THE DEVELOPMENT OF A SOUTH AFRICAN MEDICAL PRACTITIONERS COMPETENCY QUESTIONNAIRE

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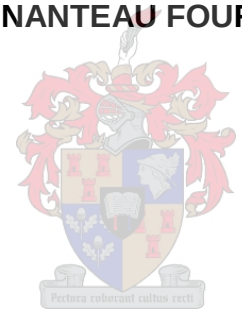

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ABSTRACT

Medical practitioners are without a doubt one of the most fundamental role players in the functioning of hospitals and community health. The fraternity of industrial psychology can contribute to interventions ensuring optimal medical practitioner performance. The long-term objective of the study is to develop and test a medical practitioner competency model which is a structural model that reflects the medical practitioner competency potential variables, the situational variables as well as the competencies (behaviours) and outcomes that constitute medical practitioner performance. However, this objective was deemed slightly too ambitious for a single research study and consequently only the first phase of this research was done. This research aims to determine what behaviours constitute medical practitioner performance success. The research objectives were twofold. Firstly, to constitutively define the medical practitioner performance construct by developing a partial competency model and secondly, to develop a South African behavioural performance measure that could eventually be used to obtain multi-rater assessments of the latent behavioural variables in the partial South African Medical Practitioner's Competency Model.

From the literature study a partial medical practitioner competency model was developed that explicates the different latent behavioural and outcome variables comprising job performance of medical practitioners and the manner in which these latent variables are structurally interrelated. The South African research on this topic is extremely limited and therefore research had to be done to determine the competencies relevant to the South African context.

A qualitative research approach was adopted to discover what behaviours are required for effective medical practitioner performance. In depth interviews were conducted utilising both the Repertory Grid and the Critical Incident Technique. This combination of techniques was highly effective in that the research question was investigated from different positions. The repertory grid phase of the interview allowed participants to contrast different behaviours in relation to medical practitioner performance which mainly lead to the identification of themes that was not identified in the literature review. During the critical incident phase of the interview the participants described specific behaviours in translating the meaning of the identified competencies in the South African context. Due to the exploratory nature of this research study an interpretivism research paradigm was adopted. A sample of seven family physician (specialised medical practitioners) was used in the data gathering phase. All participants are also employed in a supervisory role at respective public hospitals in South Africa.

Through thematic analysis thirty-two distinct first-order themes relating to medical practitioner performance was elicited. These themes were contrasted with the competencies identified from literature and it were established that 31% of the themes were additional to the identified competencies from the literature study. The researcher categorised the first-order themes into eleven second-order themes.

The behavioural denotations presented by the participants were used to write items for the South African Medical Practitioner Competency Questionnaire (SAMPCQ). The questionnaire still needs to be validated in future before it could be adopted in practice. The SAMPCQ could be used in future for performance evaluations and to determine developmental areas of medical practitioners. The South African Medical Practitioner Competency Model (SAMPCM) will eventually indicate the outcomes, competencies and competency potential required for effective medical practitioner performance. This contribution can assist with selection processes on tertiary level and development on a tertiary and post-tertiary level as the factors contributing to successful medical practitioner performance are understood.

OPSOMMING

Mediese praktisyns is sonder twyfel een van die mees fundamentele rolspelers in die effektiewe bedryf van hospitale en gemeenskap gesondheid. Die Bedryfsielkunde professie kan bydra tot prestasieverbetering-intervensies vir mediese praktisyns, deur die ontwikkeling van prestasie-meetinstrumente. Die langtermyn doel van hierdie studie is om 'n strukturele mediese praktisynbevoegdheidsmodel te ontwikkel en te toets, wat die bevoegdheidspotensiaal, die situasie veranderlikes asook die bevoegdhede (gedrag) en uitkomste wat mediese praktisyn prestasie uitmaak, weerspieël. Hierdie doelwit was as effens te ambisieus geag vir ‘n enkele navorsingstudie en gevolglik was slegs die eerste fase van die navorsing gedoen in die studie. Die navorsingstudie poog om te bepaal watter gedrag bydra tot die uiteindelike sukses van ‘n doeltreffende mediese praktisyn. Die navorsingsdoelwitte was tweeledig; eerstens, om konstitutief die mediese praktisyn prestasie-konstruk te definieer deur die 'n gedeeltelike bevoegdheidsmodel te ontwikkel, en tweedens, om 'n Suid-Afrikaanse gedragsprestasie-meetinstrument te ontwikkel wat uiteindelik gebruik kan word om 'n multi-assessering van die latente gedragsveranderlikes te verkry in die gedeeltelike Suid-Afrikaanse Mediese Praktisyn Bevoegdheidsmodel.

'n Gedeeltelike mediese praktisyn bevoegdheidsmodel is ontwikkel vanuit die literatuurstudie wat uit die verskillende latente gedrags- en uitkoms veranderlikes bestaan, wat werkprestasie van mediese praktisyns en die wyse waarop hierdie latente veranderlikes struktureel interafhanklik, uiteensit. Suid-Afrikaanse navorsing rakende hierdie onderwerp is uiters beperk en daarom word navorsing op mediese praktisynprestasie in die Suid Afrikaanse konteks benodig.

Die doelstelling van hierdie studie is dus om tot ‘n dieper begrip van mediese praktisynprestasie te kom. In-diepte onderhoude was gevoer met behulp van beide die repertoirerooster tegniek (‘repertory grid technique’) en die kritieke insidenttegniek. Hierdie kombinasie van tegnieke was hoogs effektief aangesien die navorsingsvraag vanuit verskillende posisies ondersoek kon word. Die repertoirerooster het die deelnemers toegelaat om verskillende gedragsankers te identifiseer, wat betrekking het op mediese praktisynprestasie. Die geïdentifiseerde gedragsankers het uiteindelik bygedra tot die vasstelling van nuwe bevoegdhede wat nie geïdentifiseer was vanuit die literatuuroorsig nie. Tydens die kritieke insidentfase van die onderhoude het deelnemers spesifieke senarios beskryf waartydens voorbeelde van effektiewe en minder effektiewe gedrag, van die geïdentifiseerde bevoegdhede, aangedui was. As gevolg van die ondersoekende aard van hierdie navorsingstudie is 'n interpretivisme navorsingsparadigma aangeneem. 'n Steekproef van sewe huisartse (gespesialiseerde mediese praktisyns) is gebruik in die data-

insamelingsfase. Alle deelnemers is tans ook aangestel in 'n toesighoudende rol by onderskeie publieke hospitale in Suid-Afrika.

Deur tematiese ontleding is twee-en-dertig afsonderlike eerste-orde temas geïdentifiseer wat betrekking het tot mediese praktisynprestasie. Hierdie twee-en-dertig temas is vergelyk met die geïdentifiseerde bevoegdhede wat via die literatuuroorsig geïdentifiseer is en dit is vasgestel dat 31% van die temas bykomend was tot die bevoegdhede wat uit die literatuurstudie geïdentifiseer is. Die eerste-orde temas is in elf tweede-orde temas gekategoriseer.

Die gedragsdenotasies, voorgestel deur die deelnemers, is gebruik om items vir die Suid-Afrikaanse Mediese Praktisyn Bevoegdheidsvraelys (SAMPCQ) te skryf. Die vraelys moet in die toekoms gevalideer word voordat dit in die praktyk gebruik mag word. Die SAMPCQ kan in die toekoms gebruik word vir prestasie evaluerings en vir die identifisering van ontwikkelings areas van mediese praktisyns. Die Suid-Afrikaanse Mediese Praktisyn Bevoegdheidsmodel (SAMPCM) sal uiteindelik die uitkomste, bevoegdhede en bevoegdheidspotensiaal vir doeltreffende geneesheerprestasie aandui. Indien die geïdentifiseerde faktore toegepas word tydens seleksie prosesse op tersiêre vlak, asook ontwikkeling op 'n tersiêre en post-tersiêre vlak, sal dit bydra tot suksesvolle geneesheerprestasie.

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This research was conducted with the ideal that it would contribute to the eventual improved performance of the public healthcare sector of South Africa. I dedicate this work to our future medical practitioners.

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“I can do all things through Him who strengthens me”

Philippians 4:13

CHAPTER 1
RESEARCH INITIATING QUESTION AND RESEARCH OBJECTIVES

1.1 Introduction

Various different organisations exist in a country to provide for the different needs of the nation. Organisations are man-made entities that exist to combine, refine and transform inputs, such as raw material and labour, into outputs in the form of products and services with economic utility. Organisations, both in the private sector and public sector, are guided in this endeavour by the economic principle. The economic principle dictates that the market value of the outputs should exceed the value of the inputs that were committed to create the output. The economic principle commands, on behalf of society, that organisations should strive to attain the highest possible output of need satisfying products and/or services with the lowest possible input of production factors. Organisations serve society through the efficiency with which they combine and transform scarce factors of production into products or services. Profitability should be interpreted as a yardstick to assess the rationality with which organisations serve society (Matsebula & Willie, 2012).

The human resource function is a member of a family of organisational functions aimed at ensuring organisational success. The human resource function justifies its inclusion in the family of organisational functions through its commitment to contribute towards organisational goals. The human resource function contributes to the production of a market satisfying product or service whose market value exceeds the investment value required to produce it by affecting the performance of employees through an integrated and coordinated network of human resource management interventions. Human resource management interventions can be expected to affect the performance of employees if it is rooted in a valid performance theory. The level of performance achieved by employees is not a random event. Rather, the level of performance achieved by employees is determined by a complex nomological network of latent variables characterising the employee and his/her working environment. A valid understanding of the manner in which these latent variables structurally combine to affect performance is a prerequisite for the derivation of purposeful and rational human resource interventions that can be expected to improve performance.

Probably one of the most vital categories of services is the service rendered by the healthcare sector. Healthcare is crucial for the well-being of the people in a country. Healthy employees contribute to organisational success through being more productive and less absent than unhealthy employees, thus supporting the economic principle. The purpose of the healthcare sector is to cure and prevent diseases. Ineffective healthcare systems can negatively affect working individuals and decrease individual performance. This has a direct

impact on the profitability of a company and, consequently, the economy of a country. Sufficient healthcare is therefore necessary to maintain social well-being and also a stable economy. The Health Minister of South Africa, Aaron Motsoaledi, proclaimed in 2012 that patient care is declining even though South Africa spends much more on healthcare than numerous other countries (News24, 2012). Considering the declining efficiency of the healthcare sector in South Africa, serious attention ought to be given towards improving the healthcare sector in order to improve overall patient care.

South Africa's healthcare sector consists of public and private healthcare services. In South Africa the state tends to provide the basic primary healthcare, whereas the private sector tends to provide additional more sophisticated, high-technology medical services. Most public healthcare facilities are under-resourced and over-crowded with patients, where the private sector is commercially orientated and provide for middle- and high-income groups.

It is required of the public sector to provide medical care to approximately 80% of the population (South Africa.info, 2012; Matsebula & Willie, 2012). Unfortunately, the majority of resources are only available in the private health sector, which provides health services to the remaining approximately 20% of the country Health Care in South Africa, 2012; Matsebula & Willie, 2012). Due to the public sector being overcrowded with patients and frequently under resourced, it is important that the resources that are available should be managed effectively and efficiently to sufficiently provide for the general populations' medical needs. Whether it is the private or the public healthcare sector, it is required of all healthcare facilities to provide adequate healthcare services.

The healthcare sector in South Africa includes facilities such as nursing homes, healthcare clinics, rehabilitation institutions and hospitals. Hospitals are probably the most significant part of the health sector as people with the most serious and urgent medical predicaments are treated there. The Encyclopedia of Bioethics (2004, p. 1181) defines hospitals as "complicated institutions that bring together technological innovations and social services, salaried and unsalaried personnel, private and public funding, a charitable mission, and a business orientation". Hospitals play a vital role in the health and well-being of the general public.

Hospitals are responsible not only for their patients, but also for their physicians, general doctors, nurses, other employees, financial providers, and the local community. In this institution it is necessary that the medical staff perform their jobs effectively in order to save lives. It is therefore important to maintain an excellent human resource strategy combined with the necessary policies to manage the human capital of hospitals effectively and efficiently.

Although private and public hospitals both exist to serve patients in need of medical attention, they do differ from one another. In private hospitals the selection and provision of services are guided by the expectations of shareholders. Private hospitals are profit-driven organisations and considerable attempts are made to ensure that the highest quality of healthcare is provided in this industry. The competitive priorities of the private sector have established services that would otherwise not have been provided by the public sector (Matsebula & Willie, 2012).

Public hospitals are managed by the provincial Departments of Health. Although public hospitals are not profit-driven they nonetheless still have to comply with the economic principle. Public hospitals are burdened with an overload of patients and therefore bed-turnover and successful patient care are crucial outcomes of success for these institutes.

In South Africa, the public hospital system is under immense pressure. In many of these facilities medical service delivery is poor, issues and breakdowns are not addressed, management is dysfunctional, and there is a lack of effective organisational systems. The hospital personnel are under strain due to high workloads, lack of resources, high levels of conflict and poor labour relations. All of these problems lead to poor patient health outcomes such as inadequate patient care and increased costs of poorly managed illnesses (Von Holdt & Murphy, 2006).

There has been great concern in the media about public hospitals over the past few years. It appears that public hospitals do not always have, or apply, a sufficient human resource management (HMR) strategy to manage personnel so that they can perform effectively and efficiently. It is to a certain degree ironic that public hospitals are “sick” organisations in desperate need of professional diagnosis and treatment. It appears as if there exists a need to understand what constitutes hospital success to eventually improve patient care.

In an attempt to offer better medical service to all income groups the National Health Insurance (NHI) scheme was proposed in 2009. The NHI is a health strategy that aims to end inequalities between the public and private healthcare sectors. For this proposal to be successful, it is essential that public hospitals and clinics are upgraded (Health-e, 2010). Along with other technical adjustments, it is important that a HRM strategy is in place and maintained. A HRM strategy should however be relevant to the specific requirements of the organisation and be implemented consistently with all hospital employees in order to be effective and successful.

Human resources in the health sector are constituted by the variety of medical and non-medical personnel, directly or indirectly, responsible for patient health. The success that

hospitals, as organisations, achieve and the benefits that accrue to society depend upon the knowledge, skills, behaviours and motivation of the employees. The human resource function contributes to the rendering of a market satisfying service by affecting the performance of medical and non-medical personnel responsible for patient health. This is achieved through an integrated and coordinated network of human resource management interventions serving a HRM strategy, aimed at ensuring a supply of medical and non-medical personnel with the capacity to effectively and efficiently perform in their jobs. In addition, medical and non-medical personnel responsible for patient health need the necessary equipment to do their work (Kabene, Orchard, Howard, Soriano, & Leduc, 2006). Effective management is required to manage both human and physical resources to achieve organisational success as well as improved patient care.

A combination of medical and non-medical personnel is required to ensure optimal patient healthcare. All personnel are essential in the delivery of an effective and efficient medical service. Nonetheless it could be argued that the medical practitioners - physicians or doctors – are fundamental to the functioning of healthcare facilities such as hospitals and clinics.

The role of a medical practitioner is to examine and diagnose the sick or injured, and seek a means to assist them by providing them with a treatment plan. Medical practitioners are usually the first point of contact for patients with a medical condition. In providing healthcare services to patients, medical practitioners furthermore direct and guide other healthcare professionals, such as nurses, on how to take care of patients. Should the patient's medical problem fall outside the scope of the medical practitioner's practice the patient would be referred to a specialist, such as a neurologist or oncologist. Medical practitioners can be seen as indirect sellers of hospital services (Matsebula & Willie, 2012), as their decisions establish the quality of healthcare in these facilities, making it impossible for hospitals to exist without them.

Given the key role that medical practitioners play in the healthcare sector it is important that they successfully perform in their jobs, and that their performance should consequently be carefully monitored and managed to ensure this success. To successfully monitor medical practitioner performance, firstly requires that the connotative meaning of the performance construct should be clear and secondly that a reliable, valid, and unbiased measure of performance is available. To proactively and reactively manage the performance of medical practitioners through an integrated array of human resource interventions, the determinants of performance need to be validly understood. Consequently, a structural model that explicates the connotative meaning of medical practitioner performance, that clarifies the key determinants of performance and that describes the manner in which these determinants

structurally combine is required to inform and guide the interventions aimed at optimising medical practitioner performance.

Medical practitioners are only allowed to practice medicine in South Africa, if they are registered with the Health Professions Council of South Africa (HPCSA). Medical practice is a profession that requires extensive training and development before registration with the HPCSA is possible. The probability of medical practitioner high performance increases if the professional training and development is properly aligned with internship development and eventually also with post-employment human resource initiatives to enhance performance. The professional training and development, internship development and post-employment human resource initiatives should therefore all be informed by the same explanatory structural model.

The fraternity of Industrial Psychology can contribute to the development and validation of such an explanatory medical practitioner structural model and as part of the process also the development and validation of a suite of performance measures for the medical practitioner. The explanatory structural model that should underpin and inform the professional training and development, internship development and post-employment human resource initiatives is a medical practitioner competency model.

The idea of competency modelling in the field of industrial and organisational psychology is relatively new, but the defining and assessing of competencies are not. Root and Roberts (as cited in McClelland, 1973) described the competencies necessary for training directors in 1966. Five key competency areas were developed for managers to be effective in 1973, by Dornan (as cited in McClelland, 1973). McClelland recommended in 1973 that psychologists should focus on assessing a person's competence at task, rather than to measure their intelligence. Currently industrial and organisational psychologists perceive competency modelling as an addition to job analysis that is highly sensible from a business perspective (Schmieder & Frame, 2007). The concept of competency modelling nonetheless remains a controversial topic characterised by a fair amount of semantic confusion. Competency modelling refers to the explication of a competency model.

According to Bartram (2006, p. 1), a competency model is "a single underlying construct framework that provides a rational, consistent, and practical basis for the purpose of understanding people's behaviours at work and the likelihood of being able to succeed in certain roles and in certain environments". A competency model incorporates four broad domains of latent variables, namely competencies, competency potential, situational characteristics and outcomes. From the perspective of the current study a competency model in essence is a four-domain structural model that maps (1) a network of causally

interrelated person characteristics and (2) a network of causally interrelated situational characteristics onto (3) a network of causally interrelated key behavioural performance dimensions and that maps the latter onto (4) a network of causally interrelated outcome variables. The effect of the person characteristics on the performance dimensions and the effect of the latter on the outcome variables can potentially also be moderated by the environmental characteristics. To facilitate further discussion in terms of the competency model it is necessary to clarify the concept's competencies, competence, competency potential and outcomes.

Competencies clarify the dimensions against which employee's performance can be described and measured. They explain how knowledge and skills are applied to achieve certain job outcomes, and how it relates to performance (Bartram, 2006). Competencies describe what behaviours are necessary for an individual in order to complete the variety of tasks required of that job, together with what enables their competent performance. Employees demonstrate competence in a workplace by applying their competencies knowledge and skills in a manner that is goal-directed (Bartram, 2006).

Competence, on the other hand, concerns mastery in relation to particular goals or outcomes and it requires the ability to demonstrate mastery of specific job-relevant knowledge and skills. To measure competence of work, the performance in the workplace must be assessed against a pre-defined standard of knowledge and skills. Therefore a report on competence is in relation to the individual's achieved level of performance, measured against a set standard of work performance. Competence entails the description of tasks, functions, or objectives, and relates to performance or outcomes (Bartram, 2005).

The impetus for this study emerged from the demand for competent medical graduates and the need for development of national South African medical practitioner competencies. This was reinforced by the lack of rigorous research into core competencies and acceptable instruments developed for training and performance management purposes of medical practitioners of South Africa. Similar research was done internationally from which the CanMEDS Physician Competency Framework is probably the best known. The CanMEDS framework is an initiative through which medical practitioner roles and competencies were identified with the objective of improving patient care in Canada (Frank & Snell, 2014). Similar research has not been done in South Africa and thus presents a void in literature.

Although it would not be impossible to propose and empirically evaluate a comprehensive medical practitioner competency model in a single study it would nonetheless be a somewhat ambitious endeavour. The required comprehensive medical practitioner competency model will therefore have to be developed in phases. Since the primary focus of

any competency model is on the performance construct, it would probably make sense to identify the medical practitioner outcome latent variables, to identify the medical practitioner competencies that serve these outcome latent variables and to hypothesize the paths through which the competencies affect the outcome latent variables and schematically portray this partial competency model in phase 1. As part of phase 1, a medical practitioner competency questionnaire also needs to be developed. In phase 2 the medical practitioner competency questionnaire should be validated and a medical practitioner outcome questionnaire can be developed and validated. The competency questionnaire will then allow the structural model, that includes the competency and outcome latent variables, to be empirically tested. In phase 3 the competency potential latent variables and situational characteristics that determine the level of competence achieved on the medical practitioner competencies can then be hypothesised as well as the manner in which they causally map onto the competencies.

This will allow the empirical testing of the medical practitioner competency model in phase 3. The research initiating question that underpins the current study is presented in the next section, followed by the presentation of the research objectives.

1.2 Research Initiating Question and Research Objectives

The foregoing argument concluded that medical practitioners play a critical role in the functioning and success of hospitals. Likewise, the human resource function attempts to contribute towards the effective and efficient functioning of the hospital. The human resource function endeavours to do so by attempting to affect the performance of hospital employees in a manner that increases the efficiency and productivity of the hospital. Medical practitioners constitute a specific category of employees that warrant special attention as a result of the critical role they play in the core business of hospitals. The performance level achieved by medical practitioners is not the outcome of a random event. Rather, the performance level is systematically determined by a complex nomological network of latent variables characterising the practitioner and his/her working environment. The ability of the human resource function to affect the performance of hospital employees in a manner that adds value to the functioning of the hospital is therefore contingent on the extent to which the identity of these determining latent variables are known as well as the manner in which they combine to affect their level of performance. To develop and empirically test an explanatory medical practitioner structural model, however, requires that (a) the construct of medical practitioner performance has been validly conceptualised, and (b) a measuring instrument exists that allows for the reliable, valid and unbiased assessment of the medical practitioner performance construct.

Medical practitioner performance is not a unidimensional construct. Performance is a construct that encompasses a behavioural domain as well as an outcome domain and the content of these two domains are structurally interrelated. In the final analysis, the job of the medical practitioner exists to achieve specific latent outcome variables. Medical practitioners are expected to perform well on specific latent behavioural performance dimensions because these are assumed to be instrumental in the achievement of these desirable latent outcome variables. The success with which the outcomes for which the job exists are achieved, however, also depend on factors beyond the control of the practitioner. Outcome measures of job performance are therefore typically quite heavily contaminated by situational latent variables. Nonetheless, to obtain a penetrating understanding of the connotative meaning of medical practitioner performance, the manner in which the latent behavioural performance dimensions affect each other and how they affect the latent outcome variables should be understood.

An understanding of the determinants of medical practitioner performance and the manner in which they structurally combine to affect the level of performance is a necessary prerequisite to design and develop rational and purposeful human resource interventions aimed at improving medical practitioner performance. Before the field of Industrial Psychology can contribute to this understanding, the connotative meaning of the construct of medical practitioner performance should first be made explicit. Once the medical practitioner performance construct has been conceptualised it will be possible to develop a complex hypothesis on the psychological mechanism that determines the level of performance that practitioners actually achieve. To test such a hypothesis will, however, also require valid measures of the medical practitioner performance construct. Since the performance construct encompasses a behavioural domain as well as an outcome domain, two performance appraisal instruments will therefore have to be developed and validated.

In an effort to contribute to the eventual development and testing of a complex hypothesis on the psychological mechanism that determines medical practitioner performance, constituting a larger study, the following research initiating question will be addressed in this phase of research:

> What behaviours constitute medical practitioner performance success?

To answer this question the connotative meaning of the medical practitioner performance construct needs to be understood. The connotative meaning of a construct lies in the internal structure of the construct and the manner in which the construct is embedded in a larger nomological network. Research in the South African context, in conjunction with literature study, needs to be done to identify and determine the medical practitioner competencies and

outcome latent variables that constitute job performance of medical practitioners. It would also be necessary to identify which variables constitute to the factors that are important for job performance. The aim of this study is ultimately to develop an instrument for identifying and measuring the core competencies of medical practitioners in the public healthcare sector of South Africa.

The objectives of the study consequently are:

(a) to constitutively define the medical practitioner performance construct by developing a partial competency model that explicates the different latent behavioural and outcome variables comprising job performance of medical practitioners in South Africa and the manner in which these latent variables are structurally interrelated;
(b) to develop a South African behavioural performance measure that could eventually be used to obtain multi-rater assessments of the latent behavioural variables in the partial South African medical practitioner's competency model.

The eventual testing of the medical practitioner competency model demonstrating the complex psychological mechanism that determines medical practitioner performance warrants a quantitative research study. However, for this phase a qualitative research approach will be taken to identify the behaviours (competencies) constituting medical practitioner performance. The research methodology is presented in Chapter 3.

The study will build on international research done on medical practitioner competencies along with national research done on the subject.

1.3 Structural Overview

Chapter 2 provides a literature study in which the CanMEDS framework is presented. The extent to which the CanMEDS framework incorporates redundant competencies and/or excludes salient competencies is evaluated by using a variety of previous research studies to explicate the outcomes the medical practitioner should be held accountable for and to explicate the competencies that are instrumental in achieving these outcomes. From the literature a partial Medical Practitioner Competency Model is portrayed and structural paths are hypothesised between the different competency and outcome latent variables. Chapter 3 presents the research methodology used to collect qualitative data on the connotative and denotative meaning of the medical practitioner performance construct. Chapter 4 presents the findings of the qualitative data collection of the connotative and denotative meaning of the medical practitioner performance construct. Chapter 5 discuss the results by integrating the results of the literature study with the results of the qualitative data collection. Finally,

Chapter 6 summarises the findings and serves as a guide for future research in this field. In addition, the managerial implications and limitations of the study will be discussed.

CHAPTER 2
LITERATURE STUDY

2.1 Introduction

The introduction argued that medical practitioners play a critical role in the functioning and success of hospitals. The human resource role endeavours to contribute towards the effective and efficient functioning of the hospital by attempting to affect the performance of the employees in a manner that adds value to the operation of the hospital. Given the pivotal role medical practitioners play in the core business of hospitals, it is valuable to determine what latent variables constitute successful medical practitioner performance. Using tools such as a competency framework to understand the medical practitioner's performance construct is vital in the promotion of high quality medical education. Furthermore, the ideal would probably be that the competency framework will be consulted throughout the entire human resource function including during recruitment and selection, remuneration management, disciplinary matters, and mainly for performance management and training and development interventions.

The study of competencies in the health and medical field is not new. Several studies have been conducted both nationally and internationally to identify core competencies for nurses. In the United Kingdom (UK) the core career and competency framework for nursing was designed by the Royal College of Nursing (RCN) to help nurses effectively practice in a complex, ever-changing healthcare environment (Royal College of Nursing, 2012). In South Africa, Smuts (2011) did research on the talent management competency model in the nursing profession. This research on competency models in South Africa ought to extend beyond the nursing profession to the medical practitioners as well.

The current study attempts to fill the void existing in South African literature regarding the medical practitioner performance construct. As far as it is known, no validated South African medical practitioner competency structural model currently exists. After medical practitioners complete their internship years, their performance is not regulated by any performance management system. Internationally, countries are starting to adopt frameworks to promote high quality medical education. The pioneer is probably the CanMEDS Physician Competency Framework that was developed and adopted in 1996 in Canada. This competency framework describes the core knowledge, skills and abilities of medical practitioners (CanMEDS, 2014). Other international frameworks include the Scottish Doctor and UK's Tomorrow's Doctor and is based on the same principal as the CanMEDS framework, of dividing the medical practitioner's task into different roles and identifying the competencies of each of these roles. The CanMEDS framework has eventually gained

popularity and acceptance outside of Canada. Countries such as the Netherlands and Australia have all adopted the CanMEDS framework and adapted it to be suitable for their specific culture and environment. The Faculty of Medicine and Health Sciences (Stellenbosch University) has started to adopt the CanMEDS framework as part of their graduate attributes for undergraduate students in teaching and learning programmes (University Stellenbosch, 2013). In 2014 this document was adapted by the Undergraduate Education and Training Subcommittee of the Medical and Dental Professions Board in collaboration with training institutions and the South African Committee of Medical and Dental Deans and titled ‘Core competencies for undergraduate students in clinical associate, dentistry and medical teaching and learning programmes in South Africa’ (Medical and Dental Professional Board, 2014).

The introduction argued the need for a comprehensive medical practitioner competency model and the need to develop such a model in phases. The first phase involves the development and validation of a South African medical practitioner competency questionnaire. The development of such a questionnaire requires the conceptualisation of the to-be-measured construct. As aforementioned, the CanMEDS framework is a comprehensive framework that has been extensively researched (CanMEDS, 2014) and it has been adopted in a number of countries. To recreate a competency framework in South Africa from scratch seems imprudent. That does, however, not imply that the CanMEDS framework should be uncritically accepted and adopted in South Africa. The competencies that medical practitioners need to display to achieve the outcomes for which their profession exists are at least in part context-dependent (Rinfsted, Hansen, Davis, & Scherpbier, 2006).

The critical question is therefore firstly whether the CanMEDS framework incorporates all the relevant competencies that a medical practitioner should display to achieve the outcomes relevant to the current South African reality under which medical practitioners have to operate. A further critical question is whether some of the competencies in the CanMEDS framework are redundant for the South African context. To critically reflect on these two questions, future research should investigate the outcomes that medical practitioners in South Africa need to achieve have to be clarified as well as the context in which the outcomes need to be realised.

The literature study will subsequently review both national and international research related to medical practitioners in an attempt to identify the competencies that are regarded as critical to realise the outcomes that are considered relevant to South African medical practitioners and to successfully cope with the current South African reality under which medical practitioners have to operate. The content validity of the CanMEDS framework will

subsequently be critically compared to the competencies that emerged from the literature review.

Firstly, however, the concept of competency modelling will be discussed. The CanMEDS framework will then be presented along with similar literature reviewed.

2.2 The Concept of Competency Modelling

Human resource management professionals can contribute to the success of hospitals by providing medical practitioners and other hospital staff with information and tools in an attempt to maximize human capital (Rodriguez, Patel, Bright, Gregory, & Gowing, 2002). Competency models provide the foundation through which the discipline of Industrial Psychology can contribute to the job performance of medical practitioners. Competency modelling is the process of proposing and testing a competency model. The concept of a competency model is quite frequently interpreted rather narrowly as either a taxonomy of critical person characteristics that are required to achieve success in a job (McClelland, 1973; Schmieder & Frame, 2007;), or alternatively as a taxonomy of behaviours that are required to succeed in a job. Bartram (2005) holds a somewhat broader view in that he regards a competency model as a taxonomy in which critical person characteristics that are required to achieve success in a job are listed as well as the behaviours that a required to succeed in the job. In the current study, the SHL conceptualisation is taken one step further by integrating it with the concept of a structural model. In the current study therefore a competency model is interpreted as a four domain structural model in which a domain of structurally interrelated[1] person characteristics, a domain of structurally interrelated behaviours, a domain of structurally interrelated outcomes, and a domain of structurally interrelated situational characteristics are structurally interrelated. The competency model firstly serves to describe performance as a structurally interrelated set of outcomes and behaviours. The performance part of the competency model can therefore be used as a mechanism to unpack the job performance construct of medical practitioners. This part of the medical practitioner competency model will be used as the foundation for the development of a measurement instrument in an attempt to quantify medical practitioner job performance. The competency model secondly serves to explain variance in the latent dimensions that constitute performance in terms of critical personal and situational characteristics. This part of the medical practitioner competency model will be used to infer practical interventions aimed at enhancing medical practitioner performance.

