondents felt very strongly about their obligation to put their patients' needs first. This is in line with the Hippocratic Oath that medical practitioners take when they practise medicine. It can be expected that any form of regulation in this regard will elicit a backlash from the medical practitioners. Literature suggests that it is challenging for the medical practitioners as they have to balance the needs of an individual patient, and also be advocates to a managed health-care organisation at the same time (Eastman et al., 2001: 212; Rivers & Tsai, 2001: 302 & Hall, 1997: 201).

It will be beneficial when studies evaluate the level of trust that patients have in their medical practitioners to ascertain if trust has or has not eroded under managed health care. This will be crucial to understanding the extent of strain in the doctor patient relationship. Literature notes that trust is imperative in a doctor-patient relationship. The study also did not unearth if medical practitioners felt that trust has or has not eroded. This also highlights the need for further research on the topic of doctor-patient relationship.

5.2.2 Key finding 2:

Medical practitioners perceive managed health care to impede on their ability to carry out their ethical obligations to the patients. More experienced medical practitioners (more than 15 years) felt strongly about the impediment. Medical practitioners who are contracted to a managed health-care organisation believe managed healthcare has no impact on their ability to carry out their ethical obligations.

Another key finding of the study is that medical practitioners believe managed health care impacts negatively on their ability to carry out their ethical obligation towards the patient. Placing patient's interest first is highlighted as the biggest challenge by the respondents. In the study, the medical practitioners who have been working in private practice for more than 15 years felt very strongly about managed healthcare making it difficult to carry out their ethical obligation towards the patient. This is to be expected as most of them would have started working before managed health care was introduced in South Africa and are used to a fee-for-service health care system. There was no regulation in a fee-for-service system and putting patient interests first entailed treating the patient with whatever means necessary. This backlash is documented in the study by Marnoch and Lian (2002:874). In-depth research on their views needs to be conducted to see if they are not just disgruntled by the regulation of managed health care and fear for their clinical autonomy or to determine if their concerns are legitimate.

Literature that is included in this study suggests that managed health care did not introduce new ethical concerns into health care, but brought the issues to the front and brought new element into decision making (Povlika, 2000: 132; Meyers, 1999: 384). It is also important to note that the medical practitioners who are contracted to a managed health-care organisation believe managed health care has no impacted on their ability to carry out their ethical obligations towards their patients. These perceptions need to be explored further for credibility.

5.2.3 Key finding 3:

Medical practitioners perceive the limitations imposed by managed healthcare to be affecting the quality of care in a negative manner.

Assessing the quality of care in health care is a contentious issue as stipulated in the literature review of the study. In a traditional fee-for-service system, quality of care was seen as treating a patient's complaint by any means necessary. However, in this study, quality of care was at the respondents' discretion of what they perceive as quality. This on its own indicates that in further research, a standard is predetermined before the perceptions are gathered.

The results of the study show that the majority of the respondents were in agreement that the limitations that are placed by managed health care affect the quality of patient care. Their perceptions did not differ across all the variables measured. That is, gender, specialty, work experience and whether or not they are contracted to a managed health-care organisation. The limitations included in the study were, location of hospitalisation, choice of a general practitioner, choice of specialist, frequency of visits to a general practitioner, frequency of visits to specialists, site of diagnostic procedures and length of hospital stay. The choice of specialist is seen as the limitation that impacts the quality of care the most. This limitation is employed by managed health care to limit access and contain the cost of healthcare. The respondents see this clearly as an attack on the quality of patient care.

The literature also reiterated that it is difficult, if not impossible, to balance cost with quality (Godlieb, n.d). It is unclear how locations of hospitalisation and the site of diagnostic procedures and tests affect the quality of care, as there is no literature supporting this finding. It can be argued that these limitations may add to the inconvenience of the patients, but that can hardly be attributed to the quality of patient care. Further studies are necessary to link the inconvenience and the quality of care. The length of hospital stay was somewhat perceived to have a marginal negative impact on the quality of care. Managed health-care organisations employ case managers who work hand in hand with the doctors to ensure that the patients don't stay hospitalised unnecessarily, and since doctors are involved in the decision-making, they are less likely to complain. However, literature to support such sentiments is needed in the future.

It should be noted that in the study conducted by Schifrin et al. (2001:464), the majority of the respondents were satisfied with the quality of patient care in a managed health-care system. These respondents were specialists and contracted to a managed health-care organisation. It is unknown from that study as to what constituted quality of patient care, and what propositions were used to measure the quality.

5.2.4 Key finding 4:

Medical practitioners perceive that managed health care has been consistent in reducing unnecessary procedures and expenditures, but inconsistent in providing better treatment and in improving quality of care**.** Medical practitioners contracted to managed health-care organisation perceived managed health care to be more consistent of achieving patient goals.

The study also assessed goals that were achieved under managed health care. In fact, the study looked more at the consistency at which those goals are achieved. There were mixed results in terms of the goals that are consistently achieved under managed health care. It is the consensus of the medical practitioners that the goals of reducing unnecessary services and reducing the expenditures were consistently achieved under managed health care. This can be seen as the supporting evidence to the proponents of managed health care and the success of managed health care strategies. However, Pierce (2005: xxiv) points out that these cost reductions are noticed because the costs have been redirected within the system. These sentiments are shared by Dranove et al. (2008: 362) that even though the hospitalisations have dropped, the costs of hospitalisations have increased. There are clearly mixed reactions in terms of reductions of expenditures by managed health-care strategies. The topic of expenditure reduction in a managed health-care setting needs to be researched in a greater detail.

The study also showed that even though the respondents believe managed health care is consistently reducing expenditure, the majority also felt that there is no consistency achieved in patients' outcomes. This can be interpreted by medical practitioners as a reduction in quality of patient care because the patient outcomes are not improved while the costs are decreased. This will also be a concern to managed health-care organisations which seek to balance the cost and the outcomes, as they believe the two are not mutually exclusive (Dranove et al., 2008: 368)

5.3 Answering of the research questions

The problem statement of the study is that the medical practitioners hold negative perceptions towards managed health care and its implication on patient care.
The results of the study show that the majority of the respondents hold negative perceptions towards managed health care and believe that the limitations imposed by the managed health care affect the quality of patient care in a negative way. The majority of respondents also felt that managed health care makes it difficult for the medical practitioners to carry out their ethical obligations towards the patients.
Therefore the results of the study concurred with the problem statement of the study and answered the research question.

The objective of the study is to investigate the perception of medical practitioners on managed health care and its implications for patient care.

The results show that the respondents believe that the managed health care has a negative impact in terms of doctor-patient relationships, and carrying out ethical obligations. The respondents also perceive the limitations implemented by the managed health-care organisations to be hindering the provision of quality service. However, the respondents also believe that managed health care has been consistent in reducing the expenditures. It is also important to note that the medical practitioners contracted to managed health-care organisations perceived managed healthcare to have no impact on the doctor-patient relationship and their ability to carry out their ethical obligations towards their patients.

Therefore the results of the study show that the objective of the study has been met and the perceptions of medical practitioners have been uncovered.

The secondary objectives included determining how medical practitioners believe managed health care affects their ability to deliver quality service to their patient, the perceptions of medical practitioners towards managed health care on carrying out their

ethical obligation, and the perception of medical practitioners on managed health care's ability to control the cost of health care.

The results show that the medical practitioners believe the limitations implemented by the managed health care affect the provision of quality care in a negative manner. The majority of the medical practitioners believe that the managed health care impacts their ability to carry out their ethical obligations towards their patients in a negative way. The medical practitioners contracted to a managed health-care organisation believe that managed health care has no impact on their ability to carry out their ethical obligation, but concurred that the limitations implemented by managed health care have a negative impact on the provision of quality care. The results also showed that the medical practitioners perceive managed health care to be consistent in reducing the expenditures. It is however, not clear from the results if the respondents believe it is total expenditures of health care in general or not.

Therefore the results show that the secondary objectives of the study were met and the perceptions of medical practitioners towards managed health care on carrying out ethical obligations, provision of quality service, and the ability to control the cost of healthcare, were revealed.

5.4 Recommendations

This section of the study will present the researcher's recommendations based on the outcomes of the study. The recommendations are as follows:

There is a need for publication of a documented clinical review criteria based on evidence-based medicine. This should include cost-effectiveness, affordability and should be reviewed periodically as new evidence emerge. This will give the healthcare professionals confidence in the managed health-care system.

Managed health care should be included in the undergraduate curriculum at medical schools under health-care delivery systems to empower the practitioners with knowledge before they start in private practice. This will encourage the development of philosophy

of managed health care where clinical care management, economic and social benefits are taught and based on accepted principle.

Managed health-care organisations need to acknowledge these perceptions and make an arrangement where appropriately qualified staff is available to perform the clinical oversight to the health care providers. Provisions should also be made for circumstances where the protocols are not effective and the member is not penalised in such circumstances.