[1] The domain of structurally interrelated person characteristics in effect constitutes a micro structural model.

David McClelland (1973) is regarded as the initiator of the competency movement through the publication of his paper “Testing for Competence Rather than Intelligence”. Research done by McClelland suggested that not only did measurements testing academic aptitude and knowledge predict high job performance, but that high performers can furthermore be identified through personal characteristics or competencies[2] (McClelland, 1973). As a result of the stressful work environment of a medical practitioner, often aggravated for the practitioners by the conditions prevailing in the public health care sector, South African hospitals not only need highly skilled and technically adept medical practitioners, but in addition these practitioners ought to display certain competencies in order to achieve job effectiveness. Research has indicated that focussing on competencies, may improve ultimate work success (Rodriguez et al., 2002). In developing a fruitful understanding of the behaviours and outcomes that constitute successful performance of medical practitioners, it would be sensible to make use of a competency framework as suggested by Bartram (2006), rather than merely referring to a basic set of competencies.

Bartram’s competency framework constitutes an articulated collection of relationships which is evidence-based and not just based on content analysis. It defines the nature of the components in the model and specifies how the different components relate to each other. CEB (Corporate Executive Board Company) defines a competency framework as “a single underlying construct framework that provides a rational, consistent, and practical basis for the purpose of understanding people’s behaviours at work and the likelihood of being able to succeed in certain roles” (Bartram, 2006, p. 1).

The competency framework as used by CEB forms the basis of the way that competency modelling are interpreted in the current study. In terms of this interpretation the model comprises three main elements, namely results, competencies and competency potential. A fourth element which the CEB competency framework takes into consideration is competency requirements. See Figure 2.1 for a schematic presentation of CEB’s Competency Framework.

[2] The different perspectives regarding competencies would be discussed more extensively further on in this chapter.

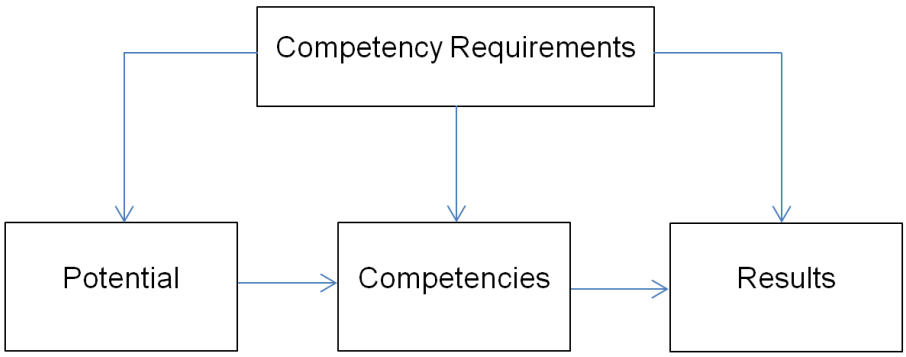

Figure 2.1 **Schematic Presentation of CEB's Competency Framework**

(Bartram, 2006)

An elaboration of these competency model elements will be discussed in the subsequent passages.

2.2.1 Results known as outcomes

Jobs exist to achieve certain results (outcomes) by accomplishing certain tasks. Results refer to the outcomes of behaviour and are defined as "the actual or intended outcomes of behaviour, which have been identified either explicitly or implicitly by the individual, his or her line manager or the organisation" (Bartram, 2006. p. 3). The incumbents of a job can be considered successful if the levels of performance that are achieved on the outcome variables exceed specific set standards. If a person does not achieve the results related to a specific job it may be an indication that he or she did not sufficiently perform the required tasks related to the job. The unsatisfactory performance can, however, also be due to situational conditions beyond the control of the incumbent. The main consequence of inadequate performance is that the organisation is directly or indirectly losing money. In certain jobs, inadequate job performance can have life threatening consequences for people, whether they be colleagues, customers, patients or the general public. The results of a medical practitioner not sufficiently performing in his or her job may result in patient death. In order to explicate the connotative meaning of the medical practitioner performance construct, one should investigate what the outcomes of the medical practitioner's job should be.

It is argued that specific behaviours (competencies) lead to the accomplishment of specific outcomes. Developing a fruitful competency model requires linkages between competencies and specific job outcomes that are necessary for the successful performance of a specific job function. If a competency does not link to an identified job outcome, the question should be asked whether a job outcome is lacking in the competency model, or whether the

competency is redundant since it does not contribute to the specific outcomes defined to be necessary for the specific job. It should, however be conceded that it is in principal possible that a competency is important not because it is instrumental in achieving one or more outcome but because it has intrinsic value in and by itself.

2.2.2 Competencies

The level of performance that is achieved on the outcomes that should be obtained from successfully performing in one's job depends at least in part on the level of competence with which the competencies related to the identified outcomes are displayed. Competence and competencies do not refer to the same construct, even though they are related to each other. It is important that a clear distinction between the two concepts is made to eliminate possible ambiguity.

Competence refers to a state of attainment and not a specific behaviour. Bartram (2006, p. 3) states "competence is about mastery in relation to specified goals or outcomes and it requires the ability to demonstrate mastery of specific job-relevant knowledge and skills". Professional competence can be defined as "the habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of the individual and community being served" (Epstein & Hundert, 2002, p. 228). "Competence represents a correspondence between an ideal set/repertoire of behaviours required by the job to optimally deliver the outputs for which the job exists and the actual behaviours delivered or competencies" (Theron, 2011, p. 23). In addition, Beaumont (as cited in Bartram, 2006, p. 3) also explained competence as the application of knowledge and skills, measured against certain criteria and standards by defining it as "the ability to apply knowledge, understanding and skills in performing to the standards required in employment". Statements about competence in the case of medical practitioners would refer to his/her degree of achievement in relation to a defined behavioural criterion or set standard of work performance. Competence illustrates how a person is performing now, and not what they might achieve in the future.

Competencies are related to the behaviours which underpin job performance. It refers to that which people need to do to achieve the outcomes they are held responsible for (Bartram, 2006). What makes individuals competent performers on the competencies and outcomes possible is their standing on the competency potential variables, as well as the situational factors influencing their standing on a competency. The behavioural standards set on the competencies are logically inferred from the standard set on the outcomes that the competencies are instrumental in achieving.

In understanding the concept of competencies one should be aware of the disagreement about the definition of competencies that exists in the literature. Two basic views regarding the meaning of competencies are apparent in the literature. Competencies are defined as either as 'attributes' or 'bundles of behaviour' related to successful job performance.

The first school of thought seem to be more prevalent in the United States of America (USA) - and essentially interprets competencies as the attributes which are related to success (Theron, 2011). As an example of this position, the United States Office of Personnel Management defines a competency as "a measurable pattern of knowledge, skill, abilities, behaviours, and other characteristics that an individual needs to perform work roles or occupational functions successfully" (Rodriguez, et al., 2002, p. 310). Klemp defined a job competency as "an underlying characteristic of a person which results in effective and or superior performance in a job… A job competency is an underlying characteristic of a person in that it may be a motive, trait, aspect of one's self-image or social role, or a body of knowledge which he or she uses" (Klemp cited in Theron, 2011, p. 8).

The second school of thought seems to be more prevalent in the United Kingdom and essentially interprets competencies as the behaviours related to success. As an example of this position, Bartram, (2006, p. 3), explains competencies as "sets of behaviours that are instrumental in the delivery of desired results or outcomes"; they are "behavioural actions which if done well, result in superior job performance". Spangenberg (as cited in Theron, 2011, p. 8) defines competencies as "sets of related behaviour, arising from underlying aspects of the individual which are determinants of job success… As they are focused on what people actually do, competency based approaches have the potential to offer a clear and integrated set of dimensions against which performance can be described and measured". Theron (2011, p. 7) defines competencies as "the abstract representations of bundles of related observable behaviour, driven by a nomological network of [unknown] constructs [competency potential], which, when exhibited on a job, would constitute high job performance and would [probably, depending on situational constraints/opportunities] lead to job success defined in terms of output/the objectives for which the job exists".

Generally it seems as if researchers in the USA tend to define competencies as personal attributes determining behaviour, whereas researchers in the UK tend to define competencies as the actual behaviours of people. For the purpose of this research the competency framework suggested by Bartram (2005) will be adopted and competencies will be defined in relation to the UK's perception of competencies as the abstract theme in a bundle of related behaviours which contribute to the achievement of the outcomes required

for successful job performance. Competency potential correlates more with attributes as explained subsequently.

2.2.3 Competency potential

Whereas competencies refer to “sets of desirable behaviours”, competency potential refers to “the individual attributes necessary for someone to produce the desired behaviours” (Bartram, 2006. p. 3). Competency potential therefore refers to the personal characteristics of an individual which ought to lead to the specific behaviours that constitute performance. These personal characteristics include attributes such as motives, personality traits, values and cognitive abilities (Bartram, 2006). A person with the competency potential viewed as optimal should produce the specific behaviours at a level of competence that will result in the accomplishment of the required outcomes at a level that represents successful performance.

2.2.4 Competency requirements

Competency requirements refer to the contextual and situational factors which influence, but also require individuals to behave in certain ways. It is defined as “the demands made upon individuals within a work setting to behave in certain ways and not to behave in others” (Bartram, 2006. p. 3). Competency requirements acknowledge the contextual and situational factors influencing the individuals’ effort and ability to produce the desired behaviours necessary to achieve the defined set of outcomes required for successful performance (Bartram, 2006).

Normally, competency requirements ought to derive from the organisational strategy (Bartram, 2006). The organisational strategy in essence is a tactic to achieve specific outcomes. To successfully implement a specific organisational strategy requires employees that are highly competent in specific competencies. This in turn holds implications for the competency potential latent variables on which employees need to excel. It can, however, also be argued that an array of latent variables that define the work circumstances under which employees have to achieve competence on specific competencies can exert a main effect on the level of competence that is actually achieved. Latent variables characterising the work context can, however, also moderate the impact of competency potential latent variables on the level of competence that employees achieve on the competencies. This would imply that specific work contexts require a specific competency potential profile in which specific person characteristics are required for success.

At the same time, environmental characteristics can also exert a main effect on the level of performance that is achieved on the outcome; latent variables and environmental

characteristics can moderate the impact of competencies on outcome latent variables. The latter would therefore imply that competence on specific competencies is required to achieve success on specific outcomes in specific contexts.

Generally, medical practitioners are faced with more challenges in public hospitals than those practicing in private hospitals. Some of these challenges may include situations where necessary infrastructure and medical supplies are not always readily available, or where practitioners have to prioritise under stressful circumstances who to help first in the most effective way, as there are not enough medical practitioners available for the number of patients in medical need.

Medical practitioners working in public hospitals, in contrast to those working in private hospitals, would probably need a different competency potential profile in order to be deemed competent on the competencies that are required to achieve the outcomes which constitute successful performance. Moreover it is conceivable that the standards that have to be set on specific competencies to achieve the desired level on specific outcome variables might be different from those operating in the more favourable conditions offered by private hospitals. Further studies ought to investigate whether there are such differences and to what extent those differences influence the outcomes, competencies and even the competency potential variables. Structural invariance analysis via multi-group structural equation modelling (Little, Bovaird, & Widaman, 2006) presents itself as a sophisticated technique well suited to shed light on these questions.

2.3 The Medical Practitioner Job Performance Construct

The objective of the current study is to constitutively define the medical practitioner performance construct and to develop and validate a South African behavioural performance measure that could be used to obtain multi-rater assessments of the latent behavioural dimensions comprising the construct.

2.3.1 Definition of a medical practitioner

In South Africa a medical practitioner is a practitioner of medicine who is registered under the Health Professions Act, Act No. 56 of 1974. Medical practitioners are professionals registered with the Health Professions Council of South Africa (HPCSA) as a medical practitioner under the Medical and Dental (and medical science) board. Medical practitioners diagnose patients and prescribe treatment for relief or cure of a specific physical disease, physical illness or physical impairment. For the purpose of this study the medical practitioners are or refers to as general practitioners and are defined as “doctors working in

primary care, acting as the first port of professional contact for most patients" (Black's medical dictionary, 2014).

2.3.2 Performance construct

Job performance is recognised as a significant construct in the field of industrial psychology (Viswesvaran & Ones, 2000). Job performance can be defined as "effectiveness of job related behaviour as measurement against a specific criterion of success, such as quantity or quality of output, or against multiple criterion dimensions" (Van den Bos, 2007, p. 508). Viswesvaran and Ones (2000, p. 216) explain that "job performance refers to scalable actions, behaviour and outcomes that employees engage in bring about that are linked with and contribute to organizational goals".

Medical practitioner performance is an abstract construct. A construct is an abstract representation that only exists in the mind of man (Kerlinger & Lee, 2000). A construct is an intellectual construction created by man via his abstract reasoning capacity to enable him to make intellectual sense of that which he observes around him and to communicate such an understanding to his fellow man (Kerlinger & Lee, 2000).

2.3.3 Performance outcome latent variables

Organisations are established to achieve specific goals and objectives. In order to accomplish the given goals and objectives and to give reason for the existence of the organisation, specific tasks needs to be accomplished. These tasks are aimed at achieving specific outcomes. These outcomes combine to serve the goals and objectives for which the organisation exists. These tasks are clustered together to create specific jobs. Ideally incumbents are selected with suitable knowledge, skills, abilities and person characteristics to execute the tasks of the given job. The extent to which they successfully carry out their job duties determines the success with which they achieve the outcomes that the tasks are meant to serve. The extent to which they successfully carry out their job duties and the extent to which they successfully achieve the outcomes for which their jobs exist are indicative of their job performance.

A hospital as an organisation is established to serve people with medical needs. Their fundamental goal and objective is to foster patient well-being. In order to achieve this goal, various hospital personnel perform specific tasks. At the core of these tasks is the job of the medical practitioner whose successful performance is vital for the sustainment of patient well-being.

In order to understand what the job performance of medical practitioners entails, an overview will be given of the outcomes a medical practitioner needs to achieve, the tasks and roles that they need to perform to achieve the outcomes, together with a description of the situational factors facilitating and inhibiting to their performance. Competency modelling will then be used to further unpack the job performance construct of medical practitioners in terms of the structural relations existing between outcome and behavioural latent variables.

2.3.4 Tasks of medical practitioners

In fruitfully formulating a comprehension of what performance of medical practitioners entails, one must holistically evaluate the tasks which are included in the job of a medical practitioner. It is difficult to obtain a comprehensive job description for a medical practitioner practicing in public hospitals. It appears that some hospitals in rural areas are generally struggling with various aspects of the human resource discipline (Couper, Sondzaba, & de Villiers, 2012).

Medical practitioners are directly responsible for the treatment and prevention of illness, disease, or injury, through the prescription or administration of treatment, therapy, medication and other specialised medical care. They are commonly known for accomplishing tasks such as prescribing medication to the sick, giving stitches to injured people, delivering babies, and operating on patients to remove, repair or improve functioning of diseased or injured body parts. Prior to these interventions, in an attempt to improve patient well-being, there is a specific course of action medical practitioners take to be able to select an optimal method of treatment.

In order for medical practitioners to prescribe an appropriate treatment for the disease, illness or injury at hand, an *accurate diagnosis* is necessary. For accurate diagnoses it is required of the medical practitioner to order, perform and interpret tests, also being able to analyse records, reports and examining information (O*Net Online, 2012). The medical practitioner has to collect, record and maintain information regarding the patients' condition by listening attentively to the patient and by asking relevant questions regarding the patient's symptoms and medical history. Subsequent to *information gathering*, *accurate diagnosis*, and prescribed treatment, the patient's condition and progress ought to be monitored and treatment should be adjusted accordingly. Patients ought to be advised concerning their activities, diet and hygiene to ensure optimal recovery. Medical practitioners encourage follow-up sessions where recovery is monitored and confirmed (O*Net Online, 2012). In certain cases it might be necessary for the medical practitioner to refer the patient to a medical specialist or other practitioners with more knowledge in the specific field. Therefore,

the practitioner ought to be aware and comfortable with his or her limits and have an available network of specialists to whom patients can be referred to (O*Net Online, 2012).

Tasks of medical practitioners that only indirectly relate to the well-being of the patient include coordination of work with other health care providers in the hospital system, which involves nurses, social workers, rehabilitation therapists, pharmacists and other medical specialists. Optimal recovery of patients is ensured if medical practitioners successfully direct and coordinate the activities of these health care providers operating in the system.

Health care is an essential service that people require, but which they do not necessarily wish for as it is only sought when people are sick or injured, and therefore emotionally involved (Berry & Bendapudi, 2007). Patients may experience feelings of reluctance and dread towards medical examinations, and this hesitation influences their willingness in participating in this service exchange and also influences their perception of the quality of the service (Berry & Bendapudi, 2007). Medical practitioners ought to be able to manage the emotions of patients as the patient's participatory role in the health care service is vital to achieve the desired outcomes - this cannot be obtained without detailed and honest descriptions of their experienced symptoms (Lanseng & Andreassen, 2007). For patients to participate in this service, a trusting relationship needs to exist between patient and medical practitioner. Medical practitioners need to be sensitive towards the patients' emotions, since the defined diagnosis or treatment may be extremely shocking and distressing to the patient. The results, procedures or prescribed treatment ought to be explained to patients in a comprehensible manner with the necessary sensitivity.

2.3.5 Roles of medical practitioners

In accomplishing these tasks towards successful job performance, the medical practitioner fulfils specific roles within the hospital. These roles have been identified by CanMEDS, an initiative with the objective of improving patient care in Canada.

The CanMEDS framework serves as a guide to the essential abilities necessary for medical practitioners to attain desired patient outcomes. According to this framework, the medical practitioner has to fulfil seven key roles (CanMEDS, 2014), and these roles are summarised in Table 2.1.

Table 2.1

Seven Key Roles of Medical Practitioners from which Competencies are Derived

Role	Definition
Medical Expert[3]	Healthcare practitioners integrate all of the graduate attribute roles, applying profession-specific knowledge, clinical skills and professional attitudes in their provision of patient/client-centred care.
Communicator	Medical practitioners effectively facilitate the carer-patient/client relationship and the dynamic changes that occur before, during and after the intervention.
Collaborator	Medical practitioners effectively work within a team to achieve optimal patient/client care.
Leader and Manager	Medical practitioners are integral participants in healthcare organisations, organising sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the healthcare system.
Health Advocate	Medical practitioners responsibly use their expertise and influence to advance the health and well-being of individuals, communities and populations.
Scholar	Medical practitioners demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of knowledge.
Professional	Medical practitioners are committed to ensure the health and well-being of individuals and communities through ethical practice, profession-led self-regulation and personal standards of behaviour.

(Frank & Snell, 2014, p.9-27)

The Medical and Dental Professions Board (MDB) of the Health Professions Council of South Africa (HPCSA) is the custodian of undergraduate training of clinical associates, dentists and medical doctors in South Africa (van Heerden, 2013). As mentioned in section 2.1 the CanMEDS Physician Competency Framework was adopted for undergraduate students in clinical associate, dentistry and medical teaching and learning programmes in South Africa. Similarly to the Canadian model, the South African model is presented as follows in Figure 2.2 (Medical and Dental Professional Board, 2014).

[3] Medical expert is the central physician role in the CanMEDS framework and is termed in South Africa as a medical practitioner.

Figure 2.2 **Medical Practitioner Roles**

(Medical and Dental Professional Board, 2014, p. 1)

The roles identified for the medical practitioner in South Africa is the same as in the Canadian model (Medical and Dental Professional Board, 2014).

2.3.6 Situational Factors Influencing Job Performance of Medical Practitioners Practicing in South Africa

It can be argued that situational circumstances can significantly influence the behaviours and competency potential necessary for medical practitioners to achieve the outcomes required of the job. Certain circumstances may aggravate the already stressful conditions in hospitals as a result of pressure on medical practitioners to “save lives”. Medical practitioners practising in hospitals which are understaffed, lacking necessary medical equipment and supplies, and with the risk of danger, might need to engage in different behaviours and utilize different knowledge and skills, compared to those practicing in hospitals where there are enough staff and medical equipment and supplies available.

As mentioned in Chapter One, the public health sector has to provide health care to approximately 80% of the country’s population, causing public hospitals to be overcrowded.

The main complaint from medical practitioners working in public hospitals is that there is not enough staff to attend to the number of patients. The shortage of medical practitioners working in the public hospitals leads to employed practitioners working an exceeding number of hours. These excessive working hours lead to medical practitioners suffering from fatigue and make them prone to burnout.

Another disturbing feature characterising conditions existing in most of these public hospitals is the poor conditions of the medical equipment, or the complete lack thereof (South African Government Online, 2013). The lack of the necessary medical equipment results in higher medical practitioner exertion and poses a risk for patient health and wellness.

Medical practitioners are not solely responsible for patient wellness as patient interaction with other medical staff, like nurses, is also contributing to patient recovery. The shortage of nurses in South Africa (Joubert, 2009) increases the work stress of medical practitioners since medical practitioners have to compensate for the lack of nurses by checking up on work that had to be done and also doing work that in fact is not their responsibility.

Many of these contextual and situational factors cause medical practitioners to feel exhausted, frustrated, and less motivated. As a result, many South African medical practitioners decide to work in the private healthcare sector or immigrate to work abroad. Subsequent research ought to further investigate the affect diverse situational factors has on medical practitioner's job performance.

2.4 Medical Practitioner Performance Outcomes

The latent outcome variables form the theoretical foundation of the competency model. If the identity of the outcome latent variables that need to be achieved has not been clarified, it is logically impossible to derive a stance on the competencies that constitute performance. It is not possible to establish what medical practitioners need to do if the nature of the results that need to be achieved are not clear. These results were defined earlier as "actual or intended outcomes of behaviour, which have been identified either explicitly or implicitly by the individual, his or her line manager or the organisation" (Bartram, 2006. p. 3).

In reflecting on the question as to which outcomes a medical practitioner needs to achieve, it must be decided whether a medical practitioner should only be held accountable for the (isolated) illness or whether they should treat the total person. Is the practitioner therefore successful if they cure the illness irrespective of how the person feels, or are they only successful if the illness is cured and the patient is satisfied?

2.4.1 Medical practitioner outcome latent variables

In order to determine behavioural competencies that constitute being a good medical practitioner, one ought to firstly identify what the job outcomes of medical practitioners are.

Gruber and Frugone (2011) conducted research in which they attempted to uncover the desired qualities and behaviours (competencies) patients expect from medical practitioners. The data was classified into attributes, consequences and values to formulate a so-called value map in order to demonstrate the causal linkages between the latent variables. Medical practitioner attributes represent means to achieve important desired consequences, which in turn are means to achieve an ultimate value. This value map is schematically presented in Figure 2.4.

The identified attributes, consequences and values can also be categorised into the different competency model latent variables as previously described in this study.

The defined attributes in the study of Gruber and Frugone (2011) correspond to the definition of competencies in the current study. Respondents participating in the study of Gruber and Frugone elaborated on these attributes by explaining which consequences ought to spring from the identified competencies and how these consequences further connect to different values. The competencies will be explored and defined in section 2.6. What Gruber and Frugone (2011) refer to as consequences correspond to what is referred to as performance outcomes in the current study. The sample consisted of two subgroups, namely patients from normal encounters and patients from recovery encounters. The Critical Incident Technique (CIT) was used as a warm-up technique before using the laddering technique to obtain the qualitative data. The consequences mentioned in the Gruber and Frugone (2011) are given in Table 2.2.

Table 2.2

Overview of Consequences Identified by Gruber and Frugone (2011)

Name of consequence	Number of times mentioned in ladders in normal encounters	Number of times mentioned in ladders in recovery encounters	Description
Feel comfortable	90	80	Patients want to feel comfortable, at ease, worry free, relieved and assured that they are in good hands
Effective treatment	67	75	GP can determine the best and most effective treatment for patients in order to solve their problems

Table 2.2 (continued)

Overview of Consequences Identified by Gruber and Frugone (2011)

Name of consequence	Number of times mentioned in ladders in normal encounters	Number of times mentioned in ladders in recovery encounters	Description
Trust	67	57	Patients feel that they can rely on and have confidence in the physician, his abilities, intentions, and diagnosis
Feel cared for	33	34	Patients want to feel that there is someone they can lean on and feel taken care of
Diagnosed correctly	25	33	GP can determine the correct diagnosis
Open up	74	25	Patients want to feel they can tell everything to the GP and express themselves freely
Gain knowledge	21	23	Patients want to learn and understand more about illnesses and their condition; and get health advice
Treated as individual	18	21	Patients want to feel like individuals, at the same level as physicians, they want to be treated fairly and not like another statistic
Feel taken seriously	19	19	Patients want to feel they are taken seriously and listened to
Not waste time	14	17	Patients want to save time in the processes of seeing the GP and getting cured
Feel motivated	5	13	By getting information, comfort and support, the patient will feel more confident, hopeful, more energetic, be willing to cooperate more optimistically and follow the treatment
Take problem seriously	0	13	Patients want to have the impression that their problem is acknowledged and taken seriously
Move on	4	12	Patients want to take care of other things
Negotiated process	2	9	Patients want to have an active role in the process of the treatment decision
Control	4	8	Patients want to be in control of what they are doing, decide or make decisions by themselves and plan their lives

Table 2.2 (continued)

Overview of Consequences Identified by Gruber and Frugone (2011)

Name of consequence	Number of times mentioned in ladders in normal encounters	Number of times mentioned in ladders in recovery encounters	Description
Feel understood	39	8	Patients want to feel that the doctor understands them and their needs; and feel accepted
Prevent	3	8	Patients want to prevent illnesses and stay healthy
Improve system	0	7	Patients want to feel that their complaint and posterior solution will contribute to the improvement of the system

(Gruber & Frugone, 2011, p. 502)

These consequences desired by the patients can be viewed as outcome latent variables that the medical practitioner should achieve in the partial competency model for medical practitioners that the current study aspires to develop.

The model designed by Gruber and Frugone (2011) explained that specific values are implied by the previously listed consequences or outcomes. According to the participants in the Gruber and Frugone study it is important that medical practitioners ought to live these values in the manner in which they practice medicine. See Table 2.3 for an overview of the values.

Table 2.3

Overview of Values Identified by Gruber and Frugone (2011)

Name of Value	Number of times mentioned in ladders in normal encounters	Number of times mentioned in ladders in recovery encounters	Description
Health	91	77	Patients want to get healthy and be cured
Well-being	62	65	Patients feel good, better and want to live a long, happy life
Accomplishment	50	47	Patients want to carry on and achieve their goals (study, work, achieve success etc.)
Safety	61	44	Patients feel safe and secure

Table 2.3 (continued)

Overview of Values Identified by Gruber and Frugone (2011)

Name of Value	Number of times mentioned in ladders in normal encounters	Number of times mentioned in ladders in recovery encounters	Description
Self-esteem	28	33	Patients feel better and happy about themselves, unique, recognized, back to normal self, and morally motivated
Hedonism	11	25	Patients want to enjoy life
Belongingness	17	19	Patients feel accepted by others, don't feel alone, socialize, and go back and care about family
Self-realization	39	18	Patients want to make the best out of their lives and feel self-realized
Altruism	7	10	Patients care about the well-being and time of others; and want to contribute to society with (1) their efforts (2) help, and (3) improvement of the system
Satisfaction	8	3	Patients feel satisfied and that they got what they expected

(Gruber & Frugone, 2011, p. 503)

These values identified by Gruber and Frugone (2011) also imply outcomes that may form a part of the competency model as explained earlier in this paper. The values indicate what outcomes are important to patients through their encounters with medical practitioners. As patients are the receivers of this medical service, the medical practitioner should value what the patient values in order to be a good medical practitioner and strive toward these values. To achieve these values they ought to engage in certain behaviours (competencies) that will be described in section 2.5.

Duncan, Cribb, and Stephenson (2003) interviewed medical students and medical practitioner tutors in an attempt to determine what they perceived a 'good practitioner' to be. The three key themes in the findings of their empirical study included: the belief that practicing medicine is a 'lived experience' and the potential of this to contribute to the development of 'good doctors'; the importance of relationships with patients in the definition of who is a 'good doctor'; and finally the fundamental need to integrate technical medical knowledge with humanistic skills and intuitive sympathy in 'good medical lives'. Some outcomes medical practitioners ought to achieve to be 'good practitioners' were identified to be the following:

- Good quality relationships with patients
- Physical and psychological well-being of the patient
- Efficiency (as a duty of fairness to all patients and not for economic reasons)

More than the technical qualities are required to be a 'good medical practitioner'. Virtue morality plays an important role in being a 'good medical practitioner'. Duncan et al. (2003) noted that when medical practitioners have good quality relationships with their patients that the patients tend to trust the practitioner more and consequently tend to provide the practitioner with more information about themselves, thereby helping the medical practitioner to address the patient's needs more accurately. The medical practitioner's duty should reach further than seeking the physical well-being of the patient. While interacting with the patient they should also seek the psychological well-being of the patient. In order to focus on the psychological well-being of the patient the medical practitioner should attend to the patient's needs and truly listen to what it is that the patient needs. It was further mentioned that just as with other professions, medical practitioners ought to be efficient. However, it was argued that efficiency should be motivated not by economic reasons as in other organisations, but rather by a duty of fairness to other patients who are waiting upon medical care.

2.4.2 Performance outcomes of medical practitioners working in South Africa

Patients seek the service of a medical practitioner if they have a physical or health problem that needs medical care. The medical practitioner has the fundamental core responsibility to confirm that the patient has a physical or health problem that needs medical care, to accurately diagnose the problem by determining what causes the problematic symptoms and then prescribe an appropriate and *proper treatment* that should bring relief to the patient's physical or health problem (provided that the patient adheres to the prescribed treatment regime). When logically considering the various tasks and roles medical practitioners are responsible for together with findings in the literature, it is apparent that *accurate diagnosis* (Gruber & Frugone, 2011) and *proper treatment* (Finocchio, Bailiff, Grant, & O'Neil, 1995; Gruber & Frugone, 2011) are two of the main outcomes that a medical practitioner, who performs his or her job successfully, should achieve.

A medical practitioner *accurately diagnoses* a patient when the primary sickness or disease causing the symptoms is identified. An *accurate diagnosis* consequently creates a basis for the prescription of the right medication and treatment.

The willingness of the patient to share information can be hypothesised to be determined by the degree to which the patient *trusts* the medical practitioner. If the patient feels that the medical practitioner can be trusted, they will share the required information more

comprehensively, more accurately and more comfortably with the medical practitioner (Duncan et al., 2003). It is therefore imperative that the medical practitioner succeeds in establishing *trust in the practitioner*. The patient needs to trust the consulted practitioner so that the medical practitioner may gain all the relevant information to ensure *accurate diagnosis* and treatment of the patient. Gruber and Frugone (2011) identified *trust, open up* and *feel comfortable* as three separate consequences (outcomes). It is suggested that for the purpose of the current study, these three outcomes should be combined into a single (higher-order) outcome, namely *trust in the practitioner*. The rationale behind this is to initially simplify the outcome structural model. It is however acknowledged that specific structural relations should be hypothesised between the aforementioned three components of *trust in the practitioner*. If a patient trusts the medical practitioner, he or she will feel comfortable in sharing information and feel assured that they are in good hands. In addition, if there exists trust in the medical practitioner, the patient will feel free to open up to the medical practitioner regarding the symptoms related to his or her condition and his previous medical history.

If a patient trusts the medical practitioner and provides the medical practitioner with the relevant information which assists him or her to *accurately diagnose* the patient, the medical practitioner has a better chance in prescribing *proper treatment* to the patient. *Proper treatment* as an outcome of medical practitioner performance entails the accurate prescription of medicine along with any additional treatment recommendations necessary for the healing process to take place.

The prescribed treatment can, however, only have the intended effect if the patient *adheres to the prescribed treatment* regime. The question is: what the requisite condition the medical practitioner needs to create to ensure *adherence to the prescribed treatment*? *Trust in the practitioner* is probably one important prerequisite.

A sense of understanding of the medical problem, the etiology of the problem and the manner in which the treatment will relieve the problem is probably a second important prerequisite. In terms of the expectancy theory (Robbins & Judge, 2011) it can be argued that the patient's *motivation* to *adhere to the prescribed* treatment regime depends on the expectancy that adherence to the prescribed treatment will result in the medical problem being solved (P[E→P]) is high. The expectancy should be positively influenced by *trust in the practitioner* and clear *sense of understanding.*

As the reason for patients consulting medical practitioners is sickness or injury, a very important outcome is *patient well-being* (Duncan et al., 2003; Gruber & Frugone, 2011). It is proposed that *patient well-being* does not include only physical well-being such as health

and recovery from disease or injury, but also psychological well-being, such as feeling good and motivated to live a long life. It seems reasonable to argue that *patient well-being* firstly will depend on *proper treatment* and the *adherence to the prescribed treatment.*

As patients are unique humans and not machines or merely an illustration or case study of a specific disease, it is important that they are considered as people who have feelings. In addressing this matter, an outcome that needs to be achieved is that the patient should feel that he/she was *treated as an individual*. It is reasoned that this outcome would contain consequences such as *feeling cared for*, *feeling themselves* and that their problems are taken seriously, that they were involved in a negotiated process, and feeling understood, identified by Gruber and Frugone (2011), as they contribute to the patient feeling that he or she is *treated as an individual*. It is hypothesised that feeling *treated as an individual* is causally related to *patient well-being*.

Medical practitioners provide a health care service to customers (patients). Similar to regular services, an important outcome of health care services ought to be customer satisfaction, or as in this instance, *patient satisfaction*. This outcome relates to whether the patient feels that he or she received a good service as a function of being *treated as an individual* and *patient well-being*. As mentioned by Duncan et al. (2003), medical practitioners ought to be effective in serving their patients in order for them to be fair to other patients seeking their medical care. *Patient satisfaction* can be hypothesised to be affected by *patient well-being.*

In the foregoing argument, specific structural relations were hypothesised between the outcome latent variables that a medical practitioner needs to be held accountable for. These structural relations are summarised in the outcome structural model shown in Figure 2.3.

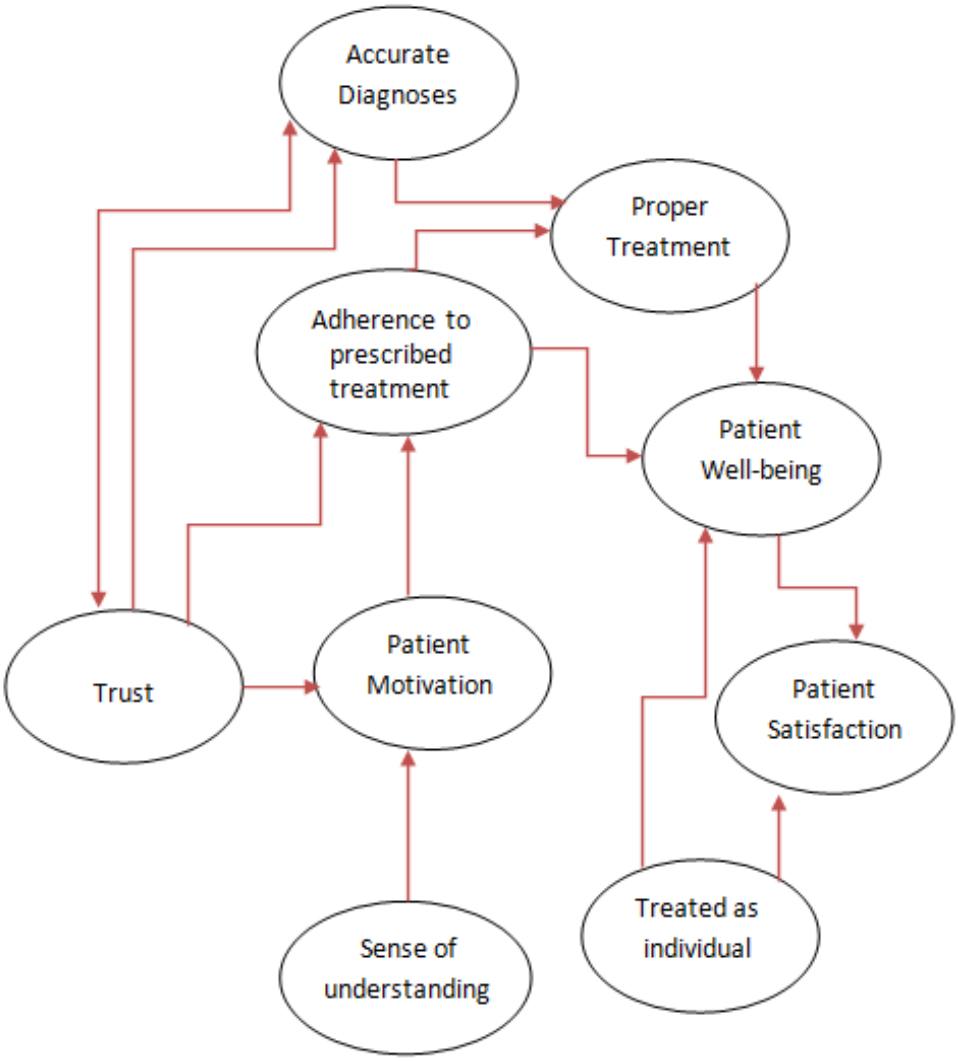

Figure 2.3 **Medical Practitioner Outcome Structural Model**

Table 2.4 gives the formal definitions of the medical practitioners' outcome latent variables displayed in the medical practitioner outcome structural model shown in Figure 2.3.

Table 2.4

Definitions of the Medical Practitioner Outcomes

Outcome	Definition
Trust in the practitioner	The extent to which the patient feels they can rely on and have confidence in the medical practitioner, his or her abilities, diagnosis and intentions (Gruber & Frugone, 2011).
Accurate diagnosis	The extent to which the medical practitioner accurately identifies a sickness or injury by evaluating the signs and symptoms, along with the patient's medical history.

Table 2.4 (continued)

Definitions of the Medical Practitioner Outcomes

Outcome	Definition
Proper Treatment	The extent to which the medical practitioner prescribes the best and most effective remedy for the diagnosed sickness or injury, by taking the person's medical history into account.
Adherence to prescribed treatment	The extent to which the patient accurately adheres to the prescribed medicine and prescribed treatment instructions.
Patient motivation	The degree to which the patient believes the treatment will lead to success and is motivated to complete it.
Sense of understanding	The degree to which the patient understands the medical problem, the etiology of the problem and the manner in which the treatment will relieve the problem.
Patient well-being	The extent to which the patient experiences a good physical, mental and social condition.
Treated as individual	The extent to which the patient feels that he or she is treated fairly and as a human being, and not merely as a number, by being listened to, taken seriously, and being accepted by the medical practitioner who gives the patient the opportunity to have an active role in decision-making regarding their treatment.
Patient satisfaction	The extent to which the patient feels gratified by the medical service he or she received.

The next section is a discussion of the competencies required to achieve the outcomes for effective medical practitioner performance.

2.5 Competencies Required to Achieve the Necessary Outcomes Constituting Medical Practitioner Performance

Medical practitioners have to display bundles of specific behaviours, or competencies, to achieve the specified outcomes that a medical practitioner is held accountable for. It may be that the level of competence required on specific competencies from medical practitioners in public hospitals might differ from the level of competence required from medical practitioners in private hospitals, as a result of the situational and contextual differences existing between these types of hospitals in South Africa. Further research will have to examine to what extent situational and contextual differences affect the structural relationship between medical practitioner competencies and outcome latent variables. A context main effect will imply that the regression of one or more of the outcome latent variables on one or more of the

competencies differs in terms of intercept. A context competency interaction effect will imply that the regression of one or more of the outcome latent variables on one or more of the competencies differs in terms of slope.

In this section, research done on competencies for medical practitioners will be discussed and certain competencies will be identified to include the competency model for medical practitioners (see Figure 2.6).

The following research studies were considered.

2.5.1 The CanMEDS Physician Competency Framework

Competency-based medical education (CBME) is a world-wide movement influencing the future of medical education. In an attempt to ensure that the medical practitioners of Canada are competent in all necessary domains required to practice, the Royal College initiated the Competence By Design (CBD) program that focuses on the learning continuum from the start of residency to retirement. It is based on a competency model of education and assessment designed to address societal health needs and promote patient care. The program aims to support the development, implementation, and evaluation of competency-based, learner-focused education to meet the diverse learning needs of residents and the evolving health care needs of Canadians in a response to the world-wide movement towards competency-based medical education. As part of the Competence By Design (CBD) program, the Royal College has launched a project to update the existing CanMEDS Framework entitled CanMEDS 2015 (Royal College, 2014).

The CanMEDS initiative began at the beginning of the 1990s as a desire to reform medical education to ensure that physicians were prepared to succeed in a new health care environment. Since its adoption in Canada in 1996, CanMEDS has become the most widely accepted and applied medical practitioner competency framework in the world (Frank & Snell, 2014). The CanMEDS project has been a collaborative endeavour of hundreds of Royal College Fellows, family physicians, educators, and other expert volunteers for nearly a decade and a half (Frank, 2005).The CanMEDS framework was developed through an evidence-informed, collaborative process involving literature reviews, stakeholder surveys, focus groups, interviews, consultations, consensus-building exercises, debate, and work on educational design (Frank & Snell, 2014).

The CanMEDS is an initiative to improve patient care by enhancing medical practitioner training. The CanMEDS framework is competency-based and describes the abilities physicians – or medical practitioners – required to effectively meet the needs of the people

they serve. Frank (2005, p. 2) defines competencies, in contrast to the definition utilised in the current study, as “important observable knowledge, skills and attitudes” leaning towards the USA’s perception of competencies.

The CanMEDS framework serves as a guide to the essential abilities necessary for medical practitioners to attain desired patient outcomes. This educational framework identifies and describes the competencies needed for medical education and practice. The CanMEDS framework comprises core competencies that are organised thematically around seven medical practitioner “meta – competencies” or medical practitioner roles. Each of the competencies are further fragmented into the enabling competencies, describing what knowledge, skills and attitudes are important during training and practice. The seven roles include Healthcare Practitioner, Communicator, Collaborator, Leader and Manager, Health Advocate, Scholar and Professional.

The CanMEDS framework identifies the different roles medical practitioners ought to fulfil and describe these roles through identified competencies. These roles and competencies are presented in Table 2.5.

Table 2.5

CanMEDS Roles and Competencies

Role	Competencies
Medical expert	1. Practise medicine within their defined clinical scope of practice and expertise 2. Perform a patient-centred clinical assessment and establish management plans 3. Plan and perform interventions for the purpose of assessment and/or management 4. Establish plans for timely follow-up and appropriate consultation. 5. Actively participate, as an individual and as a member of a team, in the continuous improvement of health care quality and patient safety
Communicator	1. Establish professional therapeutic relationships with patients and their families 2. Elicit and synthesize accurate and relevant information along with the perspectives of patients and their families 3. Engage patients and others in developing plans that reflect the patient’s health care needs and goals 4. Document and share written and electronic information about the medical encounter to optimize clinical decision-making, patient safety, confidentiality, and privacy
Collaborator	1. Work effectively with other physicians and other health care professionals 2. Work with inter- and intraprofessional colleagues to prevent misunderstandings, manage differences, and resolve conflict 3. Effectively and safely hand over care to an appropriate health care professional

Table 2.5 (continued)

CanMEDS Roles and Competencies

Role	Competencies
Leader	1. Contribute to the improvement of health care delivery in health care teams, organizations, and systems 2. Engage in the stewardship of health care resources 3. Demonstrate leadership in professional practice 4. Manage their practice and career
Health advocate	1. Respond to individual patients' complex health needs by advocating with them in the clinical or extra-clinical environment 2. Respond to the needs of a community or population they serve by advocating with them for system-level change
Scholar	1. Engage in the continuous improvement and enhancement of their professional activities through ongoing learning 2. Facilitate the learning of students, residents, other health care professionals, the public, and other stakeholders 3. Integrate best available evidence, contextualized to specific situations, and integrate it into real-time decision-making 4. Critically evaluate the integrity, reliability, and applicability of health-related research and literature 5. Contribute to the dissemination and/or creation of knowledge and practices applicable to health
Professional	1. Demonstrate a commitment to patients by applying best practices and adhering to high ethical standards 2. Demonstrate a commitment to society by recognizing and responding to the social contract in health care 3. Demonstrate a commitment to the profession by adhering to standards and participating in physician-led regulation 4. Demonstrate a commitment to physician health and well-being to foster optimal patient care

(Frank & Snell, 2014, p.9-27)

Each of the competencies are further fragmented into more specific enabling competencies. The article of Frank and Snell (2014) includes the full detail on the description of these competencies and will not be repeated in this document.

This CanMEDS framework was adjusted for the South African context, and the defined competencies is presented in Table 2.6.

Table 2.6

CanMEDS Roles and Competencies (South Africa)

Role	Competencies
Medical expert	1. Function effectively as entry-level healthcare practitioners, integrating all graduate attribute roles to provide optimal, ethical, comprehensive and patient/client-centred care in a plurality of health and social contexts. 2. Acquire and maintain knowledge, skills, attitudes and character appropriate to their practice. 3. Perform comprehensive assessments of patients/clients. 4. Use preventive, promotive, therapeutic and rehabilitative interventions effectively. 5. Demonstrate efficient and appropriate use of procedural skills, both diagnostic and therapeutic. 6. Seek appropriate consultation from other healthcare professionals, recognising the limits of their own and others' expertise.
Communicator	1. Develop rapport, trust and ethical therapeutic relationships with patients/clients, families and communities from different cultural backgrounds. 2. Accurately elicit and synthesise relevant information and perspectives of patients/clients and families, communities, colleagues and other professionals. 3. Convey relevant information and explanations accurately and effectively to patients/clients, families, communities, colleagues and other professionals as well as statutory and professional bodies. 4. Develop a common understanding of issues, problems and plans with patients/clients, families, communities, colleagues and other professionals, to develop a shared plan of care/action. 5. Convey effective and accurate oral and written information about a clinical encounter.
Collaborator	1. Participate effectively and appropriately in multicultural, interprofessional and transprofessional teams, as well as teams in other contexts (the community included). 2. Work effectively with other healthcare professionals to promote positive relationships and prevent, negotiate and resolve interpersonal conflict.
Leader and manager	1. Participate in activities that contribute to the effectiveness of the healthcare organisations and systems in which they work. 2. Manage their practice and career effectively. 3. Utilise finite healthcare resources appropriately. 4. Serve in administration and leadership roles, as appropriate. 5. Provide effective healthcare to geographically defined communities.
Health advocate	1. Respond to individual patient/client health needs and related issues as part of holistic care. 2. Respond to the health needs of the communities that they serve.

Table 2.6 (Continued)

CanMEDS Roles and Competencies (South Africa)

Role	Competencies
Scholar	1. Maintain and enhance professional competence through ongoing learning, both as healthcare professionals and as responsible citizens, locally and globally. 2. Ask questions about practice, locate relevant evidence, critically evaluate and interpret information and sources, and consider the application of the information. 3. Facilitate the learning of patients/clients, families, students, other healthcare professionals, the public, staff and others, as appropriate.
Professional	1. Demonstrate commitment and accountability to their patients/clients, other healthcare professions and society through ethical practice. 2. Demonstrate a commitment to their patients/clients, healthcare professionals and society through participation in profession-led self-regulation. 3. Demonstrate a commitment to own health and sustainable practice.

(Medical and Dental Professional Board, 2014, pp. 2 - 14)

The competencies as specified by the CanMEDS framework seem to be behavioural anchors constituting a specific behavioural latent performance dimension, rather than being different individual competencies. These behavioural denotations ought to be analysed and linked to specific competencies.

2.5.2 The study of Finocchio, Bailiff, Grant, and O'Neil (1995)

Finocchio et al. (1995) conducted a telephone survey in America, in which the importance of undergraduate training in 14 competencies was assessed. Participants included 300 medical practitioners - consisting of general practitioners, surgery specialists, and specialists in other areas. The survey attempted to determine which competencies the practicing medical practitioners perceived to be the most important. Table 2.7 presents the competencies that were assessed and are presented in order from most to least important, as rated by participants.

Table 2.7

Rating of The Importance of Undergraduate Training in Selected Competencies

Competency	Very Important	Somewhat important	Slightly important/ not important
Diagnosis and treatment	98	2	0
Communicate effectively	92	7	1
Problem-solving	89	9	2
Lifelong learning	83	11	6
Counsel on ethical issues	77	19	4
Promote wellness and prevention	73	22	5
Include patients and families as partners	70	25	5
Manage information	62	32	6
Use technology appropriately	60	30	9
Work on team of health professionals	57	36	7
Consider cost implications	53	38	9
Expand access to care	50	36	14
Understand diverse cultures	48	41	11
Accommodate increased scrutiny	44	41	14
Understand community role in health	40	46	14
Work in managed care settings	14	38	48

(Finocchio et al., 1995, p. 1026)

Results showed that 50% or more of the participants rated the first 12 competencies as very important. *Diagnosis and treatment, problem-solving, managing technical information, and working with teams* are traditional medical practitioner competencies and in this survey also rated as very important by most of the medical practitioners (Finocchio et al., 1995).

In developing the competency model as described earlier in this Chapter, it is suggested that *diagnosis and treatment* should be considered an outcome, rather than a competency for the purposes of this study as it describes the result of the performance of their job, rather than the specific behaviour required to be a successful medical practitioner.

2.5.3 The study of Gruber and Frugone (2011)

Gruber and Frugone (2011) conducted a research study in which they assessed the desired qualities and behaviours of medical practitioners during normal and recovery medical encounters. The following attributes or behaviours, considered competencies for this study, were identified and illustrated in Table 2.8.

Table 2.8

Overview of Attributes Identified by Gruber and Frugone (2011)

Name of attributes	Number of times mentioned in ladders in normal encounters	Number of times mentioned in ladders in recovery encounters	Description
Empathy	28	24	GP should show that he is interested in the patient, show she/he cares about the patient and is understanding of the feelings and background of the patient. Patients perceive this quality from the GP when she/he asks for the history and background of patients' ailments; tries to relate to them; through body language and supportive remarks; shows interest and sympathy as opposed to being bored and dismissive; and acts in an accommodating and compassionate manner
Professionalism	16	19	GP should behave professionally. This means she/he should do checks, be conscious of time, be respectful, check and compare history, follow code of conducts and ethics
Responsibility	0	19	GP should be responsive, acknowledge and take responsibility for actions, apologise and justify behaviour
Competence	26	18	The GP should have knowledge, skill and experience. In order to show competence, the GP should talk about his experience, the GP should talk about their background, be well spoken of, have confidence in his voice, be fast an accurate in his response, listen carefully and make notes and be prudent
Informative	24	16	GP should give feedback, health advice, be willing to answer questions, inform and discuss what is going on and the matter of illness of the patients

Table 2.8 (Continued)

Overview of Attributes

Name of attributes	Number of times mentioned in ladders in normal encounters	Number of times mentioned in ladders in recovery encounters	Description
Communication skills	8	14	GP should have good communication skills, be able to interact, be a good talker, have people skills, be easy to talk to and have good eye contact and good body language
Accessible	7	13	Patients want their GP to be easy to reach, available, organised, easy to contact and specially a better waiting period (quickness)
Friendliness	31	13	GP should be friendly. Respondents of this research perceive GP's friendliness if she/he is warm, courteous, friendly and kind; breaks ice to start a conversation; smiles; is open minded; welcoming; friendly eyes; has nice personality; is polite
Active listener	17	11	Patients want their GP to listen actively to them
Politeness	1	7	GP should be polite

(Gruber & Frugone, 2011, p. 501)

Empathy, professionalism, competence, friendliness, and *communication skills* were mentioned the most by patients (Gruber & Frugone, 2011). *Informative* and *active listeners* are perceived as being two components of *communication skills*.

Gruber and Frugone (2011) postulated structural relations amongs the different latent variables as mentiond in this section as well as in section 2.4.2. The structural model was, however, not tested via statistical analyses. The structural model for the recovery subgroup is shown in Figure 2.4 and the structural model for the normal subgroup is shown in Figure 2.5.

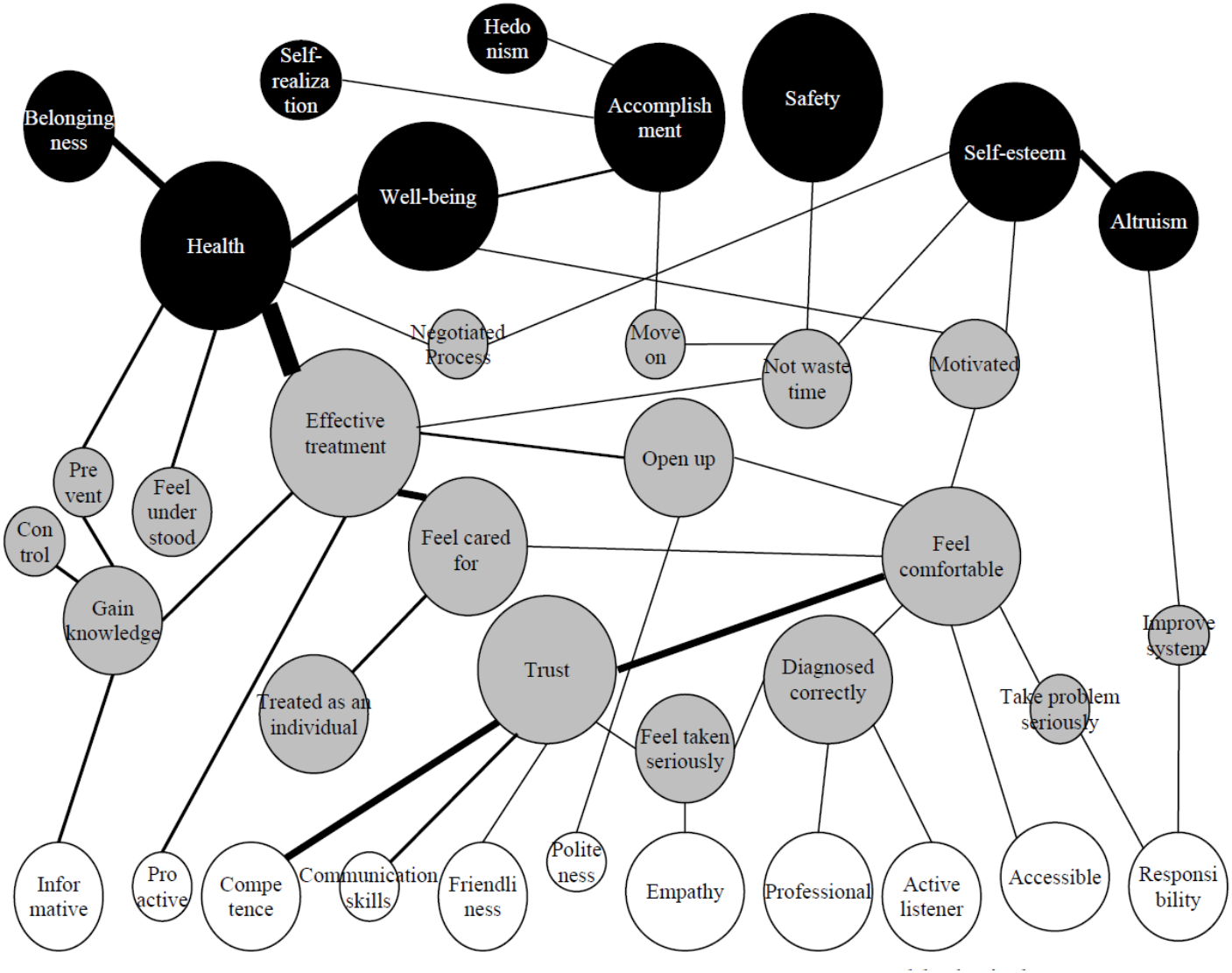

Figure 2.4 **Value Hierarchical Map (recovery subgroup)**

(Gruber & Frugone, 2011, p. 504)

Note: White circles represent attributes; grey circles stand for consequences; black circles represent values.

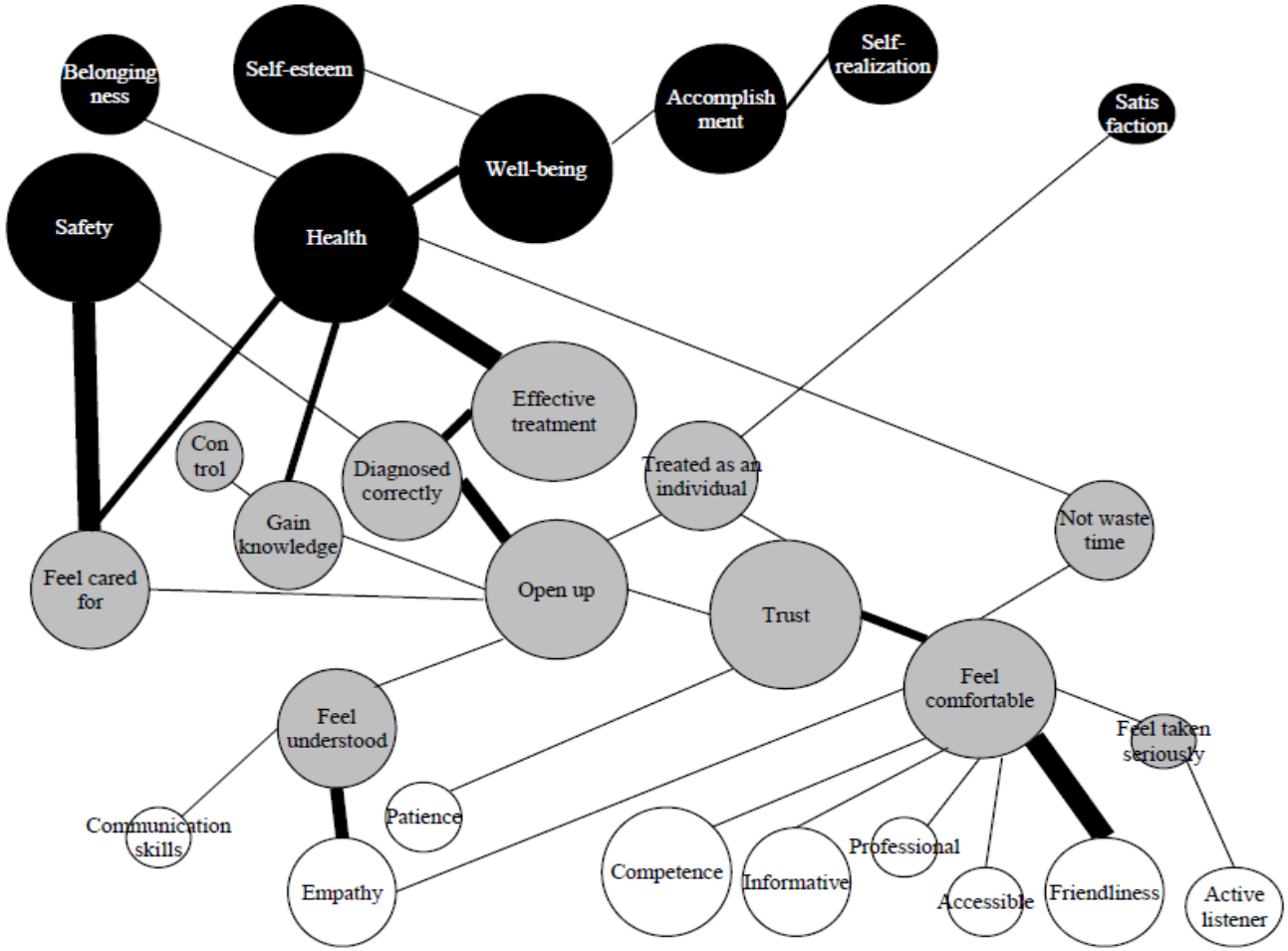

Figure 2.5 **Value Hierarchical Map (normal subgroup)**

(Gruber & Frugone, 2011, p. 506)

Note: White circles represent attributes; grey circles stand for consequences; black circles represent values

2.5.4 The study of Patterson, Ferguson, Lane, Farrell, Martlew, and Wells (2000)

Patterson, Ferguson, Lane, Farrell, Martlew, and Wells (2000) defined a competency framework for the role of a medical practitioner (general practitioner). Their study used three distinct methodological approaches to gain information on the competencies medical practitioners need to display for successful performance, namely (1) critical incidents focus groups with general practitioners (GPs), (2) behavioural observation of GP–patient consultations, and (3) critical incident interviews with patients. A final competency framework was developed and 11 competencies were elicited and shown in Table 2.9.

Table 2.9

Competency Definitions for General Practitioners by Patterson et al. (2000)

Competency	Definition
Empathy and sensitivity	Patient is treated with sensitivity and personal understanding, asks patient about feelings. GP is empathetic, in control but not dominating, and creates atmosphere of trust and confidence. Focuses on the positive rather than negative, works to involve the patient, shows interest in the individual, gives reassurance, and checks patient needs are satisfied.
Communication Skills	Actively listens to patients, understands, and interprets body language. Able to use different questioning styles and probes for information to lead to root cause. Matches patient language uses analogy to explain, engages in social conversation, confident style. Clarity in both verbal and written communication.
Clinical knowledge and expertise	Able to apply and trust one's judgement (and others') in diagnosing problems. Fully investigates problem before prescribing, able to anticipate rather than just react, and able to maintain knowledge of current practice. Doesn't allow patient to develop a dependency on others.
Conceptual thinking and problem-solving	Thinking beyond the obvious surface information, and getting to root cause. Use of lateral thinking, is open to new ways of thinking, and can judge what is important information from a mass of information.
Personal attributes	Desirable traits include flexibility (actions and thoughts), unselfish, patient, decisive, innovative, self-motivated, has warmth in dealing with others, passionate about the job and with a sense of idealism, has a sense of humour.
Personal organisation and administration skills	Able to organise a mass of information in a structured and planned manner, prioritise conflicting demands, and delegate when necessary. Uses IT systems and has strong financial awareness.
Professional integrity	Is open and honest with patients, demonstrates courage in one's convictions, acts upon them, and takes responsibility for one's actions. Demonstrates enthusiasm for job, appreciates the value of the contribution of others. Demonstrates respect and care for those whom society does not like. Puts patient needs before own.
Coping with pressure	Aware of own limitations and not keeping emotions 'bottled-up'. Shares the load with others, remains calm under pressure, able to 'switch-off' outside work. Demonstrates humility, able to apologise and to control one's anger.

Table 2.9 (Continued)

Competency Definitions for General Practitioners by Patterson et al. (2000) .

Competency	Definition
Managing others and team involvement	Demonstrates a collaborative style, is a skilled negotiator, builds bridges between people, and is able to motivate others. A team player who contributes to and facilitates decision-making, works with colleagues in partnership. Develops trust among partners and provides social support. Views self as part of larger organisation, able to compromise and use resources efficiently.
Legal, ethical and political awareness	Aware of legal/ethical implications of actions, treats patients in terms of appropriate clinical route rather than bowing to market pressures. Awareness of protecting self legally at all times, demonstrates lobbying skills both at local and national level. Aware of hidden agendas in governmental policy making.
Learning and personal development	Able to deal with changes in GP role, especially managerial and financial skills. Demonstrates ability to constantly update clinical skills and knowledge and computing/IT.