Member education is key as the benefit structures and regulations are becoming more complex and this can be a cost control strategy to help managed health-care organisations alleviate rising health care cost.

To restore the trust of stakeholders, managed health-care organisations need to implement a fully integrated information system to collect, maintain, analyse and retrieve data with integrity, yet secure and confidential.

There is a breakdown of relationship between medical practitioners and managed health care. Stakeholder management programmes has to be introduced.
Regular stakeholders meeting or conferences need to take place to foster trust and to promote collaboration between the stakeholders in the managed health-care system.
Functional ethics committee and quality management programmes should be established by managed health care. The stakeholders should be well-informed about such programmes to enable accountability.

The government prohibited medical schemes from negotiating collectively in 2004 and this resulted in a lack of bargaining power with providers and thus rising cost. The government can regulate the managed health-care industry in a manner that allows a free market system to try and bring the costs down. However, the recommendation will only empower established managed health-care organisations to the detriment of the new entrants.

5.5 Suggestions for future research

This part of the study will look at the limitations of the study and propose suggestions of further studies. The field of managed health care has been researched widely internationally since the mid-nineties and its impact has been documented with mixed reactions. However, research in South Africa has been limited with only a handful of studies conducted. This shows that there is a lot to be researched about the impact of managed health care in South Africa. The perceptions of the key stakeholders (doctors, patients and funders) need to be researched in greater detail to understand the dynamics involved. With the expenditures of health care in general increasing steadily and the issue of access to quality health care by the previously disadvantaged communities, the need for finding “working models” of healthcare will be of importance for South Africa.

The study was only conducted in the northern suburbs of Johannesburg which is known to be the more affluent area of Johannesburg, and the patients are deemed to be able to afford health care. Therefore, a wider scope of area with different patient and doctor demographics would be appropriate for further research. The number of the respondents was also very low and future research needs to be done with a larger population size to validate the perceptions. There was a low number of the medical practitioners who are contracted to a managed health-care organisation, and their perceptions differed significantly from their counterparts who are not contracted to managed health care. Their perceptions, therefore, need to be validated by studies on a bigger scale

The questionnaire was used as an instrument in a quantitative study. This may limit the response of the respondents and a qualitative or open-ended part of the questionnaire would have provided in-depth understanding of the perceptions of the medical practitioners. A better or a different instrument needs to be used to encourage more participation by medical practitioners, as the number of respondents has been low in recent studies conducted in South Africa.

The perceptions of medical practitioners on doctor-patient relationship show a negative impact of managed healthcare, however, the study did not determine if trust is eroded between doctor and patient, which is the cornerstone of the relationship.

More studies are required to discover from the medical practitioners and managed health-care organisations what constitutes quality in health care. It is important to have a consistent standard of measure as currently there is reliance on individual perceptions of quality, and this will differ from individual to individual.

Qualitative studies are also needed to further investigate the goals for patients that are deemed to be achieved infrequently, as the current perceptions may be seen as 'sour grapes' by medical practitioners against the clinical oversight provided by managed health care.

5.6 Summary and conclusions

The objective of the study was to investigate the perceptions of medical practitioners towards managed health care and its implications on patient care. The rationale of conducting the study was that managed health care was implemented with mixed outcomes in other parts of the world. Few studies have been conducted in South Africa, and the perception of the medical practitioners towards managed health care has not been heard. Literature suggests that the majority of medical practitioners hold negative perceptions of managed health care. The study was conducted in the northern suburbs of Johannesburg using a questionnaire. The response rate was 36%. The split of medical practitioners who are specialists and general practitioners was 47% and 53% respectively. The overall perceptions of the medical practitioners were negative and impacted negatively towards patient care. Medical practitioners who are contracted to managed health care felt that managed health care had no impact towards patient care. The following conclusions are made from the study:

Medical practitioners perceive managed healthcare to have a negative impact on doctor-patient relationship.

Medical practitioners contracted to a managed health-care organisation perceive managed health care to have no impact on the doctor-patient relationship.

Medical practitioners perceive managed healthcare to have a negative impact on carrying out their ethical obligations towards the patients.

Medical practitioners who are contracted to a managed health-care organisation perceive managed health care to have no impact on their ability to carry out their ethical obligations.

Medical practitioners perceive managed health-care limitations to have a negative impact on the provision of quality care.

Medical practitioners perceive managed health care to be consistent in reducing expenditures and unnecessary procedures.

Medical practitioners perceive managed health care to be inconsistent in improving patient outcomes.

Experienced medical practitioners with more than 15 years of running a private practice felt strongly about managed health care being a hindrance to carrying out their ethical obligations.

Medical practitioners contracted to managed health-care organisations perceive managed health care to achieve the patient goals consistently.

It can thus be concluded that the majority of the medical practitioners in the northern suburbs of Johannesburg hold negative perceptions towards managed health care and believe managed health care impacts negatively on patient care.

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Appendix A: Questionnaire

Section A: Background information.

1. Suburb: .....

2. Speciality:

GP	Physician	Specialist Physician	other

If other, please specify.....

3. Age (years):

20-29	30-39	40-49	50-59	60years or older

4. Gender:

MALE	FEMALE

5. Number of years in private practice:

0 -5	5-10	10-15	More than 15 years

6. Work commitment:

Part-time	Full-time

7. Are you contracted to a managed healthcare organisation?

YES	NO

Section B

This section explores your perceptions and attitude regarding managed healthcare.

Please indicate by using the following 5-point scales below:

What effect does managed healthcare have on each on the following aspects of the doctor-patient relationship?

	Very Negative Effect	Negative Effect	Neutral	Positive Effect	Very Positive Effect
8. Medical practitioners' obligation to put patient first	1	2	3	4	5
9. Patient choice in medical practitioner	1	2	3	4	5
10. Patient choice in medical decisions	1	2	3	4	5
11. Continuity of the doctor-patient relationship	1	2	3	4	5
12. Communication between medical practitioner and patient	1	2	3	4	5
13. Overall doctor-patient relationship	1	2	3	4	5

What effect does managed healthcare have on the ability of the medical practitioner to carry out the following ethical obligations?

	Very Negative Effect	Negative Effect	No Effect	Positive Effect	Very Positive Effect
14. Medical practitioners' ethical obligations overall	1	2	3	4	5

15. Avoid conflict of interest between patients and medical practitioner's financial interest	1	2	3	4	5
16. Place patients' best interest first	1	2	3	4	5
17. Respect patients' autonomy	1	2	3	4	5
18. Respect patients' confidentiality	1	2	3	4	5
19. Obtain patients' informed consent	1	2	3	4	5
20. Provide patients with information regarding diagnostic and therapeutic options	1	2	3	4	5

Level of agreement with statements about managed healthcare and patients enrolled in managed healthcare?

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
21. Cost reduction takes priority over quality of patient care	1	2	3	4	5
22. Patients have more difficulty reaching their doctor	1	2	3	4	5
23. Managed healthcare patients have higher expectations of the doctor than private patients	1	2	3	4	5
24. Emphasis on increased productivity leaves doctors with less time to spend with patients	1	2	3	4	5

25. Patients see doctor gatekeeper as adversary	1	2	3	4	5

What impact do the following managed healthcare limitations make on the quality of patient care?

	Very Negative Impact	Negative Impact	Neutral	Positive Impact	Very Positive Impact
26. Length of hospital stay	1	2	3	4	5
27. Sites of diagnostic procedures and test	1	2	3	4	5
28. Frequency of visits to specialists	1	2	3	4	5
29. Frequency of visits to a general practitioner	1	2	3	4	5
30. Choice of specialists	1	2	3	4	5
31. Choice of a general practitioner	1	2	3	4	5
32. Location of hospitalisations.	1	2	3	4	5

In your experience, how often are the following goals achieved under managed healthcare?

	Very Infrequently	Infrequently	Neither Infrequently Nor Frequently	Frequently	Very Frequently
33. Effective use of quality assurance techniques	1	2	3	4	5
34. Provision of preventative medical care	1	2	3	4	5
35. Improved patient outcomes	1	2	3	4	5
36. Provision of better treatment	1	2	3	4	5
37. Reduction of expenditures	1	2	3	4	5
38. Reduction of unnecessary services	1	2	3	4	5

Thank you for your co-operation in completing the questionnaire. Please provide your email address below if you

wish to receive a copy of the results: .....