(Patterson et al., 2000, p.191)

The following five competencies were elicited from all participants in all conditions (GPs, patients, and GP–patient consultations):

- *Displays empathy and sensitivity,*
- *Demonstrates communication skills,*
- *Clinical knowledge and expertise,*
- *Conceptual thinking and problem-solving, and*
- *Personal attributes.*

Three competencies were elicited by both the GPs and patients:

- *Personal organisation and administrative skills,*
- *Professional integrity, and*
- *Coping with pressure.*

The remaining three competencies were elicited solely by the GPs:

- *Managing others and team involvement,*
- *Legal, ethical, and political awareness, and*
- *Learning and personal development.*

2.5.5 The study of Duncan, Cribb, and Stephenson (2003)

Duncan et al. (2003) identified specific competencies regarded as important when the question ‘What does a good medical practitioner do?’ was asked. Certain soft skills were identified as being of importance in being effective with patients, and these include

communication skills such as listening, body language, eye contact, and interpretation of the patient's own movements and gestures. Soft skills also included *showing empathy with the patient*.

Duncan et al. (2003) and Steward (2001) support the idea of *patient-centeredness* that is becoming a widely used concept within the medical practice fraternity. Furthermore, there are competing versions of the actual or potential 'centeredness' of medical practitioners. For instance, a medical practitioner's approach might be *technology-centred* or *disease-centred* and participants in the study also recognised the complexity of *patient-centeredness* and the potential for it to be in tension with other demands and requirements. Duncan et al. (2003) established that serving the patient involved *physical protection* and *psychological protection*, therefore a holistic approach to *patient-centeredness*.

2.5.6 Competencies identified by other studies

The results of a customer survey conducted by St Vincent's Hospital in Melbourne indicated that the most important attributes (competencies) of a good doctor in order of significance include; "caring, responsibility, empathy, interest, concern, competence, knowledge, confidence, sensitivity, perceptiveness, diligence, availability and manual skills" (Murtagh, 2011)

The World Health Organization stresses patient centred care by "putting people first since good care is about people" (World Health Organization, 2008).

2.6 Identifying Competencies of Medical Practitioners Working in Public Hospitals of South Africa

As mentioned in section 2.4, the latent outcome variables form the theoretical foundation of the competency model. It was argued that *trust, accurate diagnosis, proper treatment, adherence to prescribed treatment, patient motivation, sense of understanding, patient well-being, being treated as individual* and *patient satisfaction* constitute the outcomes a medical practitioner in South Africa should obtain. In order to achieve these outcomes a medical practitioner ought to display certain competencies (behaviours).

In order to *accurately diagnose* and treat a patient's medical condition, the medical practitioner ought to apply *medical professionalism* in that he/she applies specialist and detailed technical expertise. In working with other healthcare professionals and during the medical practitioner's encounters with the patient, he/she should remain professional and ethical at all times. *Medical professionalism* is postulated to influence the patient's *trust* in the medical practitioner and contributes to *patient well-being*.

Since the science of health and technology is continuously evolving, the medical practitioner should take the stance of a being lifelong learner to remain up to date with new healthcare developments in order to develop and maintain *medical professionalism*. *Lifelong learning* is also required from the medical practitioner regulatory board (HPCSA) in that the medical practitioners ought to gather a certain amount of Continuous Professional Development (CPD) credits in a year to maintain their registration.

In order for a medical practitioner to *accurately diagnose* a patient's health condition, the medical practitioner should not only have the required technical medical knowledge, but also have a comprehensive understanding of the patient's medical history and the manner in which the current physical or health problem manifests itself in symptoms (Duncan et al., 2003). Acquiring relevant information from a patient to get a clear understanding of the patient's symptoms and background is not always an easy task as patients may feel uncomfortable sharing certain information. Acquiring *relevant information* from a patient is complicated in some public hospitals of South Africa in that quite often the medical practitioner and the patient do not speak the same language. Medical practitioners then need to rely on a translator or even in more extreme cases, on gestures and signs.

To gather the relevant information the medical practitioner should be able to *communicate effectively* so that the patient understands what information is required. It is proposed that the patient should *trust* the medical practitioner to open up and honestly give the required information. Through *effective communication* the patient will have a *sense of understanding* of what the medical problem is, and what constitutes effective treatment to relieve or cure the problem. If the medical practitioner displays *patient-centeredness*, the patient would probably notice it and feel more comfortable in sharing information with the medical practitioner and *trust* the medical practitioner more than he/she would have if the practitioner was more clinical.

Moreover, if the medical practitioner is *patient-centred* the patient would probably be more satisfied with the medical encounter and feel *treated as an individual*. *Patient-centred* care may in addition lead to the patient feeling more *motivated* to *adhere to the prescribed treatment*.

As a result of the shortage of medical staff in the public hospitals of South Africa, medical practitioners work under stressful conditions. In assisting and monitoring a large amount of patients, while often having limited time to save a life, it is important that medical practitioners *cope with pressure* for overall *patient well-being*. During a rushed period of sick or injured people that need help, it is important for the practitioner to be able to manage the situation and remain calm. If the practitioner does not display this competency, he or she will

not be able to effectively help patients and would probably suffer from burnout as the pressure is too much.

Since medical practitioners are constantly faced with medical problems, for which they are expected to come up with a solution, *problem-solving* is a required competency for successful performance of medical practitioners (Patterson et al., 2000). *Problem-solving* is required to *accurately diagnose* the medical condition and to *prescribe treatment* for the patient. In the public hospitals where limitations exist regarding medical technology, room for patients and shortages on staff, *problem-solving* is necessary to overcome these problems. Even though *problem-solving* is necessary, it would be of little value if a medical practitioner is not able to make decisions.

Medical practitioners constantly work under pressure and constantly need to make decisions. A required competency would be effective *decision-making*. This includes the ability to make good decisions in limited time with the available information at that moment, especially in hospitals which are already exceeding their capacity. *Decision-making* should also include the participation of the patient or the patient's family if possible.

Medical practitioners work with people, whether it is dealing with patients, or directing other health care workers. According to Perkins et al. (as cited in Girgis, Sanson-Fisher, & Walsh, 2001), the interaction between the medical practitioner and the patient can be perceived as the one cornerstone of medical practice. *Working with people* is therefore required for the interaction and relationship between the medical practitioner and the patient. Moreover, *working with people* required to work with other healthcare professionals.

The South African healthcare sector, especially the public healthcare sector, requires medical practitioners to be more than professionals who reactively treat various medical conditions. Medical practitioners should be community leaders whose measures are proactively implemented to prevent certain poor health and disease manifestations amongst individuals. It is theorised that a competency should be included in the competency module that focuses on this aspect of a medical practitioner's job. The competency relates to the health advocacy role as defined in the CanMEDS framework by Frank & Snell (p.9, 2014) as "Medical practitioners responsibly use their expertise and influence to advance the health and well-being of individuals, communities and populations". However, the competency of *health advocacy* in the South African context ought to be further investigated through qualitative research so that a rich understanding can be obtained of what it means for South African medical practitioners.

The postulated partial medical practitioner competency model, displaying the hypothesised structural relations between the competencies and outcomes identified in the literature study (as well as the structural relations hypothesised to exist between the competencies and between the outcomes) is portrayed in Figure 2.6.

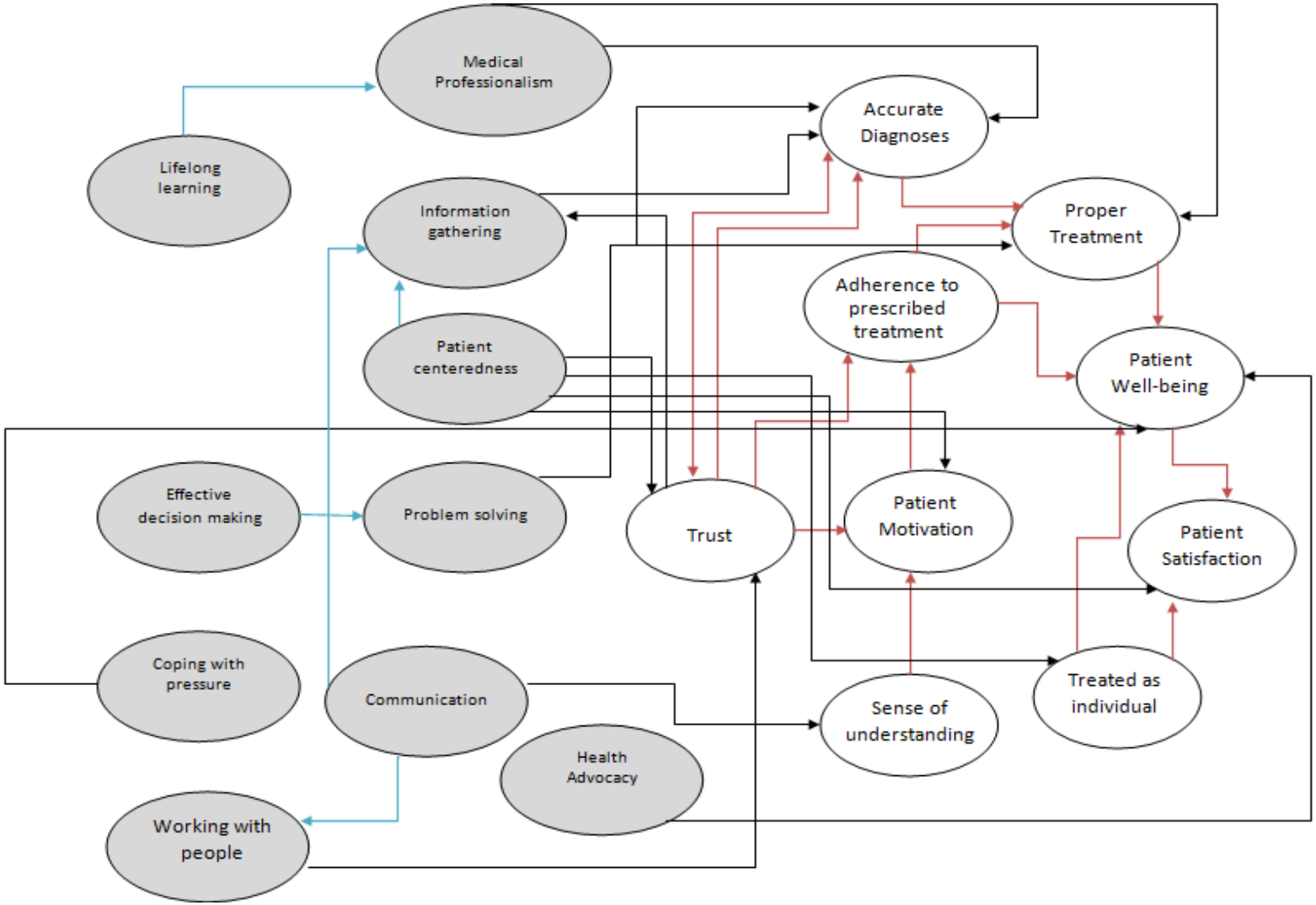

Figure 2.6. **Partial Medical Practitioner Competency Model (MPCM)**

Note: The grey circles represent competencies and the white circles represent outcomes. The blue paths represent the hypothesised structural paths between the competency latent variables; the black lines represent the hypothesised structural paths between the competency and outcome latent variables; and the red lines represent the hypothesised structural paths between the outcome latent variables

2.7 Definitions of Competencies and Related Behaviour Anchors

The selected competencies that were identified from the literature study and included in the partial medical practitioner competency model are defined in Table 2.10.

Table 2.10

Definitions of Medical Practitioner Competencies

Competency	Definition
1. *Medical Professionalism*	Apply specialist and detailed expertise and remain professional regardless of who the patient is.
2. *Communicating effectively*	To actively listen and comprehend what a person is saying through their words, writing and body language, and to accurately portray what you mean through your words, writing and body language, in a manner which is understandable for another person.
3. *Information Gathering*	To accurately collect all relevant information from a patient regarding their symptoms, medical history, family history, and any other information relevant to his/her medical condition, by asking the right questions and accurately comprehending it.
4. *Coping with pressure*	To remain calm while working under stressful conditions and to be able to take control of the situation and to remain effective.
5. *Problem-solving*	To recognise when problems exist, to analyse information and to identify different solutions to solve the problem with the specific resources and time available to do so.
6. *Effective decision-making*	To make good and accurate decisions with the available information in the given time.
7. *Patient-centeredness*	When the medical practitioner displays compassion, empathy, and responsiveness to the needs, values, and expressed preferences of the individual patient.
8. *Health advocacy*	Medical practitioners responsibly use their expertise and influence to advance the health and well-being of individuals, communities and populations.
9. *Lifelong learning*	Develops job knowledge and expertise (theoretical and practical) through continual professional development.
10. *Working with people*	Shows respect for the views and contributions of other team members; shows empathy; listens, supports and cares for others; consults others and shares information and expertise with them; builds team spirit and reconciles conflict; adapts to the team and fits in well. (Bartram, 2006)

In Chapter 3 the qualitative methodology will be described as to how the behavioural anchors for each competency will be obtained. Qualitative data collection was used to gain additional insight into the competencies that are important to succeed as a medical practitioner in South African public hospitals by examining the personal constructions of

family physicians on medical practitioner success. These behavioural anchors will be used as items in the South African Medical Practitioner Competency Questionnaire (SAMPCQ).

CHAPTER 3
RESEARCH METHODOLOGY

3.1 Introduction

The introductory argument presented in Chapter 1 highlighted the important role medical practitioner performance plays in healthcare facilities with reference to the health and well-being of patients. It was stated that the long-term objective of the study is to develop and test a medical practitioner competency model which is a structural model that reflects the medical practitioner competency potential variables, the situational variables as well as the competencies (behaviours) and outcomes that constitute medical practitioner performance. This structural model describes the manner in which the competencies are instrumental in achieving the medical practitioner performance outcomes and describes the identity of the person characteristics and situational characteristics along with the manner in which they combine to affect the level of competence that practitioners achieve on the competencies. The establishment of a medical practitioner competency model is imperative for selecting and developing the medical practitioners of South Africa. The more immediate, short-term objective of the current study is to develop a medical practitioner competency measurement instrument, namely the South African Medical Practitioner Competency Questionnaire (SAMPCQ).

The literature review revealed that no South African measurement instrument of this nature currently exists or is available in South Africa. To develop a measurement instrument requires at the outset the detailed conceptualisation of the construct that the instrument is expected to measure. The connotative meaning of a construct lies in the internal structure of the construct and the manner in which the construct is embedded in a larger nomological network of constructs. In Chapter 2, and in the preceding paragraph, it has been argued that performance construct should be interpreted to include both latent behavioural performance dimensions (competencies) and latent outcome variables. From the literature review a structural model has been derived that identifies the medical practitioner latent competencies and latent outcome variables for which medical practitioners should be held accountable for and presents the manner in which these latent variables structurally affect each other.

The question invariably arises whether a valid conceptualisation of the medical practitioner construct has thereby been achieved? The concern exists that the literature study might have failed to identify salient latent competencies and/or latent outcome variables and/or structural paths. Hence further qualitative data collection was required to understand the relevant South African medical practitioner competencies. The partial medical practitioner

competency model presented at the end of Chapter 2 (Figure 2.6) included the latent competencies that were identified from literature. Unfortunately, the literature in question is limited to international research and can consequently not simply be applied without considering the need for adaptation to the South African context. Since the South African context and culture is different from that prevailing in the United States, Canada and Europe, the latent competencies that were derived from the literature ought to be transferable to the South African context. Hence qualitative data was collected from a sample of medical practitioners practising in South Africa to determine whether all identified latent competencies are relevant in the South African context and to determine whether additional latent competencies need to be included in the partial medical practitioner competency model. To assess the adequacy of the conceptualisation derived from literature, medical practitioners were co-opted as co-researchers to get phenomenologically valid insight into the interpretative structures that they construct for themselves of what it means to be successful as a medical practitioner. Moreover, to be acceptable to medical practitioners, the manner in which medical practitioner performance is conceptualised in the eventual comprehensive competency model should at least correspond to the interpretative structures that medical practitioners constructed for themselves to develop an understanding of what medical practitioners are meant to achieve, and how these outcomes ought to be achieved, to be considered successful. The medical practitioner should be able to recognise his/her mental model of medical practitioner performance in the manner that the competency model interprets medical practitioner performance.

The purpose of the qualitative data gathering was, therefore, firstly to ensure trustworthiness and credibility of the connotative meaning of the medical practitioner construct. Moreover, to operationalise the medical practitioner competencies, specific behavioural denotations are required that reflect high, moderate and low levels of competence on the various competencies included in the model. Subsequently, the second purpose of the qualitative data collection was to generate behavioural denotations in which the latent performance dimensions observably manifest themselves so as to allow the development of a multi-indicator medical practitioner performance measure.

This chapter describes the research methodology used in this study to guide the qualitative data collected to assist in explicating the connotative and denotative meaning of the medical practitioner performance construct. The research methodology dictates how scientific objectivity and rationality was pursued in an attempt to reach the epistemic ideal of science of trustworthy findings. In qualitative research findings are regarded as trustworthy if they are credible, transferable, dependable and conformable (Shenton, 2004). The scientific method

is rational in the sense that it insists that the methodological choices made in pursuit of the research objective should be opened up for critical inspection by methodologically knowledgeable peers. The scientific method therefore attempts to increase the probability of trustworthy (i.e., permissible) findings, by evaluating the methodological rigour of the process used to arrive at the findings (Babbie & Mouton, 2003).

The scientific method is interpreted differently by different meta-theoretical schools of thought (Babbie & Mouton, 2003). The different meta-theoretical schools differ in the manner in which they interpret the epistemic ideal of science because they differ in terms of the manner in which the ontological and teleological dimensions of science should be defined. They therefore also differ in terms of the manner in which the methodological dimension of science should be defined. Although the foregoing argument on the manner in which scientific objectivity and rationality serves the epistemic ideal of science to arrive at trustworthy findings holds across the various meta-theoretical schools of thought, the manner in which the concept of trustworthiness are interpreted will differ and the method that needs to be opened up for critical inspection under the banner of scientific confirmability will differ.

The research design concerns the strategy, rooted in a specific meta-theoretical paradigm, that the researcher created to execute the investigation aimed at achieving the research objective as outlined below (Babbie & Mouton, 2003). The rationale underpinning the decision to root the research design of this study in the interpretive and constructive, qualitative paradigm is explained as well as the meta-theoretical assumptions that underpin the study. The philosophical and meta-theoretical section includes a discussion of the teleological, ontology, epistemology and methodological dimensions of scientific research as interpreted by the phenomenological or interpretive paradigm. Subsequent to this section, but related to the methodological dimension, the practical matters are discussed concerning the data gathering, capturing and analysis technique, along with the sampling strategy, strategies to ensure rigour in the research, the ethical considerations and finally, the development of the questionnaire.

3.2 Research Design

In an effort to contribute to the eventual development and testing of a complex hypothesis on the psychological mechanism that determines South African medical practitioner performance, the following research initiating question was identified in Chapter 1:

What behaviours constitute medical practitioner performance success?

More specifically, the following research initiating questions are asked in this study to explicating the connotative and denotative meaning of the medical practitioner performance construct that will allow the eventual development of the South African Medical Practitioner Competency Questionnaire (SAMPCQ):

1. What are the most critical medical practitioner latent competencies?
2. What would be examples of positive and negative behavioural anchors for each identified latent competency?

In considering the appropriate research design to eventually answer these research initiating questions, Babbie and Mouton (2003) distinguish between qualitative and quantitative research designs. Mouton (as cited in Schurink, 2009) states that qualitative research concentrate on the qualities of human behaviour. Therefore, it focusses on qualitative aspects and not quantitatively measurable aspects of human behaviour. As a result of the exploratory nature of this study a qualitative research methodology is deemed appropriate.

Denzin and Lincoln (2011, p. 3) describes qualitative research as:

> A set of interpretive, material practices that make the world visible. These practices transform the world. They turn the world into a series of representations, including fieldnotes, interviews, conversations, photographs, recordings and memos to self… qualitative researchers study things in their natural settings, attempting to make sense of or interpret phenomena in terms of the meanings people bring to them.

Through this qualitative research methodology the researcher investigated the participants' perceptions and beliefs regarding the behaviours that constitute successful medical practitioner performance. Information was gathered from Subject Matter Experts (SME's) to confirm that the latent competencies relevant to the South African context are included in the medical practitioner competency model and also to understand the behavioural denotations related to the identified competencies.

The data gathering phase focused on the following specific objectives:

- Substantiate the inclusion of the identified latent competencies, that was derived from the literature study, in the partial medical practitioner competency model;
- Identify additional latent competencies relevant to the South African context that have been omitted from the partial medical practitioner competency model;

- Derive behavioural denotations of the latent competencies that can be used to create items to be included in the South African Medical Practitioner Competency Questionnaire (SAMPCQ).

In qualitative methodology, the researcher is the tool through which the required data is collected, in order to meet the desired objectives (Polkinghorne, 2008). The researcher can use various means to gather qualitative data, which may include interviews, focus groups, the Delphi technique, nominal groups, document analysis, benchmarking, the repertory grid technique, and the critical incident technique (Myers, 2009). As the researcher is the medium through which the data is collected, it is important that the researcher should clearly understand the philosophical underpinning of the research.

3.3 Research Paradigm: Ontology, Teleology, Epistemology and Methodology

Science seeks to be objective (Babbie & Mouton, 2003). Objectivity is, however, quite often interpreted to mean that a discipline that commited itself to the scientific method studies a specific phenomenon in World 3[4] (Babbie & Mouton, 2003) without any preconceived ideas and that it stands totally neutral to the phenomenon of interest. This interpretation of objectivity is, however, false. According to Veldsman (1986), no discipline can study any phenomenon in World 3 (Babbie & Mouton, 2003) without preconceived ideas but, always unavoidably, has to study it from a specific frame of reference in the form of a set of fundamental concepts and presupposition. The set of fundamental concepts and presuppositions constitutes the paradigm of the discipline. The fundamental concepts are those unique and limited number of concepts that are required to describe the discipline's objective by demarcating the area of World 3 that the discipline intends studying and by explaining how it intends studying the demarcated area of World 3 (Babbie & Mouton, 2003; Veldsman, 1986). The presuppositions, in turn, are meta-theoretical answers to "what is?" questions put to the limited number of fundamental concepts that defines the discipline and distinguishes it from other disciplines (Veldsman, 1986). The paradigm (via its fundamental concepts) therefore, essentially, represents a discipline's declaration of intent in that it makes clear which area of World 3 the discipline intends studying and how it intends studying it. At the same time the paradigm is, however, also a discipline's credo (via its presuppositions) in that it makes clear what the discipline believes the essence of its

[4] Babbie and Mouton (2003) use the term World 3 to refer to the physical reality; the world we live in. World 2 is used to refer to the realm of constructs, hypotheses and theories whereas World 1 refers to the realm of meta-theory or paradigm.

demarcated area in World 3 is and what the essence of its chosen method of inquiry is. The focus in the current discussion falls on the latter aspect.

The discipline of industrial psychology is generally regarded as a science (Dunnette & Hough, 1991;Veldsman, 1986). The question relevant to the current discussion is therefore what is science? Babbie and Mouton (2003) distinguish between three broad meta-theoretical interpretations of science, namely positivism, phenomenology (alternatively also termed interpretist or construtivist) and critical theory. The different meta-theoretical positions are differentiated from each other in terms of their interpretation of the teleological, ontological, epistemological, methodological (Babbie & Mouton, 2003) and sociological dimensions of science (Mouton & Marais, 1990). Each of these meta-theoretical positions are committed to a specific methodology that is suited to its teleological ideal, namely (in the same order than before), quantitative research, qualitative research and participative action research (Babbie & Mouton, 2003).

The current study holds a dualistic paradigmatic position. Its ultimate objective is to contribute to the development of a medical practitioner competency model that describes the structural relations that exist between specific competency potential latent variables, latent variables characterising the work environment and the level of competence that is achieved on the medical practitioner competencies that constitute success and that describes how the level of competence that is achieved on the medical practitioner competencies affect the latent outcome variables for which the medical practitioner is held accountable. The long term objective is fundamentally explanation, motivated by the technological cognitive interest of improving medical practitioner performance (Habermas cited in Babbie & Mouton, 2003). In terms of its long-term objective the study is rooted in a positivistic paradigm (Babbie & Mouton, 2003; Mouton & Marais, 1990).

In terms of its short-term objective the study aims to identify the competencies that constitute medical practitioner performance and to identify observable behavioural denotations in which the latent medical practitioner competencies manifest themselves. To assist in the identification of the competencies the literature study started by first identifying the latent outcome variables for which the medical practitioner is held accountable. The relevance of the competencies are at least in part derived from their instrumentality in achieving the latent outcome variables for which the medical practitioner is held accountable. With assistance from previous published research the researcher theorised on the identity of the latent competencies and latent outcome variables and the manner in which they are structurally related. The *researcher* therefore constructed (part of) an explanatory psychological

mechanism from constructed latent variables that in the end will be presented as an hypothesis to *explain* why variance in medical practitioner performance exists.

This process of constructing explanatory, frameworks that offer meaningfulness, predictability and control is not unique to researchers formally acting as researchers. Humans differ from lower level animals in that their abstract thinking capacity allows them to develop thought objects in the form of concepts and to construct interpretive structures from these in terms of which they attempt to make sense of that which they experience in and around them (Babbie & Mouton, 2003; Pervin, Cervone & John, 2005). Individuals are guided in the manner in which they live their daily lives by the interpretive structure that they construct to make sense of the world around them. In a sense the structural relations in the interpretive structure serve as tacit rules that define the manner in which individuals "play the game." Phenomenology argues that, in order to *understand* the manner in which individuals live their daily lives, the interpretative structures that they construct should be understood from the perspective of the actor (Babbie & Mouton, 2003). Understanding of the interpretive structure is motivated by the emancipatory cognitive interest (Habermas cited in Babbie & Mouton, 2001) of liberating the actor from constraints imposed by unnecessary limiting structural relations in the interpretive structure. Babbie and Mouton (2001, p. 36) explain the emancipatory interest of research as follows:

> We constantly "mis-take" the false for the true, the apparent for real, the changing and variable for universal. … The aim of a critical social science is to liberate people from their state of alienation through the process of self-reflection. … The aim is to transform or change the human condition through a critique of those alienating to repressing factors which sustain their alienation/self-deception/false consciousness.

The current study aspires to obtain a phenomenologically valid understanding of the interpretative structures that experienced medical practitioners construced for themselves to develop an understanding of what medical practitioners are meant to achieve, and how these outcomes ought to be achieved, to be considered successful. Understanding of the interpretive structure in the current study is, however, not motivated by an emancipatory cognitive interest (Habermas cited in Babbie & Mouton, 2001). Rather it is fundamentally motivated by the technological cognitive interest of improving medical practitioner performance.

The interpretive structures developed by experienced medical practitioners are essentially explanatory hypotheses comparable to the explanatory structural model developed in the

current study. Although it is unlikely that experienced medical practitioners would naturally represent the interpretive structure as a path diagram, the thought objects and tacit rules constituting the interpretive structure can nonetheless be translated to a path diagram. Moreover, although the interpretive structure constitutes the phenomenological reality for the actor (i.e. the tacit rules are not regarded as hypotheses but rather as valid subjective epistemic claims), and as such serves to understand the actions of the actor, the tacit rules constituting the interpretive structure can nonetheless not be directly translated to objective epistemic claims that could legitimately inform externally initiaited actions aimed at altering medical practitioner performance. This is also true of the structural relations comprising explanatory structural model developed in the current study.

When knowledge production is viewed from the perspective of technological interest (rather than from the perspective of the emancipatory interest) the tacit rules constituting the interpretive structure and the structural relations comprising explanatory structural model both have to be regarded as hypotheses. That does, however, not detract from the fact that the gaining insight into the hypotheses developed by experienced medical practitioners can be of great value to the positivistic scientist attempting to develop an comprehensive hypothesis of what medical practitioners are meant to achieve and how these outcomes ought to be achieved to be considered successful. As part of his personal construct theory George Kelly coined the term *person-as-scientist* (Pervin et al., 2005, p. 387) to convey the idea that nonscientists in their everyday lives, like behavioural scientists, essentially develop explanatory structural models that allow them to predict significant events in their daily lives. Moreover nonscientists, like behavioural scientists, empirically test their hypotheses by deducing observable implications from their hypotheses, and if necessary, modify their theories.

The current study aims to develop a South African Medical Practitioner Competency Questionnaire as well as a structural model that explicates the outcomes that medical practitioners are meant to achieve to be considered successful and the behaviours through which these outcomes can be achieved. Experienced medical practitioners were consulted in this endeavour as *co-researchers* by attempting to get phenomenologically valid insight into the interpretative structures that they construed for themselves of the phenomenon under investigation.

Qualitative methodology offers the most fruitful approach to gain this insight. Ritchie, Lewis Nicholls and Ormston (2013, p. 11) state that qualitative research tends to “place emphasis and value on human interpretation of the social world and the significance of both

participants' and the investigator's interpretations and understanding of the phenomenon being studied". The philosophical underpinning of science in general and qualitative research in particular can be described in terms of the manner in which the phenomenological meta-theoretical interpretation of science interprets the teleological, sociological, ontological, epistemological and methodological dimensions of scientific research. The teleological dimension represents the meta-theoretical position on the objective and purpose of research. The sociological dimension acknowledges that research is a collaborative activity and represents the meta-theoretical position on the nature of the relationship between researchers and between the researcher and research participants (Mouton & Marais, 1990). The ontological dimension refers to the "view of the nature of reality or being" (Saunders, Lewis, & Thornhill, 2009, p. 119). The epistemological dimension refers to the "view regarding what constitutes acceptable knowledge" (Saunders et al., 2009, p. 119). The methodological dimension represents the meta-theoretical position on the methodology that is required to ensure that the epistemic ideal will be achieved. Methodology therefore serves the epistemic ideal (Babbie & Mouton, 2001; Mouton & Marais, 1990).

The sociological dimension represents the meta-theoretical position on the relationship between researcher and research participant. The current study adopted a phenomenological position that emphasises the participant-centeredness of the research. The teleological dimension reflects the reason why research is conducted. For the purpose of the current study a dualistic phenomenological and positivistic teleological position was adopted as was argued in the preceding paragraphs. The objective of qualitative research is to *understand* the interpretive structure developed by experienced medical practitioners on what medical practitioners are meant to achieve and how these outcomes ought to be achieved to be considered successful. The longer-term purpose of this understanding is, however to develop a comprehensive explanatorty medical practitioner competency model that can be used to inform interventions aimed at improving medical practitioner performance.

Ontology concerns whether there is "a shared social reality or only multiple, context-specific ones" (Ritchie et al., 2013, p. 4). One may distinguish between four main ontologies, namely positivist, post-positivist, critical theoretical, and constructivist views of reality (Guba & Lincoln, 2005). For the purpose of the current research the constructivist ontology is

adopted[5], from which reality is understood relative to the medical practitioners' co-created understandings of the social contexts in which they find themselves (Babbie & Mouton, 2003; Guba & Lincoln, 1994). The constructivist ontology has been deemed an appropriate view of reality since it acknowledges the subjective nature of the participants' perceptions (Jankowicz, 2003) of medical practitioner behaviour necessary for effective performance.