Appendix B: Frequencies and Descriptives

Section A: Background Information

A1 Suburb					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rivonia	3	3.7	3.7	3.7
	Sandton	9	11.1	11.1	14.8
	Midrand	12	14.8	14.8	29.6
	Fourways	11	13.6	13.6	43.2
	Rosebank	8	9.9	9.9	53.1
	Parktown	5	6.2	6.2	59.3
	Bryanston	5	6.2	6.2	65.4
	Morningside	18	22.2	22.2	87.7
	Killarney	2	2.5	2.5	90.1
	Craighall Park	3	3.7	3.7	93.8
	Jukskei Park	4	4.9	4.9	98.8
	Randburg	1	1.2	1.2	100.0
	Total	81	100.0	100.0	

A2 Speciality					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	GP	41	50.6	50.6	50.6
	Physician	3	3.7	3.7	54.3
	Specialist Physician	34	42.0	42.0	96.3

	Other	3	3.7	3.7	100.0
	Total	81	100.0	100.0	

A3 Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20-29	1	1.2	1.3	1.3
	30-39	21	25.9	26.3	27.5
	40-49	21	25.9	26.3	53.8
	50-59	22	27.2	27.5	81.3
	60 years or older	15	18.5	18.8	100.0
	Total	80	98.8	100.0	
Missing	System	1	1.2		
Total		81	100.0		

A4 Gender				
	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Male	48	59.3	60.8	60.8
	Female	31	38.3	39.2	100.0
	Total	79	97.5	100.0	
Missing	System	2	2.5		
Total		81	100.0		
A5 Number of years in private practice					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-5	11	13.6	13.6	13.6
	5-10	13	16.0	16.0	29.6
	10-15	11	13.6	13.6	43.2
	More than 15 years	46	56.8	56.8	100.0
	Total	81	100.0	100.0	
A6 Work commitment					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Part-time	11	13.6	13.6	13.6
	Full-time	70	86.4	86.4	100.0
	Total	81	100.0	100.0	
A7 Are you contracted to a managed healthcare organisation?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	16	19.8	19.8	19.8
	No	65	80.2	80.2	100.0
	Total	81	100.0	100.0	

Section B:

Section B1. What effect does managed healthcare have on each of the following aspects of the doctor-patient relationship?							
		Very Negative Effect	Negative Effect	Neutral	Positive Effect	Very Positive Effect	Total
B8 Medical practitioners' obligation to put patient first	Count	19	34	17	6	4	80
	Row N %	23.8%	42.5%	21.3%	7.5%	5.0%	100.0 %
B9 Patient choice in medical practitioner	Count	32	26	9	8	5	80
	Row N %	40.0%	32.5%	11.3%	10.0%	6.3%	100.0 %
B10 Patient choice in medical decisions	Count	25	24	18	8	4	79
	Row N %	31.6%	30.4%	22.8%	10.1%	5.1%	100.0 %
B11 Continuity of the doctor-patient relationship	Count	17	26	19	11	7	80
	Row N %	21.3%	32.5%	23.8%	13.8%	8.8%	100.0 %
B12 Communication between medical practitioner and patient	Count	9	22	33	9	7	80
	Row N %	11.3%	27.5%	41.3%	11.3%	8.8%	100.0 %
B13 Overall doctor-patient relationship	Count	9	38	19	6	8	80
	Row N %	11.3%	47.5%	23.8%	7.5%	10.0%	100.0 %

Statistics								
	N		Mean	Median	Mode	Std. Deviation	Minimum	Maximum
	Valid	Missing						
B8	80	1	2.28	2.00	2	1.067	1	5
B9	80	1	2.10	2.00	1	1.218	1	5
B10	79	2	2.27	2.00	1	1.163	1	5
B11	80	1	2.56	2.00	2	1.221	1	5
B12	80	1	2.79	3.00	3	1.076	1	5
B13	80	1	2.58	2.00	2	1.111	1	5

Section B2. What effect does managed healthcare have on the ability of the medical practitioner to carry out the following ethical obligations?							
		Very Negative Effect	Negative Effect	Neutral	Positive Effect	Very Positive Effect	Total
B14 Medical practitioners' ethical obligations overall	Count	17	31	24	7	1	80
	Row N %	21.3%	38.8%	30.0%	8.8%	1.3%	100.0%
B15 Avoid conflict of interest between patients and medical	Count	13	32	22	9	3	79
	Row N %	16.5%	40.5%	27.8%	11.4%	3.8%	100.0%

practitioner's financial interest							
B16 Place patients' best interest first	Count	24	31	15	7	3	80
	Row N %	30.0%	38.8%	18.8%	8.8%	3.8%	100.0%
B17 Respect patients' autonomy	Count	24	25	17	10	4	80
	Row N %	30.0%	31.3%	21.3%	12.5%	5.0%	100.0%
B18 Respect patients' confidentiality	Count	12	22	30	10	5	79
	Row N %	15.2%	27.8%	38.0%	12.7%	6.3%	100.0%
B19 Obtain patients' informed consent	Count	5	10	49	9	5	78
	Row N %	6.4%	12.8%	62.8%	11.5%	6.4%	100.0%
B20 Provide patients with information regarding diagnostic and therapeutic options	Count	9	19	34	12	6	80
	Row N %	11.3%	23.8%	42.5%	15.0%	7.5%	100.0%

Statistics

	N		Mean	Median	Mode	Std. Deviation	Minimum	Maximum
	Valid	Missing						
B14	80	1	2.30	2.00	2	.947	1	5
B15	79	2	2.46	2.00	2	1.023	1	5
B16	80	1	2.18	2.00	2	1.077	1	5
B17	80	1	2.31	2.00	2	1.176	1	5

B18	79	2	2.67	3.00	3	1.083	1	5
B19	78	3	2.99	3.00	3	.875	1	5
B20	80	1	2.84	3.00	3	1.061	1	5

Section B3. Level of agreement with statements about managed healthcare and patients enrolled in managed healthcare?							
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
B21 Cost reduction takes priority over quality of patient care	Count	13	8	8	27	24	80
	Row N %	16.3%	10.0%	10.0%	33.8%	30.0%	100.0%
B22 Patients have more difficulty reaching their doctor	Count	1	7	16	41	14	79
	Row N %	1.3%	8.9%	20.3%	51.9%	17.7%	100.0%
B23 Managed healthcare patients have higher expectations of the doctor than private patients	Count	9	20	31	15	5	80
	Row N %	11.3%	25.0%	38.8%	18.8%	6.3%	100.0%
B24 Emphasis on increased productivity leaves doctors with less time to	Count	4	5	16	41	14	80
	Row N %	5.0%	6.3%	20.0%	51.3%	17.5%	100.0%

spend with patients							
B25 Patients see doctor gatekeeper as adversary	Count	1	10	25	34	10	80
	Row N %	1.3%	12.5%	31.3%	42.5%	12.5%	100.0%

Statistics

	N		Mean	Median	Mode	Std. Deviation	Minimum	Maximum
	Valid	Missing						
B21	80	1	3.51	4.00	4	1.432	1	5
B22	79	2	3.76	4.00	4	.895	1	5
B23	80	1	2.84	3.00	3	1.061	1	5
B24	80	1	3.70	4.00	4	.999	1	5
B25	80	1	3.53	4.00	4	.914	1	5

Section B4. What impact do the following managed healthcare limitations make on the quality of patient care?

		Very Negative Effect	Negative Effect	Neutral	Positive Effect	Very Positive Effect	Total
B26 Length of hospital stay	Count	6	33	31	8	1	79
	Row N %	7.6%	41.8%	39.2%	10.1%	1.3%	100.0%
B27 Sites of diagnostic procedures and test	Count	15	45	11	7	1	79
	Row N %	19.0%	57.0%	13.9%	8.9%	1.3%	100.0%
	Count	13	37	13	14	2	79

B28 Frequency of visits to specialists	Row N %	16.5%	46.8%	16.5%	17.7%	2.5%	100.0%
B29 Frequency of visits to a general practitioner	Count	6	35	24	10	2	77
	Row N %	7.8%	45.5%	31.2%	13.0%	2.6%	100.0%
B30 Choice of specialists	Count	34	32	7	5	1	79
	Row N %	43.0%	40.5%	8.9%	6.3%	1.3%	100.0%
B31 Choice of a general practitioner	Count	19	36	15	5	2	77
	Row N %	24.7%	46.8%	19.5%	6.5%	2.6%	100.0%
B32 Location of hospitalisations	Count	24	37	11	5	2	79
	Row N %	30.4%	46.8%	13.9%	6.3%	2.5%	100.0%

Statistics

	N		Mean	Median	Mode	Std. Deviation	Minimum	Maximum
	Valid	Missing						
B26	79	2	2.56	3.00	2	.828	1	5
B27	79	2	2.16	2.00	2	.883	1	5
B28	79	2	2.43	2.00	2	1.046	1	5
B29	77	4	2.57	2.00	2	.909	1	5
B30	79	2	1.82	2.00	1	.930	1	5
B31	77	4	2.16	2.00	2	.961	1	5
B32	79	2	2.04	2.00	2	.967	1	5