Epistemology refers to the credibility of research findings. Epistemology focuses on issues such as how we can learn about reality and what forms the basis of our knowledge (Ritchie et al., 2013). Epistemology attempts to create a joint understanding between the researcher and the participant in terms of the way the world is perceived by the participant (Eriksson & Kovalainen, 2008). Epistemology therefore concerns "the way in which knowledge is best acquired" (Ritchie et al., 2013, p. 6) as well as "the relationship between the researcher and the researched and how this influences the connection between 'facts' and 'values'" (Ritchie et al., 2013, p. 6). The objective of qualitative research is to obtain a *trustworthy understanding* of the interpretive structure developed by experienced medical practitioners. The understanding can be regarded as credible to the extent to which it accurately reflects the phenomenological reality of the actor.

This epistemological ideal will be achieved through a participant-centred qualitative research method in which the researcher attempts to view reality through the experience of the actor and by attempting to lose themselves and immerse themselves in the phenomenological world of the actor when eliciting and discovering the personal constructs the family physicians hold regarding successful medical practitioner performance.

The research approach is explicated in terms of the teleological, ontological, epistemological and methodological perspectives on the study. These perspectives are embedded in a larger framework, known as the research paradigm (Denzin & Lincoln, 2005). A paradigm can be defined as a "set of interrelated assumptions about the social world which provides a philosophical and conceptual framework for the organized study of that world" (Filstead, 1979, p. 34). A research paradigm provides the context of a researcher's study (Ponterotto, 2005). One can distinguish between the positivist, interpretive and critical research paradigms (Nieuwenhuis, 2007). Kant held that reality is not only the observable, but that reality is constructed by the individual (e.g., research participants) (Ponterotto, 2005). This constructivist philosophy is captured in the interpretive and constructive research paradigm.

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[5] It is acknowledged though that in terms of the longer-term objectives of the research assumes a positivistic ontology. The dualistic paradigmatic roots of the current research study carries across the teleological, sociological, ontological, epistemological and methodological dimensions of scientific research.

Interpretivism is a research paradigm that stresses the importance of interpretation as well as observation in understanding the social world. The related movement of constructionism emphasises that knowledge is actively constructed by human beings, rather than being passively received by them (Ritchie et al., 2013). Interpretivism and constructivism holds that knowledge is produced by exploring and understanding the social world of the people being studied, focusing on their meanings and interpretations. This paradigm acknowledges that researchers also construct meanings and interpretations based on those of participants. The research process is considered to be mainly inductive since that interpretation is grounded in the data, though it is also recognised that observations are 'theory-laden' because they are mediated by ideas and assumptions. This paradigm holds that reality is affected by the research process, facts and values are not distinct, and objective value-free research is impossible. Therefore, researchers should attempt to be transparent about their assumptions and attempt to adopt a neutral position (Ritchie et al., 2013).

It is important that the researcher enter the social world of the participants and understand their world from their point of view (Saunders et al., 2009). Consequently, interpretivism is selected as the most appropriate research paradigm for this study in understanding what behaviours are required for successful medical practitioner performance.

3.4 Data Gathering Techniques

Three qualitative data gathering techniques was considered for this research study, which include the Repertory Grid Technique (RGT), the Critical Incident Technique (CIT) and a Focus Group.

3.4.1 Repertory Grid Technique (RGT)

The repertory grid technique is assumed to be the most suitable qualitative data-gathering technique for the purpose of this study, due to the fruitfulness of the data that could be gathered from the participants' mental models of effective medical practitioner performance. The repertory grid is a qualitative research data gathering technique used by the researcher to elicit personal constructs on how individuals perceives his or her world and the people in it (Fransella, Bell, & Bannister, 2004).

The repertory grid originated from George Kelly's personal construct theory and has been an established psychological data gathering technique for over 50 years (Fransella & Neimeyer, 2003). The repertory grid technique consists of three essential structures: (a) elements, which are the objects of thought within a person's environment, and can be people, places or ideas; (b) constructs, which are the thoughts and believes a person uses to describe and

differentiate between elements. Constructs are bipolar and consequently have positive and negative poles; and (c) linking mechanisms, which are the various ways that show how elements and constructs are linked (Easterby-Smith, Thorpe, & Holman, 1996).

Kelly (1955) defines a construct as “a way in which two things are alike and, in the same way, different from the third”. The bipolar meanings of constructs that emerge from the experiences inform the researcher of the sincere perceptions of the participants regarding the phenomena at hand. Easterby-Smith et al. (1996) assert that the fact that the construct is bipolar is important, since describing what something is, is simultaneously describing what it is not. Therefore defining what effective medical practitioner performance is, is concurrently illuminating what it is not. It is stressed that constructs should be regarded as an on-going process of construing or sense making, rather than being static (Fransella et al., 2004).

Lemke, Clark and Wilson (2011) indicate that repertory grid technique results in a greater depth of construct/behaviour elicitation, than ordinary semi-structured interviews do. It is further maintained that the technique is valuable in minimizing the use of jargon and social desirability bias in the respondents’ answers.

The repertory grid is applied in phase 2 of the interviewing process to elicit behaviours from the participant in aiding the researcher in developing a comprehensive medical practitioner competency model and to gain relevant items for the South African Medical Practitioner Competency Questionnaire. For the purpose of this study an ‘element’ refers to any medical practitioner with whom the participant have worked with.

3.4.2 Critical Incident Technique (CIT)

The Critical Incident Technique (CIT) is a qualitative data gathering technique used to elicit information on specific behaviours associated with high, average and low standing on the phenomena under contention. In this study through the use of the CIT the researcher may collect specific and significant behavioural symptoms (competency indicators) of a high and low standing on the various latent competencies from respondents that are intimately familiar with the job of a medical practitioner in public hospitals in South Africa (Flanagan, 1954).

The CIT is defined by Flanagan (1954, p. 327) as “a set of procedures for collecting direct observations of human behaviour in such a way as to facilitate their potential usefulness in solving practical problems and developing broad psychological principles. The critical incident technique outlines procedures for collecting observed incidents having special significance and meeting systematically defined criteria”. The strength of this method includes the following characteristics as stated by Boyd and Westfall (as cited in Swan &

Rao, 1975, p. 307) “(a) the critical incident technique helps to define the issue – that is, to make clear to the respondent the who, what, when, where, why, and how; (b) it involves simple, easy to understand questions; (3) the questions are specific; and (d) by asking the respondent to name incidents, the questions concerning such incidents are within the respondent’s experience”.

The critical incident technique is used in phase 3 of the interviewing process to overcome unhelpful generalisations as well as personal bias. It requires participants to recall situations in which the medical practitioner’s behaviour is sufficiently definite and noteworthy to allow determination of their effectiveness or ineffectiveness. (Chitsabesan, Corbett, Walker, Spencer, & Barton, 2006).

3.4.3 Focus Group

A focus group discussion that takes on the form of a small workshop utilising the Critical Incident Technique (CIT) was considered as a data gathering technique. It is believed that a discussion on the identified latent competencies will elicit valuable examples of behaviours (competency indicators) relevant to this study. However, the researcher came to realise that the probability of orchestrating a focus group by having a group of practicing medical practitioners together simultaneously is highly improbable as a result of logistical and schedule constraints. In addition, Chitsabesan et al. (2006) argue that focus groups may limit expression of individuals’ views where participants influence one another. It was decided that it will be more effective to continue with individual interviews and not to include the focus group as a qualitative data gathering technique.

However, a focus group was considered as part of the triangulation process to confirm the trustworthiness of the information. it would have been of value if a small focus group could have been facilitated with participants with the main purpose of getting feedback from the candidates to confirm the credibility of the information that was gathered. Unfortunately, this was not possible due to the participants’ availability and time constraints.

3.5 Sampling Strategy and Research Participants

The research question of this study was formulated with reference to a particular target population: South African medical practitioners practicing in public hospitals. To interview the entire target population would not have been practical and subsequently a representative sample was used for data gathering. The selected sample should ideally be related to the population in a systematic fashion. More importantly the individuals that serve as SME should be intimately familiar with the social worlds and phenomena of medical practitioners

that operate in public hospitals in South Africa (Babbie, 2011). Selecting a probability sample of SME from the target population for the purpose of the interviews was not practically feasible in this study. Non-probability sampling, in which the selection of SMEs depends on their knowledge, availability and willingness, was therefore used. This technique offers a valuable sampling design for both qualitative and quantitative studies (Collins & Onwuegbuzie, 2007).

The sample included family physicians that act as supervisors of public hospitals. Family physicians are medical practitioners who have specialised in family medicine (specialised general practitioners). The research sample was selected through two non-probability sampling techniques, including the convenient sampling technique and the snowball sampling technique. Convenience sampling is a non-probability sampling technique that involves drawing samples that are both easily accessible and willing to participate in a study (Teddlie & Yu, 2007). A convenient sample was selected for the purpose of the interviews as the goal was not to generalise findings to a population, but to obtain insights into the phenomenon being studied (Collins & Onwuegbuzie, 2007).

Snowball sampling is the process whereby the researcher approaches a few individuals, from the relevant population, after which these approached individuals act as informants, who identify other members from the same population for inclusion in the sample (Welman, Kruger, & Mitchell, 2005). Snowball sampling was selected for the purposes of this study, as the population (specialised medical practitioners, working as supervisors in public hospitals) is a small population, and the individuals are difficult to contact. Snowball sampling is continually utilised until data saturation is obtained. Data saturation occurs when enough information is gained for any further acquisition of information to be fruitless. Participants were contacted via email and if they agreed to participate in the study the researcher scheduled an appropriate time with them. All interviews were conducted in a quiet room that was free from distractions.

This qualitative study aims to assist in the conceptualisation of the medical practitioner performance construct and to aid the developmental process of the SAMPCQ in identifying relevant and South Africa-specific items to be included in the measurement instrument. Furthermore a constructive partnership exists between the Industrial Psychology Department of University Stellenbosch and Centre for Health Professions Education, Faculty of Medicine and Health Sciences which simplified the issue of obtaining research participants.

In order to qualify for inclusion as participant in this research study, participants had to comply with the following minimum inclusion criteria:

1. The selected individuals should be a subject matter expert (SME)
2. The participant should be a family physician
3. The family physician should be practicing in the Western Cape.
4. The participant should have at least two years of practical experience in a supervisory role at a public hospital.
5. Ideally the sample should include a balance in terms of diversity (e.g. race, gender, etc.).

The criteria are aimed at ensuring knowledgeable SMEs that have a detailed understanding of what medical practitioners in public hospitals are expected to achieve in terms of outcomes, what they need to do well to successfully achieve these outcomes and how these aspects are inter-related, but that also have a rich reservoir of critical incidents that illustrate success and failure on various competencies.

3.6 Data Gathering Process

The data gathering techniques used during the interviews provided the focused interaction needed to gain insight into how participants perceive the phenomenon under discussion. The repertory grid technique (RGT) and critical incident technique (CIT) are two techniques that are relatively free of researcher influence and that are widely used in research to elicit information on behaviours (Chitsabesan et al., 2006) and were selected to use during the interviews in this study. After the data analysis was done the researcher gave each participant access to his or her analysed data to determine whether it was presented accurately. The researchers had the opportunity to change or add to the data.

The RGT and the CIT were used in a complementary fashion in different phases of the interviews to elicit the competencies and the appropriate behavioural indicators responsible for effective medical practitioner performance. By firstly applying the RGT to elicit behaviours by means of comparing different medical practitioners and then following that up by using the CIT to elicit behaviours from situations in a complementary fashion, the same research question is investigated from different angles which should enhance the credibility of the data.

The same interview guide (see Appendix B) was followed during each interview to ensure consistency and, additionally, that the most critical questions are covered throughout the data collection process in each interview.

3.6.1 Interviews

Interviews were administered in a comfortable and private setting devoid of noise and distraction and were scheduled to be approximately one and a half hours in duration. Due to the participant's busy schedules two interviews was only one hour. The researcher was allowed to follow-up on one of the participants by means of a telephonic interview.

Each interview included four phases, each of which again consisted of different stages. The phases included the introduction, repertory grid technique, critical incident technique and concluding the interview. The interview process is outlined schematically in Figure 3.1. The relevant stages for each phase will be discussed in the following sections.

3.6.1.1 *Phase 1: Introduction*

The first stage of the interview process was establishing rapport and the introduction to the research study. A summary description of the objective of the research and of the nature of the interview was emailed to participants prior to the interview to allow them to prepare themselves for the interview. The interviewer established rapport by welcoming the participant and thanking him/her for attending the interview. The interviews then commenced with a brief explanation of the purpose of the study and the interviews, followed by an explanation that the information obtained via the interviews will be treated as confidential and that participation is voluntary. Participants were informed that the interviewer will be making notes and will record the interview by means of an audio recorder.

During the second stage of the introduction the researcher gained informed consent and collected biographical information from the participant. Interviewees were provided with an informed consent form (Appendix A) to confirm that they consent to the interview. A copy of the form was emailed prior to the interview to allow them sufficient time to study the information provided in the informed consent formulation. After this introduction the interview commenced.

3.6.1.2 *Phase 2: Repertory Grid*

The first stage of the repertory grid phase of the interview commenced with an introductory question as the start of the repertory grid technique. The introductory question aims to focus the grid. This study focuses on medical practitioners and in essence investigates what behaviour constitutes successful medical practitioner performance. Participants were asked to consider three medical practitioners (referred to as elements in RGT terminology), either good or poor performers, with whom they have worked in the public hospital setting. The

participant was asked to write the names, or something that would remind them of the medical practitioner on the numbered card. The 3 medical practitioners (elements) grouped together are known as a triad. The medical practitioners recalled by the participant were numbered 1 to 3 (the first triad).

The repertory grid gives the number of elements (medical practitioners) on the horizontal axis and the number of behavioural constructs on the vertical axis. For example if the participant contrast the first triad (element 1, 2, 3) where element 2 and 3 are similar and element 1 is different, the researcher will indicate this on the repertory grid by marking 1 with "D" and 2 and 3 with a "S", see Table 3.1. The word or phrase describing the behaviour that distinguishes between the elements is given on the right, under constructs. The researcher then asked the participant to indicate which construct is the positive construct and the researcher will mark it with an "*".

Table 3.1

The Repertory Grid

Elements											**Constructs**	
No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Why 2 similar**	**Why 1 different**
1	D	S	S								e.g. Friendly*	e.g. Not friendly
…												
End												

During the second stage of the repertory grid phase constructs were investigated by asking the participant to describe a way in which 2 medical practitioners are behaviourally similar to each other and different from number 1 in terms of the way in which they perform their job. The differences may be either good or bad. This question was repeated for elements 2 and 3 so that at least three comparisons have been made during each triad. The participant was again asked to think of 3 new elements (triad), which were numbered 4 – 6, and the same question was repeated so that at least 6 different behaviour examples was elicited. Where possible this process was repeated again, where different triads was formed with the given 6 elements (e.g. 1, 4, 5; 2,4,5;…etc.).

Stage 3 of the repertory grid phase explored the deeper meaning of the participant's articulations and was used throughout stage 2. When a participant articulated a construct, their response can range from a single word or phrase, to a long vague explanation. The researcher had to understand what the respondent meant to ensure the accurate reporting

of the data obtained. If the combinations made by participants lacked clarity or detail the probing procedure of *laddering* was included in the data-gathering process to better understand the participant's articulation of the given construct. Laddering enriches the information provided by the participants to illuminate the specified behavioural similarities and contrasts stated (Senge, Kleiner, Roberts, Ross, & Smith, 1994). Fransella et al. (2004) describe laddering as the procedure in which researchers inquire into the constructs elicited by participants, in order to obtain more clarity regarding the value and meaning that participants attach to the similarities and contrasts between elements. Laddering is based on the assumption that construct systems are hierarchically organised from specific descriptive up to general (SHL Group Limited, 2006). This assumption makes two types of laddering possible: (1) laddering up which provides an exploration of meaning and an idea of where the value lies within the construct, and (2) laddering down, where the initial constructs are evaluated but insufficiently descriptive (SHL Group Limited, 2006). In Layman's terms laddering up is probing questions that identify the general from the specific, and laddering down aims to identify the specific from the general. For example, a participant might have said that one medical practitioner differs from the other two in that the medical practitioner explains the medical condition in detail to the patient, where the other two elements do not describe the medical condition in detail to the participant. By using laddering up the researcher determined whether the issue is educating the patient, *communication* skills or being detail orientated. In laddering up the researcher asked "why" questions to identify the essence in the contrasts presented by the participants. This crucial information could only be uncovered by laddering up the construct until the superordinate construct (competency) was reached. This superordinate construct conveys the ultimate meaning and can be seen as the umbrella term including various manifestations of the construct. Laddering down entailed discovering how the medical practitioner would explain the medical condition in detail to the patient. Laddering down (also referred to as pyramiding) was used as a construct clarification technique. Laddering down asked "how" questions in order to explore the participant's understanding of a particular constructs (Fransella et al., 2004; Senge et al., 1994). The response to laddering down typically included specific behavioural examples such as "he would draw a picture for the patient", "he would explain holistically what the possible origins of the condition is, how it can be treated and what the prognosis is" and "he would ask the patient whether he or she understands and if they have any more questions to ask". By laddering down the researcher obtained specific measurable behavioural examples of the construct/competency at hand. The laddering technique was applied in the following ways (a) by asking the responded what they meant for example, "what do you mean by a good communicator?"; (b) by asking the respondent what their opposite response would be

for example, “what would be the opposite of a good communicator be?”; (c) by asking the respondent to answer in an alternate way (Easterby-Smith et al., 1996).

Laddering was continually used during each repertory grid session until all the constructs, similarities and differences between the elements were clarified. The researcher then informed the participant that it was the end of the repertory grid phase and that the interview will proceed with the next phase, namely the critical incident technique.

3.6.1.3 *Phase 3: Critical Incidents*

The critical incident phase commenced with the researcher informing the participant that questions regarding medical practitioner performance relating to specific performance dimensions will be asked. Responses may include performance examples of any medical practitioner in the public health care sector; it does not have to be one of the previously selected medical practitioners.

During the first stage of this phase the interviewee’s were referred to a specific medical practitioner performance dimension (competency as identifier from literature in Chapter 2) and asked to think of a medical practitioner that they consider as one of the best performers they know (or have known) with regards to that specific dimension. The subject matter experts (SMEs) that are interviewed were given the formal constitutive definition of the competency in question. They were then asked to motivate or justify that assessment by describing specific incidents that illustrate the practitioner’s competence on the specific competency. The participant was first asked to think of a medical practitioner who is one of the best performers on the given competency by asking the following question (example):

> Think of a medical practitioner who, according to your assessment, is one of the best performers on the performance dimension/latent competency *medical professionalism*. The performance dimension/latent competency *medical professionalism* is defined as:
>
> > Apply specialist and detailed expertise and remain professional regardless of who the patient is.
>
> Please motivate/justify your position that this medical practitioner is highly competent on the competency of *medical professionalism* by describing specific incidents that illustrate the practitioner’s competence on the specific competency. Please explain exactly what the specific medical practitioner did in the specific incident and why you regard it as a good illustration of his/her competence on this specific competency.

After he/she has explained the incident they were asked to explain the specific behaviour they have observed leading to the conclusion or assessment that the practitioner is highly competent on the dimension in question. These behaviours or incidents were written down as short, specific statements and was eventually used as items for the SAMPCQ.

During the second stage of the critical incident phase the interviewee was asked to think of a medical practitioner that they consider as one of the poorest performers they know (or have known) with regards to that specific dimension. They were then again expected to describe incidents that illustrate the practitioner's incompetence on the specific competency and to explain the specific behaviour they have observed leading to the conclusion or assessment that the practitioner is less competent on the dimension in question. The SME was asked the following question:

> *Think of a medical practitioner who, according to your assessment, is a less effective performer on the performance dimension/latent competency medical professionalism.*
>
> *Please motivate/justify your position that this medical practitioner is less effective on the competency medical professionalism by describing specific incidents that illustrate the practitioner's competence on the specific competency. Please explain exactly what the specific medical practitioner did in the specific incident and why you regard it as a poor illustration of his/her competence on this specific competency.*

This procedure was repeated for a number (but not all) of the competencies included in the partial medical practitioner competency model (as identified in Chapter 2). The number of structured questions was limited to give the interviewee the opportunity to elaborate on behavioural elements he/she perceived to be important for effective medical practitioner performance.

In questioning the interviewee a funnel-approach was used where the researcher started with broad, open questions and narrowed them down to more specific probes (Darity, 2008). Throughout the interview, the interviewer asked clarifying and probing questions to cover more specific elements of a performance domain as well as to confirm whether the given information was interpreted correctly. This procedure was repeated for each of the competencies that were included in the competency set for the interview in question.

In order to elicit the comprehensive denotative meaning of the competency at hand it was decided to focus on only 4-5 competencies during each interview. This avoided the problem that the interviewee got despondent due to having to concentrate too long having to provide excessive information on too many competencies. A competency schedule (see Table 3.2) was created so that each interviewee was scheduled to discuss 5 competencies in different combinations.

It was expected that data saturation would be obtained by the tenth interview and therefor the schedule made provision for ten interviews. However, data saturation was already achieved by the sixth interview, but the researcher did another one for confirmation. After the first interview was done the researcher realised that firstly the interview is very long when the participant has to describe more than four competencies during the critical interview. The researcher then limited the interviews to only discuss 3-4 competencies. The competency schedule was adapted accordingly to ensure that each competency was investigated at least three times.

Table 3.2

Competency Schedule for Critical Incident Technique (CIT)

		Competencies									
		Medical Professionalism	Communication	Information Gathering	Coping with pressure	Problem solving	Effective decision making	Patient centeredness	Lifelong learning	Working with people	Health Advocacy
Interview	1	1		5	2			3			4
	2	4	1		5	2			3		
	3		4	1		5	2			3	
	4			4	1		5	2			3
	5	3			4	1		5	2		
	6		3			4	1		5	2	
	7			3			4	1		5	2
	8	2			3			4	1		5
	9	5	2			3			4	1	
	10		5	2			3			4	1

The y-axis gives the number of interviews and the x-axis indicates the competencies identified from literature. The schedule was composed by selecting every third competency per interview until five competencies were selected. The first competency for each interview

started at a different competency as illustrated in yellow on the interview schedule. The subsequent competencies are illustrated in green and again every third competency was selected, by counting again from the beginning, until five competencies were selected per interview. The order of the competencies investigated in the interviews is numbered 1- 5 in the interview schedule. Thus, the competencies included for discussion for the first interview included *medical professionalism* (first), *coping with pressure* (second), *patient-centeredness* (third), *health advocacy* (fourth) and *information gathering* (fifth). Competencies were selected in this fashion so that each interview dealt with a different combination of competencies and in a different order so that certain competencies were not continuously dealt with at the end of the interview when the participant might be fatigued.

3.6.1.4 *Phase 4: Concluding the interview*

Once the allocated time for the interview expired or data saturation was achieved, and no new constructs were elicited from the participants, the interview proceeded to the final phase of the interview process. In this stage, the researcher thanked the participants for their participation, and provided them the opportunity to ask questions or to supplement the data if they would have had any contribution they would like to make to the research study.

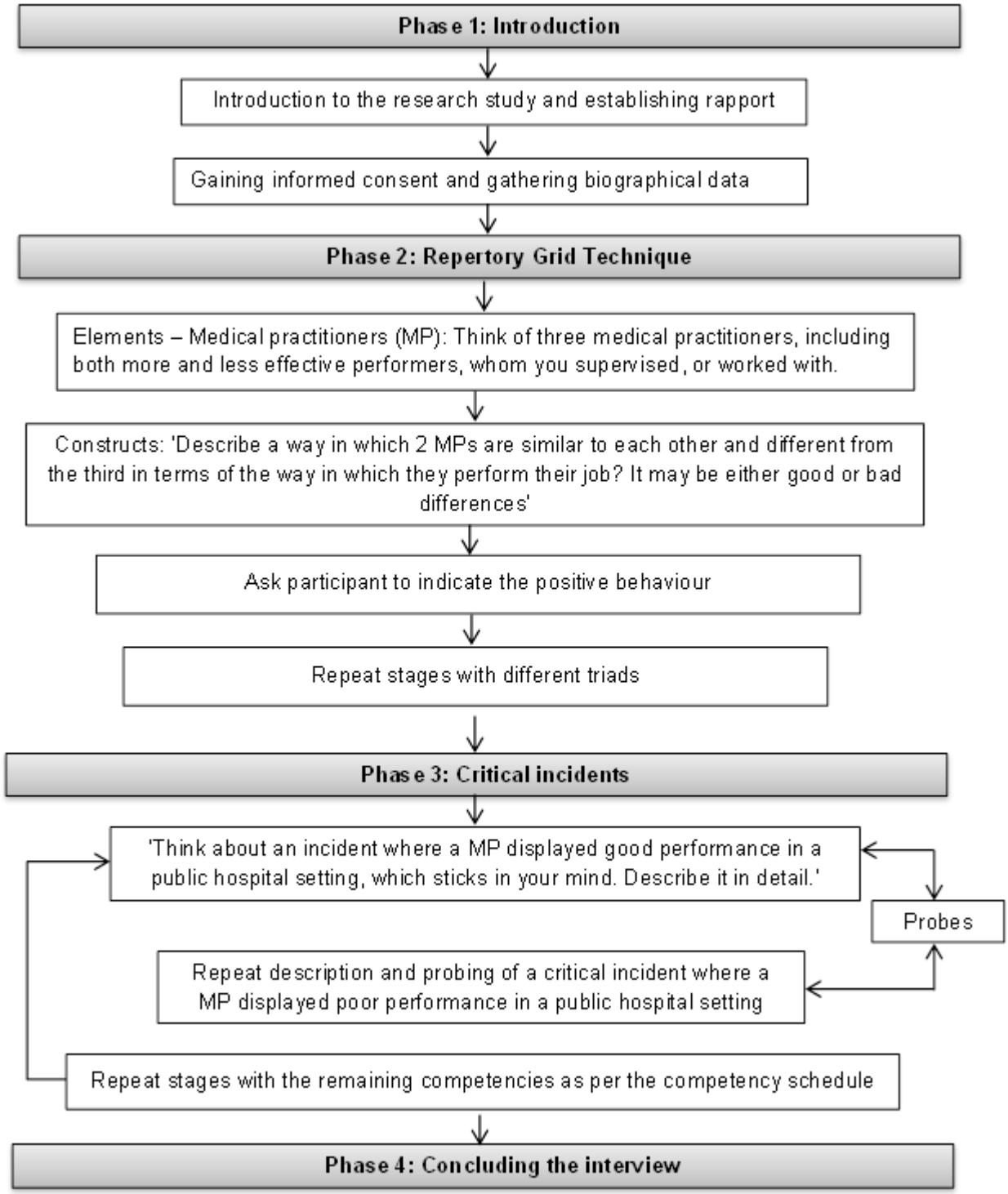

Figure 3.1 **Interview Flow Chart Showing Stages of the Interview Process**

(Adapted from Chitsabesan et al., 2006)

3.6.2 The interview guide

Given that the interview utilised the repertory grid and the critical interview technique, an interview guide was compiled to assure that the same topics were covered and that the interviewing techniques were applied in the same way in all the interviews (Babbie, 2011).The interview guide was used to document the specifics of the interviewee, to give more information about the interview itself, and to state the questions that are to be asked. Please refer to the interview guide in Annexure B.

3.7 Ensuring Scientific Research

Throughout the research process the researcher strove to apply certain techniques in order to thoroughly and plausibly understand the participants' responses. One of these techniques includes laddering which entails probing for more information.

Another essential technique that the researcher utilised was to attempt to accurately subsume the participant's construing system or interpretive frame work and therefore to validly (from the participants perspective) understand the participants phenomenological world. The researcher attempted to come as close as possible to seeing the world through the participant's eyes (Bell, 2005). "Subsuming involves seeing the world through another's eyes and – even experiencing some of the feelings involved – but also maintaining a sense of oneself as being separate from the other" (Bell, 2005, p. 42). Only by subsuming the way in which the participant perceives reality, can the researcher gain a personal understanding of that person's values, perceptions and beliefs.

In addition to subsuming, the researcher had to accurately interpret participants' responses and not add one's own interpretations and assumptions to the information provided. This required the skill of credulous listening, which involved taking utterances at face value, without simply accepting their construing. Kelly (1955) developed the credulous listening technique, in which the researcher withholds his interpretations of the participants' experiences, in order to report their responses as truthfully as possible (Jankowicz, 2003). Credulous listening is a way of listening, where everything the participant says is essentially taken at face value (Fransella et al., 2004). Whatever a participant said in the interviews was therefore accepted as true, even when the researcher knew it to be false. This was done so that the researcher can identify the reason for the participant's false truth, from that participant's perspective. Credulous listening attempts to find the meaning in the participant's responses and does not allow for the researcher to translate the responses in their own words and to include their own meanings in it. The credulous listening technique was used to

ensure that the data was objectively and scientifically gathered, by being an accurate account of the participant's perception and free from researcher assumptions.

3.8 Data Analysis

The main purpose of analysing data is to organise it, provide structure to it, and elicit meaning from it. Consequently, the data is synthesised, interpreted, and communicated to ascribe meaning to it (Polit & Beck, 2008). The analysis of qualitative data involves "the non-numerical organisation of data in order to discover patterns, themes, forms and qualities" (Labuschagne, 2003, p. 102) from the interview responses.

Thematic analysis is a widely used qualitative analytic method within psychology (Braun & Clarke, 2006). Thematic analysis was thought an appropriate data analyses technique for this study as the researcher endeavours to elicit themes (competencies) that are required for medical practitioner performance success. Thematic analysis is a method for "identifying, analysing and reporting patterns (themes) within data" (Braun & Clarke, 2006, p. 79). The data analysis will be conducted through five phases.

The interviews were recorded by an audio recorder provided that the participant gave his/her consent to do so. The interview recordings were saved on a disc and are available for evaluation purposes. During the first phase data was transcribed and the researcher familiarised herself with the data by listening, reading and re-reading the data. During this process the researcher correspondingly organised the data by marking the behaviours mentioned by the participants during the interviews.

During the second phase the researcher assigned codes to behaviours relating to similar themes. The researcher attempted to not deliberately categorise the data into the competencies identified in Chapter 2. Additional codes were created for behaviours related to themes not yet identified. The coding was done in a systematic fashion across the entire dataset.

In phase three the personal constructs (themes) were identified by collating codes to potential themes by gathering all data to each potential theme (Braun & Clarke, 2006). Thematic analysis can occur at both the manifest and latent level. Analysis can therefore occur by merely counting the frequency with which explicit references are made to a certain theme or by inferring implicit references to the theme, or both (Joffe & Yardley, 2004). The constructs were organised to reflect the mental model of each participant. Personal constructs in the mental models of the participants are regarded as the basic unit of analysis (Easterby-Smith et al., 1996; Jankowicz, 2003).

In phase three the first-order themes were elicited and during phase four the data was again scrutinised and categorised in such a way that the first-order themes link to emerging second-order themes. A set of items exist for each performance domain (theme) which seems to accurately represent the performance dimension of medical practitioners. The researcher acknowledges that analysis was not a linear process of simply moving from one phase to the next. Instead, it was a more "recursive process, where movement is back and forth as needed, throughout the phases" (Braun & Clarke, 2006, p. 86).

The final phase involved interpreting the themes that emerged from the analysis, and corroborating the results thereof with relevant literature. The emerging themes were refined and clear names and definitions were assigned to the themes. The definitions were developed from the findings in this research as well as literature. Tuckett (2005) argue that engagement with the literature can enhance the analysis by sensitising one to more subtle features of the data.

The data analyses were performed by the researcher herself to ensure that confidentiality is at all times maintained.