Section B5. In your experience, how often are the following goals achieved under managed healthcare?							
		Very Infrequently	Infrequently	Neither Infrequently Nor Frequently	Frequently	Very Frequently	Total
B33 Effective use of quality assurance techniques	Count	9	23	34	13	0	79
	Row N %	11.4%	29.1%	43.0%	16.5%	0.0%	100.0%
B34 Provision of preventative medical care	Count	13	22	25	18	1	79
	Row N %	16.5%	27.8%	31.6%	22.8%	1.3%	100.0%
B35 Improved patient outcomes	Count	15	30	17	14	2	78
	Row N %	19.2%	38.5%	21.8%	17.9%	2.6%	100.0%
B36 Provision	Count	18	37	14	7	4	80

of better treatment	Row N %	22.5%	46.3%	17.5%	8.8%	5.0%	100.0 %
B37 Reduction of expenditures	Count	10	14	24	28	4	80
	Row N %	12.5%	17.5%	30.0%	35.0%	5.0%	100.0 %
B38 Reduction of unnecessary services	Count	8	16	27	25	4	80
	Row N %	10.0%	20.0%	33.8%	31.3%	5.0%	100.0 %

Statistics

	N		Mean	Median	Mode	Std. Deviation	Minimum	Maximum
	Valid	Missing						
B33	79	2	2.65	3.00	3	.892	1	4
B34	79	2	2.65	3.00	3	1.050	1	5
B35	78	3	2.46	2.00	2	1.077	1	5
B36	80	1	2.28	2.00	2	1.067	1	5
B37	80	1	3.03	3.00	4	1.113	1	5
B38	80	1	3.01	3.00	3	1.061	1	5

Appendix C: Test for normality.

Tests of Normality (Specialty)

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Mean_SecB1	GP	.200	40	.000	.866	40	.000
	Physician / Specialist Physician	.166	37	.012	.902	37	.003
Mean_SecB2	GP	.169	40	.006	.926	40	.012
	Physician / Specialist Physician	.157	37	.022	.940	37	.045
Mean_SecB3	GP	.141	40	.045	.945	40	.051
	Physician / Specialist Physician	.144	37	.052	.952	37	.114
Mean_SecB4	GP	.176	40	.003	.933	40	.020
	Physician / Specialist Physician	.172	37	.008	.893	37	.002
Mean_SecB5	GP	.137	40	.058	.957	40	.131
	Physician / Specialist Physician	.139	37	.067	.942	37	.055
a. Lilliefors Significance Correction							

Tests of Normality (Gender)							
		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Mean_SecB1	Male	.167	47	.002	.927	47	.006
	Female	.196	31	.004	.877	31	.002
Mean_SecB2	Male	.127	47	.057	.946	47	.029
	Female	.125	31	.200*	.964	31	.372
Mean_SecB3	Male	.130	47	.046	.951	47	.046
	Female	.178	31	.013	.945	31	.115
Mean_SecB4	Male	.167	47	.002	.927	47	.006
	Female	.164	31	.033	.948	31	.136

Mean_SecB5	Male	.142	47	.019	.947	47	.034
	Female	.133	31	.171	.968	31	.462
*. This is a lower bound of the true significance.							
a. Lilliefors Significance Correction							

Tests of Normality (work experience)							
		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Mean_SecB1	15 years or less	.187	35	.003	.911	35	.008
	More than 15 years	.188	45	.000	.864	45	.000
Mean_SecB2	15 years or less	.126	35	.179	.962	35	.271
	More than 15 years	.141	45	.026	.928	45	.008
Mean_SecB3	15 years or less	.127	35	.168	.956	35	.179
	More than 15 years	.126	45	.069	.942	45	.025
Mean_SecB4	15 years or less	.154	35	.036	.937	35	.045
	More than 15 years	.182	45	.001	.905	45	.001
Mean_SecB5	15 years or less	.114	35	.200*	.976	35	.628
	More than 15 years	.172	45	.002	.916	45	.003
*. This is a lower bound of the true significance.							
a. Lilliefors Significance Correction							

Tests of Normality (Contract with managed healthcare)							
		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Mean_SecB1	Yes	.141	16	.200*	.950	16	.486
	No	.199	64	.000	.874	64	.000
Mean_SecB2	Yes	.142	16	.200*	.934	16	.282

	No	.106	64	.074	.967	64	.089
Mean_SecB3	Yes	.126	16	.200*	.948	16	.465
	No	.133	64	.006	.941	64	.004
Mean_SecB4	Yes	.156	16	.200*	.958	16	.623
	No	.165	64	.000	.928	64	.001
Mean_SecB5	Yes	.165	16	.200*	.937	16	.312
	No	.119	64	.024	.960	64	.038
*. This is a lower bound of the true significance.							
a. Lilliefors Significance Correction							

Appendix D: Comparisons between groups (Non Parametric test)

Ranks (Specialty)				
		N	Mean Rank	Sum of Ranks
Mean_SecB1	GP	40	42.89	1715.50
	Physician / Specialist Physician	37	34.80	1287.50
	Total	77		
Mean_SecB2	GP	40	43.34	1733.50
	Physician / Specialist Physician	37	34.31	1269.50
	Total	77		
Mean_SecB3	GP	40	39.05	1562.00
	Physician / Specialist Physician	37	38.95	1441.00

	Total	77		
Mean_SecB4	GP	40	41.89	1675.50
	Physician / Specialist Physician	37	35.88	1327.50
	Total	77		
Mean_SecB5	GP	40	41.28	1651.00
	Physician / Specialist Physician	37	36.54	1352.00
	Total	77		

Test Statistics[a]				
	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
Mean_SecB1	584.500	1287.500	-1.592	.111
Mean_SecB2	566.500	1269.500	-1.777	.076
Mean_SecB3	738.000	1441.000	-.021	.984
Mean_SecB4	624.500	1327.500	-1.184	.236
Mean_SecB5	649.000	1352.000	-.934	.350
a. Grouping Variable: rA2				

Ranks (Gender)				
A4		N	Mean Rank	Sum of Ranks
Mean_SecB1	Male	47	39.32	1848.00
	Female	31	39.77	1233.00
	Total	78		
Mean_SecB2	Male	47	38.45	1807.00
	Female	31	41.10	1274.00
	Total	78		
Mean_SecB3	Male	47	37.29	1752.50
	Female	31	42.85	1328.50
	Total	78		

Mean_SecB4	Male	47	38.98	1832.00
	Female	31	40.29	1249.00
	Total	78		
Mean_SecB5	Male	47	37.39	1757.50
	Female	31	42.69	1323.50
	Total	78		

Test Statistics[a]				
	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
Mean_SecB1	720.000	1848.000	-.087	.931
Mean_SecB2	679.000	1807.000	-.507	.612
Mean_SecB3	624.500	1752.500	-1.069	.285
Mean_SecB4	704.000	1832.000	-.252	.801
Mean_SecB5	629.500	1757.500	-1.017	.309
a. Grouping Variable: A4				

Ranks (Work experience)				
		N	Mean Rank	Sum of Ranks
Mean_SecB1	15 years or less	35	45.23	1583.00
	More than 15 years	45	36.82	1657.00
	Total	80		
Mean_SecB2	15 years or less	35	46.50	1627.50
	More than 15 years	45	35.83	1612.50
	Total	80		
Mean_SecB3	15 years or less	35	36.43	1275.00
	More than 15 years	45	43.67	1965.00
	Total	80		
Mean_SecB4	15 years or less	35	41.74	1461.00

	More than 15 years	45	39.53	1779.00
	Total	80		
Mean_SecB5	15 years or less	35	49.16	1720.50
	More than 15 years	45	33.77	1519.50
	Total	80		

Test Statistics[a]				
	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
Mean_SecB1	622.000	1657.000	-1.611	.107
Mean_SecB2	577.500	1612.500	-2.045	.041
Mean_SecB3	645.000	1275.000	-1.392	.164
Mean_SecB4	744.000	1779.000	-.424	.672
Mean_SecB5	484.500	1519.500	-2.956	.003
a. Grouping Variable: rA5				

Ranks (Contracted to managed healthcare)				
		N	Mean Rank	Sum of Ranks
Mean_SecB1	Yes	16	53.03	848.50
	No	64	37.37	2391.50
	Total	80		
Mean_SecB2	Yes	16	54.00	864.00
	No	64	37.13	2376.00
	Total	80		
Mean_SecB3	Yes	16	32.94	527.00
	No	64	42.39	2713.00
	Total	80		
Mean_SecB4	Yes	16	47.34	757.50
	No	64	38.79	2482.50

	Total	80		
Mean_SecB5	Yes	16	60.03	960.50
	No	64	35.62	2279.50
	Total	80		

Test Statistics[a]				
	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
Mean_SecB1	311.500	2391.500	-2.421	.015
Mean_SecB2	296.000	2376.000	-2.608	.009
Mean_SecB3	391.000	527.000	-1.466	.143
Mean_SecB4	402.500	2482.500	-1.324	.186
Mean_SecB5	199.500	2279.500	-3.781	.000
a. Grouping Variable: A7				