3.9 Strategies to Ensure Quality Research

Braun and Clarke (2006, p. 95) note that "one of the criticisms of qualitative research from those outside the field is the opinion that 'anything goes'". Qualitative research can be perceived as 'airy fairy' (Labuschagne, 2003). The researcher should therefore ensure that rigor and validity is obtained through the data gathering process to provide an accurate or truthful scientific representation of the investigated phenomenon.

Quantitative research methods are mainly intended to test hypotheses; the researcher works deductively to derive empirically testable hypotheses and is outcome-orientated. In contrast the focus of qualitative research is the meaning of the phenomena under investigation, which is not a readily observable process. With qualitative research there is "attention to the social context in which events occur and have meaning, and there is an emphasis on understanding the social world from the point of view of the participants in it" (Labuschagne, 2003, p. 104)

In quantitative research the responses are standardised and systematic and easy to analyse (Labuschagne, 2003). Criteria determining whether quantitative research is good research include investigating the reliability, validity and bias of the data. In qualitative research the data is neither standardised nor systematic and analysis takes longer as responses are longer and more detailed (Labuschagne, 2003). Nevertheless, the detailed open responses

in qualitative data permits one to understand the world as seen by the respondent, who is the expert. Only through qualitative data gathering can one understand the perceptions, experiences and thoughts of participants in unpacking the investigated phenomena. As a result of the differences between the two research methods qualitative research cannot be subject to the same criteria as quantitative research. Consequently, qualitative research necessitates alternative methods of analysis that are applied rigorously to the data.

Schurink (2009, p. 794) asserts that “when judging the quality of qualitative research, the truthfulness of the study can only be justly validated if the reviewer/reader is informed and understands the epistemological and ontological position the researcher adopted”. As mentioned earlier in this study the constructivist ontology is adopted within the interpretivism research paradigm. Brinkmann (2007) distinguishes between epistemic and ethical goodness of qualitative research by referring to “the nature of knowledge” and “matters relating to the nature of the goodness and value”. In order to create good qualitative research, both epistemic and ethical goodness should be maintained.

The conventional criteria of good research include reliability, validity and objectivity (Brinkmann, 2007). Achieving this in qualitative research is more complex than in quantitative research. Fortunately criteria for conducting good qualitative research do exist (Brinkmann, 2007; Schurink, 2009)

In creating epistemic goodness in qualitative data the reliability and validity of qualitative data depend to a great extent on the “methodological skill, sensitivity and training of the evaluator” (Labuschagne, 2003, p. 101). Labuschagne (2003, p. 104) indicates that reliability for qualitative research focuses on “identifying and documenting recurrent accurate and consistent (homogeneos) or inconsistent (heterogeneous) features as patterns, themes, world views, and any other phenomena under study in similar or different human contexts”.

Achieving the criteria of reliability, validity and objectivity is generally less appropriate in qualitative research than in quantitative research, therefore Lincoln and Guba (as cited in Schurink, 2009) propose four criteria believed to reflect the asumptions of qualitative research more accurately. These criteria included credibility, transferability, dependability and confirmability.

Credibility refers to the extent to which the researcher provides an accurate and truthful account of the views and opinions of the participants. Credibility is identified as the most important criterion (Schurink, 2009). During this research study credibility was ensured through credulous listening, probing and laddering, and using different data gathering

techniques. Using both the RGT and CIT ensured that the medical practitioner behaviours were investigated from different positions provided fruitful research. The researcher attempted to refrain from making assumptions and interpretations during the interviews and focussed on capturing the participant's perceptions and beliefs as accurately as possible.

Transferability relates to whether the information can be transferred from a specific scenario to another. This criterion was met by ensuring rigour in selecting suitable research participants (Cohen & Crabtree, 2008). Participants have been selected through convenience sampling and snowball sampling, to ensure that participants' characteristics are relevant to the topic of the study. The selection criteria dictate the quality of research participants. All subject matter experts supervise medical practitioners and have a thorough understanding of the public health sector of South Africa.

Dependability concerns the rigour with which the study is performed. It therefore considers whether the research process is logical, well documented and audited (Schurink, 2009). Dependability is ensured through rigorous planning and a thorough and systematic research process, which includes a pilot interview to test the suitability and effectiveness of the interview technique.

The final criterion, confirmability, refers to the extent to which the research findings can be confirmed through the collected data (Guba & Lincoln, 2005). Therefore the question should be asked whether the researcher provided evidence that verifies the research findings and interpretations by means of auditing (Schurink, 2009). Confirmability was ensured by creating an internal audit trail of the research process, which can be traced to audit reporting and analysis. Internal auditing is performed by keeping records of all relevant and notable incidences and information of the research study. The participants' responses are reported as a means of verifying the research findings, and thus ensuring the confirmability of the study. Schurink (2009) indicates the auditing trail displays the interaction between the researcher and the participant in such a way that the research can be understood in terms of what was ascertained, and how it has been discovered.

Patton (2001) advocates the use of triangulation by stating "triangulation strengthens a study by combining methods. Triangulation is typically a strategy (test) for improving the validity and reliability of research or evaluation of findings (Golafshani, 2003). The researcher considered a focus group to discuss the findings of the research after the data analysis in an attempt to confirm the information. Unfortunately a focus group was not possible, but the researcher made the analysed data available to give participants the opportunity to clarify or add information. Each participant's analysed information was sent to them via email; four of

the seven participants responded to the email with comments to their data. The participants who responded made minor language changes, but they were satisfied that the data was accurately interpreted and categorised into the first-order themes.

In addition to specific criteria to create more accuracy in qualitative research, the researcher should also account for certain capabilities to create good research. Kvale, (as cited by Brinkmann, 2007, p. 137) asserts that the following capabilities are required for a qualitative researcher to create good research:

1. *Knowledgeable*: Has an extensive knowledge of the interview theme without attempting to shine with his or her knowledge.
2. *Structuring*: Introduces the purpose of the interview, outlines in passing and rounds off the interview in a structuring manner.
3. *Clear*: Poses clear, simple and short questions.
4. *Gentle*: Allows participants to finish what they are saying, etc.
5. *Sensitive*: Engages in active listening, trying to get a hold of the fine nuances.
6. *Open*: Hears which aspects of the interview topic are important for the participant.
7. *Steering*: Is persistently aware of what he or she wants to know more about.
8. *Critical*: Does not take everything at face value, but continually tests the reliability and validity of the participant's statements.
9. *Remembering*: Retains what was said earlier and perhaps asks later for elaboration.
10. *Interpreting*: Manages throughout to clarify and extend the meanings of the interviewee's statements, which may then be confirmed or disconfirmed by the interviewee.

In order to create quality and rigour in this research study the researcher maintained both epistemic and ethical principles of goodness. The researcher valued credibility, transferability, dependability and confirmability during the research process and focussed on the list capabilities that has been proposed by Kvale (as cited by Brinkmann, 2007). The ethical considerations will be discussed in detail in the following section.

3.10 Ethical Considerations

The purpose of reflecting on potential ethical risks associated with the proposed research as outlined in this proposal is to protect the dignity, rights, safety and well-being of the research participants involved in this study. Empirical behavioural research requires the active or passive involvement of people. That may result in the dignity, rights, safety and well-being of the research participants being compromised to some degree. The critical question is whether this compromise can be justified in terms of the purpose of the research. The

research as envisaged in the current study has a benevolent purpose as argued in the introduction of this proposal. The purpose is to contribute to the understanding of the medical practitioner performance construct. The critical question is therefore whether the costs that research participants have to incur balances with the benefits that accrue to society (Standard Operating Procedure, 2012).

All research participants had the right to voluntary decide whether they want to accept an invitation to participate in research. To make an informed decision as to whether they wanted to participate in the research the participant was informed on the objective and purpose of the research, what participation in the research will involve, how the research results will be disseminated and used, who the researchers are, what their affiliation is, where and how they can make further inquiries about the research if they wish to do so, what their rights as participants are and where they can obtain more information on their research rights (Standard Operating Procedure, 2012).

There were no serious potential risks or discomforts envisaged in this study. To protect the dignity, rights, safety and well-being of the research participants involved in this study, information on all participants was treated as confidentially. The contribution of the participants was primarily their expert opinions and perceptions on the competencies (and outcomes) that constitute medical practitioner performance. The qualitative data gathering was conducted in a safe environment and the information obtained was reported anonymously. Despite the fact that interviews were recorded, all information obtained from participants will remain confidential. Ensuring confidentiality hopefully set participants at ease to speak their minds freely in order to obtain the most accurate information regarding the subject. Although the responses of the subject matter experts (SME) have been quoted in the results section (Chapter 4) of the study, the identity of the SME's was not be revealed. Informed consent from all SME's who participated in the study was obtained, as well as institutional permission from University Stellenbosch to interview participants in the employ of Faculty of Medicine and Health Sciences. An application was submitted to the Western Cape Department of Health for institutional permission to interview medical practitioners from the public hospitals. Unfortunately, due to system errors and seeming organisational inefficiencies , and despite several follow-up emails and telephone calls, the application for institutional permission became so time-consuming that it was decided to abandon it and only use a sample of SME's who has a dual appointment at the University of Stellenbosch. The informed consent formulation indicated that the interview will be recorded and participants could decide whether their quotes should be reported anonymously or not in the dissertation. Most participants did not mind being mentioned as a participant in the research

study, but the researcher decided to keep all information anonymous and only refer to the participants as Participant 1, Participant 2, etc. as a small sample size was used in a fairly small district. By giving the participants the opportunity to peruse their utterances before it was published presented them with the opportunity to indicate whether certain examples are too specific and should rather not be disclosed as people might determine their identity

The researched ensured adherence to Annexure 12 of the Ethical Rules of Conduct for Practitioners Registered under the Health Professions Act (Act no. 56 of 1974) (Republic of South Africa, 2006). This section stipulate that it is required of a psychologist doing research to enter into an agreement with participants on the nature of the research, the participants' responsibilities as well as those of the researcher. The agreement in terms of which the research participant provides informed consent should meet the following requirements according to Annexure 12 (Republic of South Africa, 2006, p. 42):

> 89. (1) A psychologist shall use language that is reasonably understandable to the research participant concerned in obtaining his or her informed consent.
> (2) Informed consent referred to in sub rule (1) shall be appropriately documented, and in obtaining such consent the psychologist shall –
>
> (a) inform the participant of the nature of the research;
> (b) inform the participant that he or she is free to participate or decline to participate in or to withdraw from the research;
> (c) explain the foreseeable consequences of declining or withdrawing;
> (d) inform the participant of significant factors that may be expected to influence his or her willingness to participate (such as risks, discomfort, adverse effects or exceptions to the requirement of confidentiality);
> (e) explain any other matters about which the participant enquires;
> (f) when conducting research with a research participant such as a student or subordinate, take special care to protect such participant from the adverse consequences of declining or withdrawing from participation;
> (g) when research participation is a course requirement or opportunity for extra credit, give a participant the choice of equitable alternative activities; and
> (h) in the case of a person who is legally incapable of giving informed consent, nevertheless –

(i) provide an appropriate explanation;
(ii) obtain the participants assent; and
(iii) obtain appropriate permission from a person legally authorized to give such permission."

Informed consent was obtained from all research participants before the interviews commenced. Annexure 12 of the Ethical Rules of Conduct for Practitioners Registered under the Health Professions Act (Act no. 56 of 1974) (Republic of South Africa, 2006, p. 41) requires psychological researchers to obtain institutional permission from the organisation from which research participants will be solicited:

"A psychologist shall –

(a) obtain written approval from the host institution or organisation concerned prior to conducting research;
(b) provide the host institution or organisation with accurate information about his or her research proposals; and
(c) conduct the research in accordance with the research protocol approved by the institution or organisation concerned."

Annexure 12 of the Ethical Rules of Conduct for Practitioners Registered under the Health Professions Act (Act no. 56 of 1974) (Republic of South Africa, 2006, p. 41) requires psychological researchers to disclose confidential information under the following circumstances:

"A psychologist may disclose confidential information –

(a) only with the permission of the client concerned;
(b) when permitted by law to do so for a legitimate purpose, such as providing a client with the professional services required;
(c) to appropriate professionals and then for strictly professional purposes only;
(d) to protect a client or other persons from harm; or
(e) to obtain payment for a psychological service, in which instance disclosure is limited to the minimum necessary to achieve that purpose."

Participation in this study had no direct benefit to the individual participant. This study however is a step towards in determining what constitutes successful medical practitioner

behaviour and this knowledge ought to be used in future for medical practitioner recruitment and selection, development and performance management. In the broader context the promotion of medical practitioner development and performance contributes to the health and well-being of all patients leading to healthier society.

Approval for ethical clearance of the proposed research study has been received from the Research Ethics Committee Human Research (Humanities) of Stellenbosch University.

3.11 Development of the South African Medical Practitioner Competency Questionnaire (SAMPCQ)

The SAMPCQ was developed to obtain multi-rater assessments of the latent behavioural variables in the partial South African medical practitioner's competency model as to (a) enable the eventual development and empirical testing of a comprehensive medical practitioner competency structural model and (b) to offer an instrument that can provide formative feedback on medical practitioner performance.

The final battery of measuring instruments – the South African Medical Practitioner Performance Assessment Suite (SAMPPAS) – will include the SAMPCQ which assesses the level of competence that medical practitioners achieve on the latent competencies that constitute performance, but also the Medical Practitioner Outcome Questionnaire (MPOQ) to assess the level of success that medical practitioners achieve on the latent outcomes they are held accountable for as well as an array of scales which assess medical practitioners' standing on the latent personal attributes required to achieve competence on the latent competencies. The SAMPCQ and the SAMPOQ will be used to obtain multi-rater assessments on the job performance of the focal medical practitioner. Given the solitary nature of the practice of medical practitioners the intention is to use the SAMPCQ (and the SAMPOQ) for 180° (and not 360°) performance evaluations. The two instruments will consequently be available in a self-assessment form, and in an other-assessment form. The medical practitioner will complete the self-assessment form on his/her personal perception of his/her performance. The other-assessment form is to be completed by colleagues, such as nurses and other medical staff, as well as by selected patients. The number of raters in each category will be determined in future.

The SAMPCQ is currently presented in only a self-assessment form. The measuring instrument uses a 5-point Likert type scale to record the responses of respondents to the items. This scale is used to measure the relative frequency with which the medical practitioner displayed the behaviour described in the item during the assessment period.

The items comprising each subscale describe behavioural denotations of the latent behavioural performance dimensions. The intention is to obtain a set of items for each subscale that provides a relatively pure expression (via the respondent's behavioural response to it) of the latent performance dimension it reflects. Since human behaviour is complexly determined by numerous latent variables no behaviour will reflect only a single underlying latent variable. Ideally each item in each subscale would reflect the common latent performance dimension of interest in a relatively uncontaminated manner where the systematic measurement error influences would share very little common variance. Items serve as a subscale for each latent performance dimension and consequently are considered essentially uni-dimensional if the inter-item partial correlations between items, controlling for the common underlying factor, approach zero.

The items of the SAMPCQ were generated by contrasting the behaviour of good and neutral/poor medical practitioner by means of the repertory grid and identifying critical behavioural incidents associated with a high and a low standing on the latent competency in question. The constitutive definition of each latent competency was used to evaluate the content validity of each critical behavioural incident. In the questionnaire the critical incidents were transcribed as short, specific statements to which respondents have to respond by indicating on a 5-point rating scale the relative frequency with which the behaviour described in the incident had been displayed by the medical practitioner during the indicated rating period. The five scale points were anchored with the following descriptions: *rarely* (1), *once in a while* (2), *sometimes* (3), *fairly often* (4) and *fairly frequent* (5). Provision was also made for a *not observable* response that was coded as 0. The latter responses were treated as user-defined missing values. Both items that illustrate or represent a high and low standing on the latent performance dimension were included in the SAMPCQ.

The information obtained from the (1) literature review and (2) interviews with medical practitioners were used to develop the final revised partial medical practitioner competency model.

CHAPTER 4
RESEARCH RESULTS

4.1 Introduction

The qualitative methodology used to develop insight in the medical practitioner competencies of South African medical practitioners and to generate items for the South African Medical Practitioner Competency Questionnaire (SAMPCQ) was presented in Chapter 3. The expected results of the endeavour are that the SME's will vindicate the latent competencies and outcomes derived from the literature study and that sufficient and accurate behavioural incidents will be generated to allow the derivation of a sufficient number of items for the experimental version of the SAMPCQ that will be administered to the validation sample in a subsequent research study. It is expected that participants will share both positive and negative representations of the identified latent competencies. From the literature and interviews a partial medical practitioner competency model will be developed.

4.2 Emerging Themes from the Data

As described in Chapter 3, data analysis was done by means of organising the responses of the interview participants to discover patterns, themes, forms and qualities (Labuschagne, 2003). This section provides an oversight of each candidate and categorises his or her responses into themes.

The researcher analysed the data from the interview holistically and did not separate the Repertory Grid Technique (RGT) and Critical Incident Technique (CIT) data before analysing it. The researcher attempted to thematically analyse the information without deliberately ordering the data into the competencies that were identified from literature. This was done to ensure that the data was analysed in terms of how the participant presented it and not in terms of how it was understood from literature. Consequently, the risk of eliminating important competencies or including irrelevant competencies was minimised.

In the next section (Tables 4.1 – 4.7) the data will be ordered according to a theme, the description of the theme as it expressed itself in the utterances of each participant, and supporting quotes (behavioural anchors) underlying the theme. Identified behavioural denotations which constitute negative manifestations of the underlying theme will be indicated as such by the placement of a negative sign (-) at the end of the sentence. The reader should note that English was not the first language for most of the medical practitioners who participated in the study. The supporting quotes are quoted directly from the transcribed interviews without any language editing. In some instances the researcher

has added clarifying comments in brackets. Some of the participant quotes were mentioned more than once as it could be argued that the quotes were relevant for multiple themes.

4.2.1 Participant 1

The first participant presented as friendly and willing to assist. He is a white male with 13 years of experience in the public healthcare sector of South Africa. At times he came across concerned that he does not provide sufficient or required information. The interviewer managed his concern by saying he can relax and thanking him for his contribution.

He was strikingly passionate about patients and he values hearing the patients' story by really listening to them and treating them as human beings rather than 'files'. Table 4.1 presents the themes that emanated from the constructs elicited during the interview with Participant 1.

Table 4.1

Themes Stemming from Personal Constructs: Participant 1

No.	Themes from personal constructs	Description	Supporting quotes
1	*Patient-centeredness*	Treating the patient as a person and not as a task to be completed. Showing understanding and interest in the person and let the patient tell his/her story. The patient's story includes his/her underlying concerns, his/her context, and his/her expectation of the consultation.	"…will not compromise on being very person centred in their interactions with patients." "…focusing on the patient story so he will be taking longer. He will still be able to prioritise, so he will be safe in terms of the care so that the ones who are acutely ill will be seen first and those who are not acutely ill will wait a little bit longer, by the time they are seen by that doctor they will have a positive experience." "It is that differentiation between the task at hand, performing a technical procedure or technical consultation versus actually listening to the patient's story and their experience of the illness" "…allow the patient in front of you for them to know their doctor is seeing them as a person trying to understand their side of whatever the issue is and how that effects them in terms of their context and life, ability to work, how it effects their ability to be a community member." "I think there would probably be more of a dialogue here with two directional questions." "Allow patient to speak and to tell their version of the story." "…establishing rapport and having a level of trust relationship so that the patient are able to voice that underlying concern or fear" "…getting the task done so especially if it is a clinic, or a casualty, he would see the list of names, or number of files, waiting to be seen, and he would just go through it in the most efficient way..." (-)

Table 4.1 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
1	*Patient-centeredness* (continued)		"…will be very interested on the patient story and focussing on establishing good report." "…establishing that trust in the first few seconds; being with a friendly smile or a touch on the shoulder. Having that complete empathy and also what he does very well, he will not dive into the issue. He will allow a moment to have some superficial engagement and just a bit of conversation. Even if it is in a busy environment he will still do that." "…someone who is listening and understanding." "…okay we are going to tackle it together now." "He may be more of a listening style, but not compromising… not like there is a loss of control in the consultation, but it is a much more engaging and inviting approach". "It was amazing, how he read a patients story and how he read a patient." "He had very nice way of engaging with a patient so that initial rapport was excellent at establishing it." "He would greet a patient friendly and ask them how they are doing and where they are from." "…show that he had this caring attitude." "He was just so friendly and open and engaging in a way but without being obtrusive." "…you could feel he was trying to understand who this person is and that person felt really appreciated, I think." "He took her hands and looked her in the eyes and said 'I understand and I can see that you are depressed; you must be very sad'". "He looked her in the eyes and he really said it in such a way there was absolutely no judgement." "She didn't mention anything about being sad or so, he just picked it up from her body language." "I have unfortunately witnessed scenarios where patients were judged on being non-South African." (-) "He was immediately judging the person from his origin and not focusing at all on the concern of the family member that there is maybe an infectious disease." (-)
2	*Rule-following*	Knowing when a rule or protocol can be slightly bent to achieve greater patient health outcomes.	"This person would probably be more protocol bound." (-) "This one will be adapting what they know of the protocol." "…more following the rules, almost black and white approach, and ticking the boxes." (-)

Table 4.1 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
2	*Rule-following*	Knowing when a rule or protocol can be slightly bent to achieve greater patient health outcomes.	"This person would probably be more protocol bound." (-) "This one will be adapting what they know of the protocol." "…more following the rules, almost black and white approach, and ticking the boxes." (-)
3	*Clinical reasoning*	Analysing verbal and non-verbal indications from the patient and use evidence based guidelines and protocols together with experience to confidently make a diagnosis.	"…will probably be more autonomic as they are more experienced." "I am sure they will be evidence based, but they will probably … base their clinical behaviour on their own experience." "…would probably be thinking of consulting with someone at the next level of care. Behaviour will be more consultative." (-) "He was an excellent diagnostician as he was able to pick up the queues from the person's behaviour and body language and fit everything together." "Juggling own experience and latest evidence based guidelines and protocols."
4	*Innovation*	Questioning and adapting the conventional way of doing things, by changing protocols and the way things have always been done, as they see fit, to ensure better health outcomes.	"…they know about the protocol, they may decide to follow it, or based on their own experience decide to adapt the protocol for that specific patient." "…it is more adaptive from what is in front of them versus what they know could be wrong what they know is possible within the environment of the health system." "…who they will refer will be more appropriate. If they refer a patient to the next level of care, because of either the lack of resources or the patient problem, my understanding would be that they would probably have tailored the best evidence to their knowledge to the specific patient so the referral would be more appropriate." "…sometimes it happens that the patient is referred because protocol says... but for that patient it may not have been necessary." (-) "He actually drew up a template for all the other doctors he knew is not good at writing to sort of capture it and even do it on a computer base."

Table 4.1 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
5	*Emotional regulation*	Being able to control and express emotions at an appropriate time and in an appropriate environment, and not letting emotions influence one's ability to work, but to move on past the emotional aspect by attending to the patient's concern.	"They are more stable." "I think definitely emotional control, but also expressing emotions. In their internal environment they may also be experiencing the same emotions, but they don't express it in a similar (negative) way." "These two will probably be experiencing the same frustrations, but will be able to contain it within a public environment, or where they interact with patients, or other staff. In a smaller group, where it is more of a private space, they will be able to express the same emotions, but with more control. They are able to put the lid on there in that environment, get through a difficult job, and afterwards, if there is the opportunity, they will speak of it." "… "With everyone the factors are the same. Posing the same challenges, but the way how he responds to those challenges and his ability to perform as a medical practitioner is different from these two, who is just more stable." "This one will explode, and often in a public space saying negative things about either a manager, the patient self, or the system deficiency in front of patients. Sometimes it causes issues and there have been complaints in the past. Like a quick release of negative emotions by verbalising it without any thought to it." (-) "The way he expresses himself is more... not light-hearted, but more getting on with it, telling a joke of it especially during a difficult scenario or case. In a way applying humour. A trait or behaviour of having humour and seeing the lighter side of very challenging situation is a nice diffuser. It is done in a professional way so it is not as if he laughs in front of people about their illness." "It speaks to how he is almost, more attuned to the needs of his colleagues, which I think this colleague's behaviour helped me more as a co-worker to know that there is empathy and almost a shared understanding of what each of us is going through in an environment where we cannot necessarily voice it in our working environment." "Not get bogged down by the unfairness of the situation and frustration of the context, and in a way not ignoring it, but just filtering it out to allow them to just move past the emotional aspect." "They are not blunted, but are able to filter which emotions to act on and then if their emotions will actually help them to do their job, they obviously will experience that." "…their emotional reaction to the problem or situation prevents them from actually doing the job." (-)

Table 4.1 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
6	*Medical professionalism*	Treating all patients fair and without bias regardless of their background or whether or not they came to see the medical practitioner for appropriate reasons.	"In a way he also would be frustrated with it and would engage with the patient about their inappropriateness. In one scenario he insinuated that the patient must pay for the ambulance." (-) "…they have lost their pose so they are unable to continue with the job at hand and this worsens the scenario." (-) "…taking whatever is coming and saying ok how do we approach that sort of, to immediately shift gears, and engage with the issue. But in a very professional way." "It is okay to mention whatever you (the patient) need to say and that doctor wouldn't think differently of you, or wouldn't necessarily express feeling differently from you, and will still continue with the engagement and still be willing to help." "He would try to engage with you and try to at least understand your problem without any bias." "I have unfortunately witnessed scenarios where patients were judged on being non-South African…He was immediately judging the person from his origin and not focusing at all on the concern of the family member that there is maybe an infectious disease." (-)
7	*Coping with pressure*	Remaining calm during high pressure scenarios, applying appropriate techniques to alleviate pressure and still seeing patients as people and not as 'files' despite the pressure..	"…going through the numbers and more focussing on getting the job done." (-) "…I think their reference would then be referring to the files." (-) "When the pressure arises they will be, not ruthless but focussed on getting the job done." (-) "Regardless of what the patient story is they will get the job done" "The patient will be seen, but it can probably be seen as very blunt, but almost like a... just very 'saaklik' (transactional)." (-) "He becomes very task orientated I don't think its necessarily the best option, but he sort of disregards whatever is causing the issue at the moment, puts it a side and focus on helping the people, just getting… seeing the patients and getting it done." (-) "He tries to lighten up or brighten the situation and cause some people to laugh and there is a release of tension and the flow continues." "Applying humour in a positive way." "Anticipating difficult scenarios." "…we weren't completely overloaded or overwhelmed with the scenario." "…there was no shouting, there was no screaming there was no…. it was like pleasant conversation."

Table 4.1 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
8	*Communication*	Clearly articulating the message to the target audience and checking for understanding to ensure the message is conveyed accurately.	"…there were clear conversations and commands between the colleagues." "…there was no shouting, there was no screaming there was no…. it was like pleasant conversation." "Sometimes it is not quite clear what is this person expecting is to help the patient with and they may have seen the patient at the clinic or at one of the GP practices and they refer the patient to us." (-) "…you should actually explain (to the patient) that I am referring you to so and so for this reason, and ask the patient is he okay with that."
9	*Teamwork*	Knowing your team, compromising other medical professionals, knowing everybody's capabilities and utilising it most effectively to achieve a common goal.	"We were satisfied that this team is very strong in their proficiencies." "A doctor and nurse went to each patient and if necessary one of the colleagues helped the other one." "We also knew each other and had good relationships and a good relationship with the nursing staff, so it was a sense of cohesion that we had." "Afterwards when we had a bit of a debrief we felt proud of us as a team of how we managed that difficult scenario."
10	*Medical/health advocacy*	Taking a community perspective on health, to notice poor health patterns presenting in patients, taking the necessary steps to investigate the trend further and taking appropriate action.	"A number of children that was admitted with advanced TB and he noted and picked up that it came from a certain farm area that they lived." "He was basically just being aware of the patients coming in. Maintaining the patients with the community perspective. Picking up that the children are dying and children not doing well were coming from the same area and then engaging with the community based services." "An ordinary effort to really find the source and primary contact." "In a rural environment we are probably more privileged. We are more able to have that community perspective as we share the same environment as our community."

Table 4.1 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
11	*Information gathering*	Asking open questions to understand the patient, explaining the condition to the patient and providing comprehensive and legible clinical notes and referral letters.	"…medical record keeping which lead mainly to issues of inefficient handwriting." (-) "The initial doctor has not captured the information, he may have asked for the information, but he has not captured it." (-) "You should actually look at their road to health chart, look at their development milestones, look at their nutrition and prenatal history, were they breastfed, what is their mother's HIV status, is there any TB contact… Also look at their weight and heights and to make sure that there are no signs of malnutrition." "He got a very neat handwriting and that was an admirable trait to have. He drew a lot of these forms up to help the rest of us and those who are not as strong in this regard." "…asking open ended questions, focussing and asking patients of their understanding of their own illness, asking them about their context, about their work, about their employment history, asking the patient what do they think is going on. How do you think we can help you today?" "So certain clarifying closed questions are obviously needed, but I think if the approach is like that where the firstly establish rapport with the patient by allowing the patient to tell their story without being interrupted, and that there is also an expressed interest to find out what the patient's idea is." "…the referral letters are very incomplete or sparse in detail. I don't know if I can make any deduction from it; so say it is not necessarily poor information gathering, but rather the data capturing which is certainly below standard… There was not much of engagement and if there was engagement you would have expected a more thorough letter." (-) "…asking them whether they would like an operation." "You explain to them what the pro's and con's and the full reformed consent process is."

Participant 1 (personal communication, July 22, 2015)

4.2.2 Participant 2

Participant 2 is a white male who practices as a family physician and has a passion in teaching and development. Due to some urgent matters that he had to attend to, we had to start somewhat later than scheduled, and we (unfortunately) only had 45 minutes to an hours' time for the interview before his next appointment started.

Like Participant 1, he also emphasised the importance of *patient-centeredness* and giving the patient the opportunity to speak and tell their 'story'. He was observed as a humble man, who found it less easy to describe the negative than the positive of scenarios. He suggested another competency, *self-care*, which was not included in the competency model. *Self-care* includes the importance of medical practitioners having a life outside of the workplace and also to have a work-life balance. Table 4.2 illustrates the themes from the constructs elicited during the interview with Participant 2.

Table 4.2

Themes Stemming from Personal Constructs: Participant 2

No.	Themes from personal constructs	Description	Supporting quotes
1	*Patient-centeredness*	Understanding how the patient is experiencing the disease and listen to the patient's side of the story, even if the medical practitioner is under pressure.	"They are very patient-orientated. They really take into account the patient's experience of the disease." "They are patient-centred." "I think it is very important to be patient-centered, even if you are busy; it is very important to tune in to the patient's experience of their disease and their expectations." "They would try to really understand why... understand the patient's side of the story. What happened that they (the patient) did not come (to the hospital) or why didn't they take the medication. I think that refers to the patient-centeredness." "…be tuned into the patient's experience of the disease.
2	*Patient management*	Holding the patient accountable to manage and adhere to their part of the treatment plan and indicating the boundaries of what they can offer.	"They are also very aware of the patient's responsibility in managing their disease." "…but they are also aware of the patient's side of the consultation." "…will set very clear boundaries of when they feel that the patient's is not, from their side, cooperating or bringing their end of the bargain." "They will make it clear to the patient what the expectations are and if the patient is not cooperating they will make that clear to that patient what they think the boundaries are of what they can offer."

Table 4.2 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
3	*Task orientation*	Working effectively and efficiently by making clear plans and requiring clear patient outcomes, whilst still being patient-centered.	"They are very task orientated; they are very efficient in completing their work." "He would make a very clear plan of what he should do and would be very aware of time constraints, so he works very fast, effectively, but fast." "They would be very patient-centered, but they would be very aware of the time limitation and very aware that there are lots of patients waiting…" "… and he does not have a lot of time available. I would expect that he would work very efficiently; probably not spent that much time per patient." "Both would want a very clear outcome when they are finished with a patient."
4	*Self-efficacy*	Confidently giving opinions and believing in one's abilities; willing to consult colleagues should they be uncertain.	"…when they make a decision or give an opinion they are quite confident in what they say." "They have faith in their own abilities." "…there must be a balance, there must be a basic confidence in your skills and your abilities as a clinician to diagnose, but there is also a danger of over confidence." "The doctor should be confident in what he knows and can do, but also be clear... when a situation falls out of his scope and experience as he perceives it and should be then willing or know that he should ask for advice."
5	*Self-awareness*	Knowing his or her own competence, the effect of different situations on his or her emotions, and when one requires help.	"…when a situation falls out of his scope and experience as he perceives it and should be then willing or know that he should ask for advice." "I think a big part of that is self-awareness and being aware on one's own emotions. The effect patient and different situations have on you. And then as you say I think when one is aware of that then how you show up then in your profession and within you relations with your colleagues as you say is more beneficial. I think one can also say being aware of when one needs help, when one needs more with professionalism."

Table 4.2 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
6	*Medical/health advocacy*	Standing up and initiating action against any factors that threaten patient/community health.	"He is very aware of the whole community; so do not only work in the hospital he goes out to the clinics. So he would be very aware of the socio economic factors that influence patients' health..." "He is very involved with community projects; he is very, in that sense, proactive and would be a very clear advocate for the patients. He is also involved with other departments, other than health, like education, police, and social care. He is a rural community orientated man." "So they do not have that broader perspective apart from the individual patient how can I improve the health of the community." (-) "I think it is really…the patient advocate. When other doctors or the system disadvantages the patient, the doctor has an extremely important role to speak up for the patient." "Let's say a shortage of essential medicine. One could very easily become quite indifferent to it, but the advocate would then really start making a noise. Advocating and say this is not good enough and starting to hold other people accountable." "It is also social responsibility." "…start advocating and say that lack of basic infrastructure is affecting the life of my patients."
7	*Medical professionalism*	Treating patients in a polite and respectful way, regardless of the medical practitioner's frustrations with the patient.	"This doctor he is often in a mode of blaming the patient and becoming frustrated and impatient with patient when her perception is that they do not bring their side of the plan she makes for them, or when they (patients) come at a time when she thinks is inappropriate for them to come to casualty." (-) "She would sometimes shout at them and make it very clear to them that she is irritated with them, because they come only later to the doctor with a complaint that has been there for two weeks." (-) "She would very clearly express her dissatisfaction and anger about them coming at that time of night." (-) "…they might also express the fact that the patient behaviour was from their perception inappropriate. They would try to understand what the context is and why they (patients) did not come. Still negotiate with the patient in a more polite way." "So this doctor would make a point of at every patient making eye contact, greeting them, before continuing with the handover. So a very clear effort to acknowledge the patient." "The doctor would, in front of the patient, very clearly criticise the patient, say something like 'this patient never takes their medication and just come in every second day into casualty'." (-)

Table 4.2 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
8	*Business reasoning*	Displaying a business orientation and organising work in such a manner that systems and resources are applied in the most effective way possible.	"…administrative responsibility of organising the work schedule of doctors that work under them. Also with clear view in how to organise this service, how can they administratively run a service to give a better service to the patient, how can they use the available resources to give best care to the patient with limited resources that are so they have a bigger picture of we have to deliver a service and how best can we do it."
9	*Communication*	Listening to a patient's story, without interrupting, knowing when to ask open and when to ask closed questions and regularly checking whether the patient understands what the medical practitioner is communicating.	"The doctor listening to the patient's complaint, or their story without interrupting." "They very quickly interrupt the patient and asked closed questions, and it becomes a question and answer session rather than the patient telling their story." (-) "…in our context where the patient is often illiterate, if you ask a leading question, like are you coughing up blood, some patient will decline to say yes, even though the answer is not that way. Where there is a cultural difference, where there is a different language being used, the patient might not be so sure of understanding the question and they would say yes, where the answer is actually no. There is a place where you, for example, think the patient has got TB (tuberculosis) then you must ask specific questions around TB." "To check the patient's understanding is very important and that I think is the difference between the good and poorer communicator."
10	*Information gathering*	Initiating the conversation by tuning into the patient's agenda by initially asking open questions and then subsequently asking more specific questions; negotiating the management plan with the patient.	"So would specifically ask patient questions like 'what do you think is wrong with you, what are you worried about, and what you expect from us today'. In that sense tuning into the patients agenda." "…keep questions open for a while and then when you feel the patient's story is dried up then you can be more specific with your questions." "If one gives the opportunity to the patient to voice that the patient feels that much more satisfied, as they feel the doctor addressed their needs. Also allow doctor to tailor their advice and management plan to where the patient is and not just generic." "…the plan is then negotiated between doctor and patient rather than the doctor just say that you should do this and that. Now the doctor understand where the patient is and that plan can be mutually negotiated."

Table 4.2 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
11	*Coping with pressure*	Always being prepared for an emergency situation, prioritising activities, following the protocol of what to do next, maintaining equanimity, and asking for assistance.	"…see what the main priorities are at that moment." "…do the essential things at that moment that would really... that is most important to save that person's life." "They would quickly realise that they cannot do it on their own." "…in that acute situation it would be not getting flustered when things are not there." "A skill that comes before the emergency is there… it is preparing for an emergency. I think the good doctor will realise at some stage that there will be an emergency and make sure that the equipment is available and at hand." "I think the one thing would be to not just try and cope on his own when he could ask for other people to help him." "…not skilled at following the right protocols. There is a very clear protocol or guideline what you should do first. So they won't follow the protocol." (-) "There is also equanimity, which is a calmness or lack of calmness, and getting flustered and starting to shout at other people and things are not there; everyone then get uptight and flustered." (-)
12	*Leadership*	Taking the lead and delegating activities to team members in a calm way.	"They would skilfully involve the other people that can assist, in the sense that they would in a calm way say 'you do this, you must do this, and then sort of be the team leader'." "I mean one can't be a good doctor without developing good leadership qualities."
13	*Teamwork*	Working together with other health professionals and asking for help.	"…it is essentially a team…teamwork. Health is teamwork." "It is also teamwork because you would delegate that to others to make sure that they actually fulfil that function." "I think the one thing would be to not just try and cope on his own, when he could ask for other people to help him."
14	*Innovation*	Using the resources you have, and applying it in the most appropriate way for the situation.	"But improvising with what there is and making the best."

Table 4.2 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
15	*Self-Care*	Taking care of themselves in terms of their physical and emotional wellness; having something to live for that excludes work.	"I think caring for themselves." "…a work life balance. I think that means intimate relationships that could be partners, family, and children. Another thing would be health. That would be to rest and diet, I would like to put exercise in, and I think also interests outside of medicine." "In a very broad sense I would say spirituality, that could be that It is not a specific religion, but it could also mean… I think it is around the meaning of life."
16	*Self-actualisation*	Promoting one's own personal growth and maturity.	"…is also about one's personal growth of becoming a more mature person and what done one do to enhance that and to promote your own personal growth and maturity. I mean who you are as a doctor is just as important as the knowledge with."

Participant 2 (personal communication, July 23, 2015)

4.2.3 Participant 3

Participant 3 is a white male. He was observed as patient-orientated, but also displayed a focus on efficiency in the context of seeing and managing a hospital as a business. Our consultation session was also only about an hour due to other obligations he had to attend to. However, a few weeks later we continued the interview by means of a telephonic discussion. He found it easy to give clear and relevant examples. Table 4.3 tabulates the themes that originated from the constructs elicited during the interview with Participant 3.

Table 4.3

Themes Stemming from Personal Constructs: Participant 3

No.	Themes from personal constructs	Description	Supporting quotes
1	*Clinical reasoning*	Accurately and confidently diagnosing through theorising and investigation of the phenomenon, coming to accurate clinical conclusions with confidence, even though the diagnosis cannot be confirmed with a scientific test.	"…they are able to recognise clinical problems easily; they will not miss certain diagnosis as number 1 would." "He was also responsible and was able to problem solve, he was rational when it came to making clinical decisions. Where some other doctors feel overwhelmed and their level of clinical decisions deteriorates and they start taking shortcuts." "…he had to make diagnoses on clinical skills. He could not rely on a test or an x-ray to give a definitive diagnosis. When you make a clinical diagnosis there is a measure of uncertainty and he could not handle that uncertainty." (-) "They had excellent clinical reasoning. They could reason out the problem and make a good clinical conclusion, or an accurate assessment." "You have to be able to recognise is this a serious headache that needs a scan or is this a simple headache caused by a neck muscle spasm, and if you've got good clinical reasoning skills you can sort of ask the right questions, get the history and categorise this problem in your head; this is very urgent or this is kindly severe or this is very simple. Clinical reasoning skills help you to do that." "You need to be able to be confident in making that assessment." "…as the person walks in to the door you start with theories in your mind. If person is sweating and short of breath and pale you can say 'this looks serious; this may be a cancer or a severe infection or something is going on'. The smiling person that is chirpy and up and about you might think this person is here for a sick letter. And then as you go on and ask questions your theory of what the problem is changes constantly and it you have a structured way you can narrow it down, reasonably quickly and come to an assessment."

Table 4.3 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
2	*Efficiency*	Effectively using resources and working at a fast pace with minimal errors.	"They are more efficient, they use the resources more efficiently; so they would ask less blood tests and more appropriate blood tests on the patients." "She is a very efficient doctor meaning that she can see a lot of patients with few errors." "Really work slow, very slow, and there is coping mechanisms with patient overload or busy clinic that is really not there, that makes you feel overwhelmed and decompensated. When I say decompensate I mean their slow work just becomes even more slow. They become so stressed that they are frequently away from work." (-) "Nr. 5 could not accept uncertainty at all. In a sense he was too thorough so for a very simple problem you spend 5 minutes on he would take 30 to 60 minutes." (-) "So where Nr. 2 was very much conscious about patients' waiting time and helping them quickly in order to decrease waiting times and the frustrations of patients, the others won't." "Instead of solving the clinical problem within a reasonable time he took far too long so that clogged the system. Patients had to wait much longer, not efficient use of resources of consultant time, and other peoples work got interrupted because he is constantly calling." (-)
3	*Coping with pressure*	Remaining calm and collected by regulating one's emotions, prioritising what needs to be done first, adapting one's approach, being aware of one's limitations and asking for help.	"…because of his lack of experience he was a bit more stressed and worried as a doctor and sometimes his health suffered because of that." (-) "When he had to function as a doctor the additional trauma of the frustrating system and issues happening at work was just too much and he went into drug abuse. So he was in no way capable to manage the emotional trauma of patient and all the stress that goes with the work." (-) "They become so stressed that they are frequently away from work." (-) "He also had a drug habit, so he will stay 3-4 days from work and yeah… he didn't indicate any remorse for letting his colleagues down." (-) "…you lose compassion for patients and you lose interest in trying to understand the person and understanding their behaviour." (-) "…the effective medical practitioner was able to absorb the pressure to a certain extent. So they have the capacity to increase their level of efficiency and to continue working just staying focus on what they can do now and taking it step by step instead of being overwhelmed. That is also having the ability to be able to prioritise and then to be able to adjust your practice where you be spending say half an hour with a patient with complaints of depression. You adjust your practice and say well I can spend 10 min. I am sorry but we have to do a follow up some other time and the person who does not have that skill still spent half an hour on that patient in the midst of a trauma event."

Table 4.3 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
3	*Coping with pressure* (continued)		"…just pausing what you are doing instead of going on and causing more damage. Just take a pause and sometimes talk out loud 'let's think about this' and ask some good questions... 'let's just rethink what is the next step'" "…it is useful to know your limitations and ask another colleague to give an opinion." "…get yourself to do the basics. Remain calm and stick to the basics of the procedure then you should be fine." "If you do not have colleague close to you, you can get specialist assistance just a phone call away…the worst thing you can do when you are severely stressed, is to isolate yourself, but to talk about it and to say 'ah I am not coping help-help'; that is probably the best in theatre…" "…Just remain focused instead of allowing stress to overwhelm you and panic. So if you can remain calm if there are difficult circumstances also going back a few steps just to get a better perspective that helps to solve the problem."
4	*Deciding and initiating action*	Considering all the information and considering the implications of the decision before making a decision.	"…he was rational when it came to making clinical decisions." "He needs to consider the possible outcomes for making certain decision." "…weigh up the implications of that decision and how that decision will affect the system, especially in a resource limited system." "He needs to consider the possible outcomes for making certain decision. " "…weigh up the implications of that decision and how that decision will affect the system, especially in a resource limited system."
5	*Self-efficacy*	Displaying confidence in your knowledge, skills and abilities.	"He constantly phoned our referral centres doctors to the extent that they complained that he is driving them mad, because of all his phone calls." (-) "…it was basically uncertainty as he had to make diagnoses on clinical skills. He could not rely on a test or an x-ray to give a definitive diagnosis… when you make a clinical diagnosis there is a measure of uncertainty and he could not handle that uncertainty." (-) "They are confident about their diagnosis so they can work quickly and efficiently without worrying too much…" "Nr 5 worried a lot whether he is correct in his diagnosis." "…in a sense he was overwhelmed by all the possibilities and the more he considered all the possibilities the more stressed he became, and uncertain." (-) "We had a doctor that when he was on call he was not sure about his assessments…It is a lack of confidence and also anxiety. It is fear of making a mistake. Not willing to take a risk." (-) "You need to be able to be confident in making that assessment."

Table 4.3 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
6	*Self-care*	Sleeping enough, and regularly talking to someone about what you experience.	"…but I think doctors should also learn how to debrief and be able to talk to someone about what they experience." "…sleep deprivation is very similar to alcohol intake; the behaviour of people, it is like somebody under the influence of alcohol after so much sleep." (-)
7	*Emotional regulation*	Controlling your emotions.	"This person was emotionally unstable. Something would happen at work and will start crying and… for half an hour and he just could not function." (-) "1 and 3 were emotionally very stable. They could work under stress and cope and they could maintain a good level of clinical practice." "I think anger management and emotional intelligence and even organisational intelligence is an area which is totally overlooked in equipping doctors. Students walk out of medical school with an idea that they are going to practice medicine and they think that they are going to be treating patients, but it is actually working in an environment under pressure and being able interact appropriately with colleagues... They are currently looking at the collaborator role of the graduate attributes which is a step in the right direction to influence it." "For some people it will be an issue of how to deal with your anger. If you allow it to go wild it will damage relationships, and your functioning, and the functioning of your facility."
8	*Communication*	Explaining information using appropriate language or visual presentations, inviting the patient to participate by asking open-ended questions, checking for understanding and listening to what the patient has to say.	"I would observe him to ask open questions and allowing the patient to speak and to explain things… that was good communication. Also engaging with the patient in a fun way and making the interaction also nice and being somewhat light-hearted to help the patient relax." "…to feel safe in presence of the doctor; often they feel intimidated in the specific environment and they are unsure of what is going to happen. So if you can get them to trust you and to see that you are actually there to help them it is just so much better for future management of the patient and cooperation of the patient. Especially if you are going to give chronic medicine; if you are not going to work on the relationship the patient is just going to throw away the medicine as soon as the feel a bit better." "It is important to explain it in terms that they can understand. It is no help if you use medical jargon to somebody who got no education and the same if you get somebody with tertiary education; you need to speak in an appropriate language that they would understand. It is quite beneficial to use diagrams. If you do not have diagrams or illustrations to show it, then draw. Some people just take in information much easier if it is visual." "I draw a little man with blood vessels and organs and I demonstrate what a blood vessel looks like what happens if the blood sugar is high for long periods and it damages the blood vessel."

Table 4.3 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
8	*Communication* (continued)		"It (visual presentation) helps for everybody, educated or uneducated it helps them to grasp it better. And to merely make sure that a person understands after the explanation. So ask them 'tell me what you are going to tell your family members?' You then get the idea whether they understood what you said. And often they still would not understand what you have said and that gives you another opportunity to explain it a bit better. It is often important, especially when it comes to a diagnosis of a chronic disease or even cancer, because often people are shocked and they have no idea what to tell their families." "… it is so critical to have a good consultation at the beginning, especially if there is something like diabetes, or hypertension is diagnosed, and the patient will have it life long and even a mental disease. Then it is worth spending that half an hour and letting the others wait. The patients with back pain you can spend 5 minutes on as it does not require such a detailed consultation." "I have seen a doctor approach the patient in an aggressive way which immediately shuts down the patient. It had to do with a language barrier it was an Afrikaans patient and an English doctor and that aggressiveness offended the patient immediately…It was the tone of voice, and not using appropriate terminology. So instead of asking the patient 'how can I help you' he asked the patient 'wat soek jy hier?' (what are you doing here?). That did not go down well. So it was like saying to the patient you should not actually be here and 'what do you want from me' instead of I am here and I am available to help you." "I think it is important that doctors understand how to communicate bad news to a patient... the strategy we advocate is that you bring the patient up to speed of previous events that has been happening. So we have done this blood test, we took a biopsy, you've lost 20kg of weight and we did some tests and we are now here to discuss those tests'. So that is preparing the patient or the family. And then you give a warning shot. You communicate indirectly that something is wrong. 'I am sorry, but we have not got good news for you today'. And then you can share gently, 'well the tests showed that there is a problem and we have confirmed that you have cancer of the lung'. And then give the person a sense of hope after that saying: 'we can manage it in this and this way and this is our plan'. Arrange follow up so that there is a trail and there is a plan. Instead of just saying 'sorry but you have got cancer', and the person has an outburst and it is just so much worse." "Being able to communicate effectively when things go wrong. Where some of the colleagues will crop up frustration this person would say listen we have got this issue how are we going to manage it. Having the ability to ask appropriate question and to keep people responsible."

Table 4.3 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
9	*Self-awareness*	Recognising when you are not coping and developing a plan to manage any signs of burnout.	"…you need skills to manage yourself and to recognise when you are close to burnout." "…recognise when they are showing signs of burnout and how to develop a plan and even if it means to take a long weekend or to take a day of. They can recognise when they are not coping."
10	*Lifelong learning*	Continuously identifying areas in which you can improve your knowledge and behaviour and working on improving it.	"That reflection process when you have identified gaps in your knowledge; normally that would stimulate you to go and read up. Ideally you should do that and read up specific things."
11	*Teamwork*	Consider the impact of your actions on the team, asking for help from team members and also providing help to team members	"…if they would withdraw from the system they would be concerned of how it would affect the system." "Ask for help and not just freeze, go for short walk if you can." "They were very accountable and responsible and in a sense they took on more responsibility that was expected from them." "To an extent number 6 was a bit demanding of the system and of the employer. With requests that were inappropriate." (-) "…2 and 3 make sacrifices to help with the facility and to manage patients." "The other colleague is the person that sort of shows no concern for the team and would stay away from work inappropriately. That often put a lot of tension on relationships and sort of puts a vicious cycle in action where relationships deteriorated." (-)
12	*Medical professionalism*	Showing willingness to help all patients who seek help, dealing with conflict effectively and being punctual.	"…immature and at times irresponsible in his time outside of work." (-) "So it was like saying to the patient you should not actually be here and 'what do you want from me' instead of I am here and I am available to help you." "The one person took an argument with a Superintendent basically raising voice in the public space and accusing the management of being unfair… and that was inappropriate and put a lot of strain on the relationship. And then we actually have sort of clusters of doctors that sort of deal with frustrations by "broeing" (evolving) the frustrations amongst one another and not coming in the open with it… The system do not always work; people make mistakes, but then it is necessary to be open about it and to manage it, but if frustrations end up in on your Facebook wall or with other colleagues, that also put a lot of strain on relationships."

Table 4.3 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
13	*Business reasoning*	Using resources effectively and considering the larger system.	"They would come in half an hour to an hour before the time as they know it is going to be a busy day, somebody is on leave, or there is some extra theatre cases booked" "…weigh up the implications of that decision and how that decision will affect the system, especially in a resource limited system." "Often they draw on the community resources like the home-based carers to assist…" "…they use the resources more efficiently; so they would ask less blood tests and more appropriate blood tests on the patients." "…not efficient use of resources of consultant time, and other people's work got interrupted because he is constantly calling." (-)
14	*Information gathering*	Holistically investigating the medical problem, the individual issue, as well as the context and capturing the information accurately and comprehensively in clinical notes.	"…if the person can write legibly that is very useful, 'cause some of our very experienced doctors who are accurate in what they do, you cannot read a word that they write." "Ideally the doctor with a holistic approach will look at the medical problem, the individual issues, as well as the context and then refer to the social worker or other people as necessary." "So this person which is efficient did that; correct date and time and wrote very clearly and was systematic in writing down the history. There needs to be a balance between too much and too little. "And criticism I have against some people…is the use of abbreviations which is often interpreted in various ways." (-) "…that doctor tend to exclude the contextual circumstance and fail to try and understand patient's behaviour." (-) "…if you can write short sentences capturing all the relevant information in terms of what happened, what are the current symptoms, previous medical problems, operations and medications described." "The history and clinical notes vary and appropriateness so the person with multiple traumas you need to have detailed notes of every injury and what you have checked for and what you have looked for even and serious complications which you looked for and that was not present. And you need to state how you looked for it." "What is also necessary, which doctors often don't do, is to write down assessment and some reason behind the assessment...The initial treatment and what needs to follow with that and then the discharge plan."

Table 4.3 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
15	*Reflection*	Reflecting on one's practice and behaviour to be able to improve in future.	"Even though they have made decisions and described treatment and the patient is already treated, but to go and sit down and just think about what happened and what else could have been done. Because that process of reflection can help you identify areas where you have gaps in your knowledge." "Need to be able to reflect on your own practice and behaviour." "…it is useful to help identify knowledge gaps as well as deficiencies in your skills; but it is also useful to reflect on negative or bad outcomes to avoid them. Those outcomes can be interaction with colleagues or interactions with patients or clinical outcomes like where there is morbidity or mortality." "…it is personal growth, but it is also hopefully as you grow the system will also be more efficient." "…it definitely comes with self-awareness. It also comes with recognising burnout. It links with that."
16	*Problem-solving*	Assessing available information in a calm and structured manner and confidently deriving conclusions on how to solve a problem. Willing to ask for help, should one feel uncomfortable with the situation.	"He was also responsible and was able to problem solve, he was rational when it came to making clinical decisions." "That doctor often just applied a systematic approach, just from taking a good history, going thoroughly through an examination and considering various options." "You have to rely on clinical skills, your clinical reasoning and clinical problem-solving. This person was so unsure that he was in a sense paralysed by fear. The only thing that person could do is to with nearly every patient phone somebody for advise. That really irritated many of his colleagues." (-) "If you have simple clinical problem it is important to recognise what is life threatening or can cause severe disability and what is a simple problem that can be manage quickly. So if you are going to spend half an hour on a simple back pain or a simple headache and you cannot recognised that this is a simple problem and can be managed with Panado and you spend half an hour taking the history and examining the patient and over-investigate, it means you cannot judge the severity of the disease; it really limits your efficiency." (-) "…as you go on and ask questions your theory of what the problem is changes constantly and if you have a structured way, you can narrow it down reasonably quickly and come to an assessment." "I think that is part of problem-solving that if you ran into trouble to be humble enough to identify you are in trouble and need some help."

Table 4.3 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
17	*Working with people*	Interacting with people with respect, interacting in a way that is fun, show appreciation towards others, use humour appropriately and bringing people together.	"…his ability to get people together; even if it was in the tea room or on a social event, just to get people talking and interacting with people, showing respect, but also interacting in a way that is fun. Being able to communicate effectively when things go wrong. Where some of the colleagues will crop up frustration this person would say listen we have got this issue how are we going to manage it. Having the ability to ask appropriate question and to keep people responsible." "It would be a phone call or he would just pop into the office and say 'okay, tea is ready' even if you weren't there he will say 'we missed you yesterday.' So 'ja' (yes), frequent and regular communication." "…he will do small things to show appreciation. He will remember secretary day and make sure the secretaries get a flower." "…humour and a genuine interest with what is important for the person." "The one person was very much self-centred and when there was an issue or something where he felt his interest was threatened he would manage that conflict very inappropriately…the same with management; he would voice his frustrations inappropriately to management." (-) "…they (students) think that they are going to be treating patients, but it is actually working in an environment under pressure, and being able interact appropriately with colleagues... They are currently looking at the collaborator role of the graduate attributes which is a step in the right direction to influence it."
18	*Patient-centeredness*	Helping patients and not just managing problems, allowing patients to participate in the solution-finding process, and taking the context into account to understand what the real problem is.	"If you are just managing problems and not helping the person the patients tend not to trust you if you just try to tell them what to do. But if you allow them to participate in finding solution they are much more at ease and able to trust you." "'Doctor I did not have any food so could not take the medication without any food'. I have seen numerous times as well, doctors gets upset and irritated without really considering why or allowing the patient to explain why they do certain things or why they came 3 days later after the wound to their leg and just so reacting out of anger and irritation. And then making quick conclusions; sometimes there are emotional or mental roots to a medical symptom. So a patient comes in with abdominal pain where they focus very much on the medical problem, but meantime there is something else and often if you do not allow the patient to explain the issues, the fears, the ideas and what is happening at home you just misses the diagnosis totally and in the end you are prescribing useless medication."

Participant 3 (personal communication, July 23, 2015)

4.2.4 Participant 4

Participant 4 is a white male who said he takes research very seriously and I also observed him thinking carefully about how he described the medical practitioners and scenarios. He explained how important it is to read the full 'landscape' when consulting with a patient. In addition, he illuminated that emotional connectedness is a requirement to ensure that healing eventually takes place.

The interview was conducted after the working day, and even though it seemed as if the participant had a long day, he was willing to proceed with a 90 minute interview and was fully engaged during the interview. Table 4.4 tabulates the themes that emanated from the constructs elicited during the interview with Participant 4.

Table 4.4

Themes Stemming from Personal Constructs: Participant 4

No.	Themes from personal constructs	Description	Supporting quotes
1	*Communication*	Explaining information comprehensively and unambiguously, and establishing the emotional connectedness to facilitate the cognitive processes required in transferring the information with clear understanding.	"It is attention to detail of what should be dealt with, when and closing the full circle of an explanation." "…if you yourself will be getting that instruction or explanation will be left uncertain as to how to proceed." (-) "It would be a combination of articulation of umm human connection and empathy umm that is lacking…a gap in the cultural nuance of what to say when." (-) "…so cognitive understanding which is also emotional understanding – the two go together – you need the right emotional connection or 'toenadering' for the cognitive processes to work and that is facilitated by metaphors, language, how one is between people. Obviously in addition you can then have drawings, you can have models, you can have examples and experiences. But it requires that emotional connectedness plus cognitive intelligence to transfer the right information at the right time." "The emotional content between the two has to be at high level for the cognitive processes to function at their best potential. And that potential is threatened by the doctor's capabilities the patient capability, which can be linguistic, it can be metabolic. There are many things that can diffuse that ability to understand what the words are of what is happening to my body."

Table 4.4 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
2	*Reliable*	Being dependable doing what one said one would.	"…they do what they say they will do." "…said that it will be done, but it won't be done. So action is not followed as promises." (-)
3	*Patient management*	Understanding the patient and facilitating the patient's understanding of his/her disease.	"Whatever is transferred cognitively will be understood to the best degree and that is what leads to healing." "…the information can be transferred that you continued to be connected and you want to move with that understanding. And you are given more information it is not just once off, but you are taken through a journey where this little window is open for you to understand, then there is another window that opens and another. And that is eventually the healing."
4	*Patient-centeredness*	Displaying empathy and understanding towards the patient, looking the patient in the eye and being sensitive towards the patient's behaviour.	"Empathy and trust is vital." "…empathic and empowering." "…one would expect that they do ask the patient what are your ideas, feelings and expectations as a routine….it sensitises you if you have not learned about human impact and empathy, it forces you to think about it. Once you think about it for several seasons, several consultations, you ought to learn how to pick it up. And then you do not have this broad 'what are your ideas, feelings, and expectations', but that you can reflect on someone's body language 'I can see you are uncomfortable'. So it is a tool to develop behavioural sensitivity on a part of the practitioner." "In a busy clinic like we had now, people wait for a long time. You're a bit hurried, they're a bit hurried. And I think a sign of compassion and empathy is to recognise this person's wait; that they have waited a long time to see you. So to communicate that with them in a warm way facilitates further patient-centeredness. I think this is a superficial example, but it needs to be in your forebrain, to practice it. So in the context of, end of the day, tired, long wait, everybody wants to just get on with it and finish it, to have the courtesy to recognise this patient's wait for those many hours, to be seen. And therefore to want to add value to it, but the adding value to the consultation is prefaced by honouring them with a genuine recognition of their wait." "…somebody not looking. Somebody writing notes and then not looking at the patient, and looking in their eyes and regarding them as a human being. That's lacking patient-centeredness. Maybe they can be fantastic notes, clear as buttons, beautiful, all the correct things, but they haven't actually looked at that person and that person will feel it. So, that's not patient centred." (-)

Table 4.4 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
5	*Tolerance of discomfort*	Displaying the ability and willingness to accept and deal with discomfort of medical problems and system frustrations.	"…have a lesser tolerance to discomfort, that this one." "Difficult medical problem. That's say a medical emergency. More willingness to deal with a difficult medical emergency. So nr 5 and 6 are less willing to deal with it, and nr 4 is more willing to deal with it." "Avoiding it…Transfer it. Hope that someone else would deal with it." (-) "I can see they are uncomfortable with it and they try to avoid it, but emergencies do come their way so one could just say that it is jolly obvious that the one will behave like this and the other like that." "There is a deep acceptance there is a longer compassion for what we are and what we are dealing with day to day. And that is important in our public health service."
6	*Coping with pressure*	Calmly proceeding with tasks under pressure, delegating activities and puling on your resources to get it done.	"With calmness, with humour… but predominantly getting on with the job calmly and actively." "…they would activate the group. There would be a process of communication that would activate the group. They would say Michelle put up the drip, Peter go and get the.., John phone... it would be dealing with the situation." "More defensive and either walking away or saying it is your problem you must deal with it; or dealing with it, but getting a little bit excited…" (-) "Not delegating. So not saying Peter you do this Paul you do that, but looking for things, raising voices. Not actively dealing with the problem, but reacting to the threat of the problem." (-) "So the landscape was read accurately, communication was reasonable – not loud, like 'you do this, you do that', it was just 'go ahead', and the person took action himself. And then the rest followed very clearly, very easily. It was sort of standard procedure. So then the exemplary thing would just be, within in the routine, this kind of thing happened, and it was just fitted in very clearly, there was no faffing about. And it wasn't dramatized either."
7	*Self-efficacy*	Believing in one's ability, to confidently articulating what you are doing and why you are doing it.	"They would articulate it quite confidently by saying I am doing it like this because of this and this. So they would give a reason for why they do things and this person would do something but if… this would also be in defensive criticism (-). So if these two would confidently substantiate the reasoning for their behaviours…This person when criticised would feel threatened and wouldn't give a clear reason, but would feel insulted and hurt and threatened." "…in any observation that questions behaviour would not be any countenance so there would be either a silence or a shrugging or a withdraw. So it is not interacting with the issue." "…so it is the non-response or the hurt response; which makes it difficult."

Table 4.4 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
8	*Medical/health advocacy*	Identifying impediments that are indirectly influencing health and taking action to reduce its effect.	"…you see these impediments that have nothing to do with medicine; social impediments." "…medical advocacy is important."
9	*Problem-solving*	Getting past the emotions, accepting the elements that are not going to change rapidly, and persisting and focussing on the problem to be solved.	"It affects the performance in a sense that his anger is directed at the system, at the managers and at the perceived lack of support and that leads to isolation. Compared to say someone who sees a deficiency, and recognises it and collaborates with people who would do what they can to overcome the deficiencies, but accept those elements that they are not going to change rapidly. They do not give up on it, but they bear with it. You suffer with and under those challenges but not a negative suffering. Suffering meaning that you feel the deficiencies but you continue to look for potential solutions without using a simple blaming tactic."
10	*Efficiency*	Approaching tasks in a relaxed, flexible, but still organised manner, flexibly adapting to different scenarios.	"…they are similar in being proactive, very organised in each task. So setting of to do ward round setting of to do case in theatre, presenting a talk... they are clear, their handwriting is also very clear." "More lugubrious and laissez faire. Lugubrious, do not know if I should use that word. In a sense less "paraat" (ready) and more emotionally... it's quite relaxed. Which is an attribute; it is actually a very positive thing…" "I think this one draws more pleasure and fun than these two, but so there is a different style of effectiveness." "They deliver the goods, sometimes there is a failure as there is a slight narrowness there." *Narrowness? "*Narrowness in the sense that things are a little too cut and dry. One of the successes of successful people is that they are clear, but that they are not that complex and nuanced; as artists might be."

Table 4.4 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
11	*Information Gathering*	Considering all clinical signs and verbal and behavioural cues from the patient to derive a conclusion.	"…information gathering is observing, it is being awake, it is picking up all the nuances so it is not so much asking, it is reading the landscape in one shot that is the best. If someone question you know what the answers are, but you must see what is happening, you must read it and you must interpret it." "…we had to take action so she was wheeled into theatre and we gave the anaesthetic and this person removed the placenta and did what was needed to be done to reverse it. It was really the whole team, but the action was that this person understood the landscape immediately." "…he had been seen by the outpatient team and then referred to orthopaedics, and he hadn't been inappropriately referred, but his problem had been misinterpreted. He was an epileptic and he had difficulty with his shoulders, and he had been referred to physiotherapy. But what had not been clarified was that he had a fear of moving his shoulders because he felt he might dislocate his shoulders when he moved them…I think it was a complete cross-cultural language failure" (-) "…a person coming in with a respiratory tract infection, and this is a fairly standard thing. Respiratory tract infection, coughing, short of breath, and what was not picked up in the picture was that this person was very pale as well. And that was an [undefined] reason for respiratory distress. So it's kind of a clinical failure and experience thing. So picking up the landscape, maybe not reading clinical signs…"
12	*Deciding and initiating action*	Deciding what is the most efficient way to deal with a problem, containing it and take action to solve it as soon as possible.	"It goes from very simple to more complex things… Decision-making with what you have… We could go with a very easy example to say… You see somebody's pale, and you pick that up clinically, and you take a spencer hemoglobinometer there and then you check the haemoglobin… in fact we had that example on Wednesday. She bled… We weren't sure whether we would transfuse or not, and we did this immediately. So that helped us." "The question was: did we need to transfuse or not? She looked pale, so you can do a test, a test can be taken and blood sent into a laboratory, or you can do an onsite test, which you can do and then there are variations of people's perceptions of the accuracy of this test…I know it because I use it regularly. In this case, the sister who was doing it didn't quite know how to do it, but then we did it correctly and got a very good reading. So we didn't have to take any more action. So that was an effective decision-making."

Table 4.4 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
12	*Deciding and initiating action* (continued)		"…it isbasically drawing the wrong conclusions… maybe this is an example. Somebody sent in a patient today with something that they saw on the x-ray and then sent the patient off to the orthopaedic clinic with a significant worry that this was something serious. But in fact, knowing the clinic they'd come from, that x-ray could have been discussed with someone at the clinic and could have diffused the worry and the referral very easily…The doctor was worrying and making the patient worry. So the response is not to say, 'don't worry', but contain the worry immediately and closely. And the argument could be: no it's not always possible. It usually depends how you organise yourself. So it's talking about decision-making, you can shelve problems or send them around, or you can contain them and want to solve them…"
13	*Lifelong learning*	Displaying curiosity to find out more, questioning the status quo, not to taking things at face value, and keeping up with change	"He questioned everything. He questions everything and he's not lazy to think. He's not lazy to ask people. He doesn't take things at face value. He doesn't lose interest. He doesn't make assumptions about how it works, he wants to go and measure it, and look at it and see it and touch it and feel it himself… we are all supposed to have this, we have it little bits and pieces, but I've never seen it as strongly as in that example. That's why it is extreme. Because all the other examples of people, they do a little bit of this, but nothing near what... That's what it requires, and reading, talking, questioning, just a tremendous intellectual interest…" "Curiosity, and an interest, and a question… not taking things at face value. All of us medics, we actually get tired of this stuff." "It's actually a defensive knowing of a terrain. So it's anti-curiosity. It's actually removing something that might be of interest, there would be an active process of actually putting it aside and rather limiting yourself to the more circumscribed sphere. The deficits are also not re-evaluating. So if things don't add up, not actually, being that cognisant of that. Inattention." (-) "It's an essential survival strategy because the rate of change is so high. It's number 1. Number 2, it's a good principle to hold up because things are not just what they are at face value. The complexity is too high to have that attitude. You know, I know everything and it's easy. It's not like that. General medicine is far more complex. So it's a dangerous attitude, to not have an attitude of lifelong learning. Lifelong learning assumes that you've got to continually engage and update and you can't just sit back and say 'cool I've got it sorted'. You don't."
14	*Medical professionalism*	Acting honestly and displaying integrity.	"You have medical professionalism, and I assume honesty and integrity would be all part of that. Because that in fact would make that a more important thing. It's really very important."

Participant 4 (personal communication, July 23, 2015)

4.2.5 Participant 5

Participant 5 has a passion for people and serving the underserved. He is a middle-aged white male. He is willing to take risks to save the lives of others and views patients in context; he does not only focus on the medical problem, but also considers external factors influencing patient and community well-being. Table 4.5 presents the themes that emanated from the constructs elicited during the interview with Participant 5.

Table 4.5

Themes Stemming from Personal Constructs: Participant 5

No.	Themes from personal constructs	Description	Supporting quotes
1	*Spirituality*	Demonstrating the love of a higher power by serving the underserved.	"…they are in rural areas, with really a calling on their life to serve the under-served. Both of them have a Christian calling to do this and really care." "Not evangelism but really demonstrate love in Christ." "For him, it was more I think not just a Christian conviction but there was something more to this one's going to really serve... because that's the type of person he is, to make a difference" "That was just the calling he felt that he had to stay there."
2	*Patient-centeredness*	Caring for patients and understanding how they experience their disease and focusing on assisting with the real issue and not only the medical problem.	"Both of them are very thorough and very caring." "They are patient-centred." "So it's not me telling you what to do. Obviously I can tell you what's wrong, what disease you have. But I can't really understand how you experience things. I can't understand how would you like to function again, and how should you function to cope in your life. I don't understand the circumstances you're coming from." "…that's breaking down the hierarchy between you and others, and when you're working as a doctor and you think about patient-centeredness, really caring for somebody, outside of just the disease that's in front of you, which can often be cured very easily, or not at all. It's how do you really get somebody to function and to understand their context, where they're coming from, where are they going, and to be able to listen and really learn from your patient. Not to be, sort of, prescribing…"

Table 4.5 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
2	*Patient-centeredness* (continued)		"So, what's this mother's biggest need? To be fully cured of a stroke, or to get home as quickly as possible to know that her baby is fed, is safe? So you can't separate the two…send the student out to go and have a look or 2 students with the social worker or home carer, even bring the baby here, I mean that type of really, making an exception here, walking the extra mile." "These doctors do have that sensitivity like we are mentioning here. To really say, listen here, this is really the issue. I'm not just 'gonna' write a referral letter that may end up in the social worker's in-tray. We will have an immediate meeting with the social worker and get something done about it, not now but now." "These doctors all subscribe to bi-psycho/social/spiritual model of care." "He is actually the guy who invented the name, in a sense, put patient-centeredness on the map globally; developed models for that that's still being taught today." "I think even in a sense more patient-centred than this one." "They're pretty much authoritarian." (-)
3	*Coping with pressure*	Remaining calm and displaying resilience despite setbacks	"Both of them are 'rustig' (peaceful, relaxed)." "They've enormous resilience…he didn't quit despite all the setbacks." "…then they work themselves up, become more anxious (-). Others are just more calm and more relationship-orientated."
4	*Servant-hearted*	Displaying a community orientation and delivering a medical service to the underserved	"They've both prepared themselves, after they've completed their studies, to go and work in a rural area. So they both had that vision to go rural and both of them actually prepared themselves for 2/3 years by doing various courses and various rotations to go and serve. So they can be a very good generalist." "…he was an academic that resigned all the glamour and everything to go and serve." "All of them do have a passion for community, that's why they are serving in those positions. I mean, they are there (in the rural areas)."
5	*Clinical reasoning*	Displaying clinical competence in diagnosing and treating medical conditions	"Both of them are clinically very active. No, not clinically active. Clinically competent. "They rotated for 6 months through all the various departments to be better equipped to work and to gain better clinical skills and knowledge."

Table 4.5 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
6	*Teamwork*	Regarding other professionals as equals, and supporting and motivating colleagues	"They are team workers. They regard other professions as equals." "…you need other doctors who are on the same length, who can meet with you and you can just discuss and grow together." "I know that in Kwazulu-Natal the doctors in rural areas once a year have a retreat with their families, and there are programs for the kids, there are programs for the women, and the doctors meet and they chat and they have talks and just discuss, just encourage one another for 3-4 days." "…in the places where they have rural hospitals that's where people really stick together and where they make a huge difference in communities where doctors are doing that." "…he built huge relationship within the country also but from varsity they sort of had a few friends who made a commitment to want to make a change. Perhaps more accountability also that they had. Informal accountability towards each other." "The other one have patience, but much less support so he's more dependent on the others and on the team." "I think part of health advocacy is it links so closely to teamwork. You can't do this alone." "…you must have the ability to equip your team to that positive energy, that problem-solving." "So you have to have patience to get people's trust so that are working with you to allow you to do things like that and to support you."
7	*Teaching*	Serving as a mentor for less experienced colleagues and teaching students with passion	"…they are both really mentors and they are good teachers and they love students." "They don't care to teach students. Students are not a pain and in their way." "He was a teacher, he was a philosopher, and he was a think leader. But still so humble and down to earth, had time for students – every Sunday he invites students over to his house and they just chat, every Sunday they had 5-10 students eating at his house, for 30/40 years."

Table 4.5 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
8	*Medical/health advocacy*	Advocating and actively promoting access to quality medical services in rural areas. Equipping other medical practitioners to become better rural medical practitioners, taking initiatives to improve health services on an individual and a system's level	"He is an advocate for rural health." "…starts or was very involved with the formation of RUDASA, the rural doctors association. He started with CHEER, which is sort of, what does CHEER stand for… It stands for research in rural health. So he really tried to see what the needs of doctors are in rural health; doing research, getting different universities to research that and I'll say he's the expert of rural health in South Africa. He is the one who will… really help them. How do you cope, how do you develop resilience? How do you build support networks? How do you be more patient-centred? The initiative. He also started, for example, with a training program at McCawds hospital, which we called a vocational training program, to equip doctors to go and work in rural areas." "…influenced the whole country to embrace family medicine and patient-centeredness." "I know for a fact that when they decided to go, is there was a team around them, who said 'shall we go and make a difference?'" "…because a successful doctor also lives in his community. You can't live somewhere else. You have to be part of your community." "I think part of health advocacy is it links so closely to teamwork." "I mean there's two parts of health advocacy. A few parts. I mean, one part is surely to know and have the skills to take on the bureaucracy and the corruption and the big issues. But then also have the patience to slowly but surely change manage." "You need the advocates or the radicals or the rebels but you need those who just quiet build relationships and just change things from grass-root up and other people won't necessarily realise there's been change." "…he referred patients to the NGO to get ARVs. He campaigned, he wrote letters, he did everything in the system to try and get ARVs. And he was suspended because he did that and that wasn't according to the rules."
9	*Self-care*	Achieve a work-life balance and taking the necessary steps to care for yourself when you are burned out.	"For sure (medical practitioners need hobbies and interests outside of their careers). Otherwise they won't cope." "You're involved in the community, you're involved in your church, or whatever." He had enormous potential and within five or six years of being in a rural area he got addicted to drugs. He total burned out. And he had to leave the rural area. Since then he had to work in a bigger centre, bigger hospitals, always under supervision. Because, you're always in recovery. He's actually doing very well

Table 4.5 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
9	*Self-care* (continued)		now and he didn't quit despite all the setbacks. Which demonstrate the need to work in a team, to not be too alone and to practise self-care." "If you are self-aware, you think. You make time to think. You actually spend time with yourself, it is part of self-care." "I think personal growth, for me, will in the first place be balancing competing time demands, where the work is not all consuming although it's often a large part of a doctor's life. To have boundaries. To balance your life between your work, your family, yourself."
10	*Being humble*	Seeing yourself as equal to other people, being soft and modest about one's achievements	"He discovered that there is something like that. He was part of it. You won't see his name anywhere because he is so humble." "…that's breaking down the hierarchy between you and others…you must be very humble." "These two are much more humble and listening." "They are both super specialists, he's a professor, he would have been a full professor by now, if he didn't go rural and just serve there. But they are enormously humble and talented." "But still so humble and down to earth, had time for students." "…these two are softer. They are more humble."
11	*Leadership*	Taking on a leadership role above and beyond your general duties.	"The other one became a global leader." "…he was a think leader." "…you must have the ability to equip your team to that positive energy, that problem-solving."
12	*Innovation*	Accepting responsibility for the unit and its objectives through actions that may fall outside the scope of one's narrow job description for the benefit of the unit and its patients.	"…but my sense is that they are more innovative." "…so you get in your car and you go buy diesel on your own account and you put it in the generator so at least that you have power in the operating theatre." "You change the bulb light. You take the patient and you push the patient from the ward to the theatre. You pick up the patient and you take the patient home because there's no transport and it's on your way home although it goes against all regulations and all the security and risk management rules. If there's an accident, you're not defensive and don't do anything because you're afraid you get in trouble. So that's the difference between innovation, being willing to take the

Table 4.5 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
12	*Innovation* (continued)		risk, because you know what's right."
13	*Lifelong learning*	Knowing your limitations, and continuously developing one's clinical skills and knowledge.	"They are less academically inclined to really learn." (-) "I think also when it comes to learning, I think it's time to think..." "He will still go on a course to know, how do I do this procedure, how do I do that procedure. He will still be reading his articles and getting all his journals and read those things." "Always willing to learn from other people, even if I know they know 100% less than he does, it's always that willingness to learn." "And they're getting bored. There is no growth. The only thing that matters to them is money. I can't go on the course because it will cost me money." (-) "The biggest problem is that people are often too busy because they are the only doctor in a place and they really don't have time to learn. I think the difference is perhaps not so much the question about CPD, which is an issue. But it's also knowing your limitations and being self-reflective. Because it doesn't go on CPD stuff."
14	*Communication*	Listening to patients, and communicating sensitive information in the correct manner.	"They are not good listeners." (-) "So that's why you need to be a good communicator and teacher and more a coach perspective than a God's gift to mankind perspective." "'…this patient has stage 4 cancer, she probably has six months to live.' They talk about her but nobody have ever told her this (that she has cancer)"
15	*Medical professionalism*	Treating people from different socio economic backgrounds in the same respectful way, acting with integrity.	"Although nice, but they have their up flares and their outbursts." (-) "That's professionalism. To treat a 'bergie' (homeless person) in the same way than the president's wife." "…that's when everybody is the same, and you are not allowed to treat differently even if it's a prisoner or whatever." "I was standing in theatre and the surgeon coming in, showing up don't greet anybody, starting to operate. A nurse was not quick enough to hand him a scalpel, he'll take the whole tray with everything and throw it against the wall and scream and say 'give me someone who is competent'. Throw me with a blood swab because I'm not pulling hard enough. I mean it's just screaming, and it's just

Table 4.5 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
15	*Medical professionalism* (continued)		narcissistic." (-) "…if you run your ward and your hospital in the same way, treat everybody in the right way, things will happen." "Ek dink onder professionalism sal ek integrity…val seker integrity ook in." (I think I would include integrity under professionalism)
16	*Working with people*	Taking other's viewpoint into consideration, involving others, and collaborating with other healthcare professionals.	"So staff don't always like them because they sometimes take it out on the staff and on the patients, especially the one that takes it out on patients." (-) "…number 3 is much more relational orientated and a listener than the other two, who are more task orientated." "…she wasn't authoritarian. She asked even junior team members, what do they think. Asked the parents of the kid, what do they think. Really listened and helped the team come to a conclusion. Not herself, just blasting out things and blasting commands." "…she involved the whole team. Not just writing referral letters to everybody else but say ok, this is a complex case, can we chat over a cup of tea about this? Or the next day on the ward round can the social worker and the occupational therapist be here so we can chat about this with the parents." "Really collaborative. To realise that she doesn't have to do everything but it's also not just passing the buck to others to solve. Because to work in silence it's really to say ok, I can be with the family, with the parents, with the carer, with the teacher – come up with a long term solution and everybody knew their role. Initially it was the doctor who was the, let's call it the case manager. And it was the nurse at the local clinic. But the doctor was still part of that team." "Well it's managing by fear. So people are afraid of them. People do things just to get out of trouble. You don't want to work with them because you are afraid of them. You're afraid you do something wrong so you rather not do it. Or you'll overcompensate. If you must care for a patient and you know tomorrow morning on ward round you'll be in trouble anyway never mind what you did." (-)
17	*Efficiency*	Working at an acceptable pace and also solving the patients' problems.	"…he again is very slow, which may also frustrate other colleagues because they will see to many patients, he will see to four. But he will solve four problems, I'm not sure if the others will solve twenty problems." "…he's really listening, he's perhaps too thorough, because he's coming from a

Table 4.5 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
17	*Efficiency* (continued)		different background as an internist, the others are family physicians. And I think he also has more complex patients. He will probably get the most difficult, most complex patients where the others will just have to clean the waiting room."
18	*Self-awareness*	Reflecting and being aware of one's limits and when one is close to burnout, and purposefully work on self-care.	"If you are self-aware, you think. You make time to think. You actually spend time with yourself, it is part of self-care. It's getting your head out of the woods and getting a bigger picture. It's also knowing to know when you can't take it anymore and you have to be careful not to burn out. The biggest problem for doctors out there is to burn out. And then we lose them to the system. And if there's self-awareness, we call it a reflective-practitioner, mindfulness, Christian identity, whatever you want to call it – having time to think, having time to just be on your own, that's crucial. Otherwise you will just be running around and you will burn out." "It will also be to work purposefully on issues like self-knowledge and self-forgiveness, self-acceptance, self-confidence."
19	*Problem-solving*	Taking responsibility when challenges arise to solve the problems, even though it is not related to one's main job.	"…his problem-solving skill is not in the practical type of stuff. His problem-solving skills is in critical thinking and his knowledge." "You change the bulb light. You take the patient and you push the patient from the ward to the theatre. You pick up the patient and you take the patient home because there's no transport and it's on your way home although it goes against all regulations and all the security and risk management rules. If there's an accident, you're not defensive and don't do anything because you're afraid you get in trouble."
20	*Rule-following*	Taking the risk to break a rule if it is evident that one's idea/action might save a life.	"They took the risk. And now the doctor said, no no no no, I'll be suspended. I'm not 'gonna' take the chance, rather let she die." "So that's the difference between innovation, being willing to take the risk, because you know what's right. Obviously you must still know this is evidence based on what I'm 'gonna' do."

Participant 5 (personal communication, July 24, 2015)

4.2.6 Participant 6

Participant 6 is a white female. She was very friendly, welcoming, and well-prepared for the interview.

At the beginning of the interview, the participant's voice trembled as if she was anxious and she apologised for taking a minute to think of examples of medical practitioner behaviour before she responded. The interviewer managed her anxiety by telling her she is allowed to take some time and think of an example. In addition, the participant was thanked for her contributions acknowledging that her opinion is important and that she gave valuable insights to the study. As the interview progressed she gave examples more easily and presented calm and composed. Table 4.6 encapsulate the themes that emanated from the constructs elicited during the interview with Participant 6.

Table 4.6

Themes Stemming from Personal Constructs: Participant 6

No.	Themes from personal constructs	Description	Supporting quotes
1	*Medical professionalism*	Being polite to patients and acknowledging them as people; being ready and available while on duty; not stereotyping and judging patients; behaving ethically and according to the law	"This doctor was very rude to patients." (-) "This doctor was actually committed a very serious offence – he molested female patients on more than one occasion." (-) "…locum that sleeps on duty and takes very long breaks and the nursing staff can't get hold of him." (-) "This one doctor is sometimes a little bit rude towards patients; he can come over as a little abrasive." (-) "We got regular complaints that's she's rude to the patients…she just didn't have the time to smile and say 'hallo' and sit down and ask 'are you feeling comfortable' and 'how can I help you today'." (-) "She was here shorter, for 6 months only and in that 6 months there was a lot of complaints that she's rude." (-) "He said something to her like, 'you know it must be very dirty where you live if you've got a cockroach in your ear'." (-)

Table 4.6 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
1	*Medical professionalism* (continued)		"We must be careful and steer away of categorising or stereotyping patients and not judging patients." "…she was available, she was there to see the patients, she didn't sleep on duty or take long breaks or just disappear."
2	*Communication*	Maintaining eye contact when communicating with patients; making the patient comfortable by greeting and smiling; starting the conversation with open questions before asking specific closed questions; continuously checking for understanding; communicating empathy through a hug or touch on the shoulder.	"She didn't look at the patients. She didn't communicate in a very effective way with the patients." (-) "She just focused and looked down and didn't even make eye contact, just focused on the task at hand in front of her. Her communication with patients was very poor." (-) "…to first make the patient comfortable, to welcome the patient, smile, and then get the whole story from the patient – let the patient talk, and then try to give back to the patient what the patient just told you so that you can just make sure that you understand completely and that you've mentioned everything that this patient is coming with today, and the patient has the opportunity to add things. Then obviously you start asking more closed questions because you initially started with your open questions." "That's why I'm taking a bit longer with my patients because I'm trying to do the correct communication style." "By far, the most complaints that we get is because of poor communication. For example, if patients wait a very long time, if there's just somebody that can once an hour or so just go and tell the waiting room of patients: this is the situation, there's one doctor, there's still 40 patients, you're still 'gonna' wait maybe three hours to be seen, we first see the most serious cases… So if there's just this on-going communication." "I've given patients hugs." "…sometimes if a patient cries in the consulting room, I'll touch their shoulder or so, but not a lot. And patients will usually tell me, many times they've told me 'Sjoe, doctor, thanks for examining me because usually when I come here no doctor examines me'." "…not make any assumptions." "…doctors must work so fast that they don't have time to get interpreters to come and talk to the patients. So due to the language barrier, communication can go wrong. Also due to education levels and people being ignorant, or they can't read what's written on the pill boxes. You must try to educate them that they must bring their tablets every time with them when they come to the day hospital, or the boxes, so we can see what they are taking and did they take all of their tablets as they should."

Table 4.6 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
3	*Efficiency*	Seeing the required number of patients per day; working with minimum errors; being sufficiently well-rested to work fast; understanding how one's work-rate effect the bigger system, and doing one's part to increase hospital efficiency.	"This doctor works way much more than what is expected of him; he works much more hours than what is acceptable…that's why we also get a lot of complaints that he works slow. So one can understand if you work 24/7, you're going to work slow because you're 'gonna' be afraid of making mistakes so you're 'gonna' double check and rethink things." (-) "He doesn't really make errors. He's fairly efficient, so the patients he sees, he sees them well." "…the trauma situation, where this doctor is a bit slower than this doctor in trauma, because he does all this shifts. In the outpatients, this doctor actually does pull his weight, he sees between the 30 and 40 patients a day just like the other two. This one doctor, she doesn't do any overtime. She's actually seeing sometimes 45 patients – she works very fast." "This one has got a problem with sick leave – she's been off sick for the last 3 years a lot (-). So when she's here, she works very well. But unfortunately she's off sick a lot… when she's here, she's very efficient, she sees a lot of patients" "If you really want to sort out a patient properly, then you need at least 15 minutes and you don't have that luxury." "He is very good at his work. He is interested in his work, he likes his work. To sum it up, he's just a very competent doctor." "…they are just too tired to work fast and efficient so one can see it in the number of patients that just abscond because the patients wait for ten hours and then they just leave and go and die outside because they just didn't want to wait anymore."(-) "You know they (the locum doctors) just disappear in the morning, they don't hand over the patients to the day staff that come on duty." "The day staff needs to know what patients are still lying in trauma, what is wrong with them, what is the plan with them, do the need review, what has been done on them, do they need to be referred, which are waiting for the ambulance to go over to Hospital A[6]… otherwise the day staff have to see those patients all over again. And that's double work and wasting of work hours."

[6] Please note the real name of the hospital is not disclosed for the purposes of confidentiality.

Table 4.6 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
3	*Efficiency* (continued)		"If patients are not handed over properly, some patients might lie there in trauma for a very long time before somebody discovers them and their condition might have deteriorated in the meantime."
4	*Self-awareness*	Knowing one's physical limits and knowing when one needs rest; having the integrity to say no for extra shifts.	"If you are self-aware, you will know your limits, you will know when you are too tired; you will know when you are not making the best decisions for your patients that you can make. "Being self-aware and looking after yourself and giving yourself enough rest will definitely help you to make less mistakes and also help the patients to get better treatment." "I feel they must also have the integrity or the self-knowledge or what do you want to call it, to know when to say no. To know when you are too tired to work…he knows his limits."
5	*Self-care*	Taking care of oneself and ensuring that one gets enough rest.	"They don't get enough sleep, so they are almost on a go-slow, if I can put it that way. Because they are so tired." (-) "Self-care is important and that's why I feel that it's bad that these doctors work so much." "…the circumstances in the state aren't always conducive to the doctor's health." (-)
6	*Deciding and initiating action*	Quickly deciding upon action and then also initiating the action; acting decisively	"So your decision-making is severely impaired if you work that many hours in a row." "If he's not sure, he will quickly take a decision that yes, he knows this or he's not sure, so he must phone this or that person."
7	*Problem-solving*	Looking beyond the obvious and investigating the problem; asking 'why' and getting to the core of the problem; attending to the problem and not the symptoms of the problem; taking action in trying to resolve the problem.	"…and nobody ever bothered to completely sort out the problem, or to get the reason why the patient has got weakness of the legs, or referred the patient at least, or do anything about it. Then I saw him (the patient) today and did a proper examination and I wrote a referral letter and faxed it to neurosurgery." "I realise the patient doesn't understand me at all because the patient only speaks Xhosa. Then I go and get an interpreter. We don't have official interpreters, so I must find someone that works here that can speak Xhosa." "A big problem with resources at the moment was the medication. So we had to write private scripts or we had to write alternative medication to the ones that was out of stock."

Table 4.6 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
8	*Coping with pressure*	Dealing with trauma in a way that is conducive to one's well-being.	"But the facility didn't have Lasix, and they didn't have the bag mask, they had nothing available. So she completely crumbled, fell apart under those circumstances; that's why she's afraid to work in trauma." (-) "Obviously every person will manage or interpret or internalise these things what happens differently, they might have not fallen apart because of that incident." (-) "As a young doctor, she didn't cope as well as the other ComServes (community service workers), with her amounts of patients." (-)
9	*Self-actualisation*	Achieving the most one can achieve in one's career	"She have mentioned to me that she feels a bit frustrated that she must just now work here for the rest of her life and that she really actually wanted to maybe go and specialise, you know – do something more." "Myself, I'm thinking – geez, I'm 'gonna' sit here for twenty years in this place and do the same job, so I think it's hard to get around that idea as well." "So for some people it's easier than for others to accept that you're just 'gonna' stay here."
10	*Self-efficacy*	Being confident in one's opinion.	"Number 4 is very confident, very efficient, very bright." "I think the confidence that he shows/displays, or the confidence with which he talks. He also has a lot of experience and makes errorless notes"
11	*Teamwork*	Helping each other and working together as a team to ensure better patient outcomes	"She helps me out sometimes if I am not here, she will help." "This doctor is obviously here in the mornings to handover, whereas these doctors disappear and don't hand over to the day staff."
12	*Lifelong learning*	Continuously extending one's professional knowledge	"…his knowledge – if you go and ask him something, he can help you many times. He's very experienced." "I know some of my doctors read the South African Medical Journal or the CME monthly and then they complete the CME or CPD questions." "We all have to attend courses or read journals. The government promotes going on these courses. So during the course of the year there are courses on lots of things – I've done a course on health management in June or there was the GP conference end of

Table 4.6 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
12	*Lifelong learning* (continued)		May." "So either you can do it through the magazines, the journals, or you can do it through the courses or I can get CPD points for teaching."
13	*Reflection*	Reflecting on and analysing previous medical cases and determining whether there is anything one can improve on.	"…we're supposed to have a weekly Friday morning CPD hour, which sometimes doesn't happen – like this morning. Usually that's fairly practical, discussing patients. For example, I do my M&M, that's mortality and morbidity meeting, where I discuss a patient that either died or developed side effects because of poor management." "The physician from Hospital A comes regularly once a month and he will discuss a topic, and usually it will emanate from a scenario that we had at the facility." "It's important to reflect on your practise and on what you are doing and to look back on your management of patients and see if there is anything that you can improve." "Usually all of this M&M and CPD is non-punitive, we don't "wanna" point fingers. We just want to try and improve the system and the management."
14	*Patient-centeredness*	Acknowledging the patient as a human being.	She couldn't see a way for looking patients into their eyes and smiling. She just wanted to get the job done.
15	*Teaching*	Sharing knowledge or interesting or unusual medical phenomena with other healthcare practitioners	"He will go around and show everybody x-rays and blood results and interesting things that he found or calls for people to come and listen if there's a heart murmur. So he likes teaching. He likes to share knowledge." "This doctor just likes his teaching. He will call you if he gets something interesting."
16	*Information gathering*	Making the patient feel comfortable; asking open-ended questions and following up with closed-ended questions; consulting with other health care practitioners to get more information;	"…to first make the patient comfortable, to welcome the patient, smile, and then get the whole story from the patient – let the patient talk, and then try to give back to the patient what the patient just told you so that you can just make sure that you understand completely and that you've mentioned everything that this patient is coming with today, and the patient has the opportunity to add things. Then obviously you start asking more closed questions because you initially started with your open questions." "…when he is not sure, he will immediately email the photo to the orthopaedic surgeon who will come back and tell them what to do. So he's also good with asking."

Table 4.6 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
16	*Information gathering* (continued)	accurately and comprehensively reporting findings in one's notes.	"…it (medical notes) contains the necessary stuff to rule out any medical legal problems. So if you read his notes, it's short and sweet. But it contains stuff that if he has to go to court, it will cover him."
17	*Clinical reasoning*	Developing a sufficiently large enough array of hypotheses on what the underlying causes of the symptoms are so as to allow one to make an accurate diagnosis and to prescribe an appropriate treatment plan.	"And nobody ever bothered to completely sort out the problem, or to get the reason why the patient has got weakness of the legs, or referred the patient at least, or do anything about it." "…nobody made any queries: why is he in a wheelchair? Why are his legs weak? There must be a reason, we must find the reason." "Nobody ever asked 'why does she have a catheter in? What's the reason?' And when I saw her and I did a PV, a vaginal examination, I felt a cancer." "Instead of giving her a proper day to come to the outpatients, that maybe at the outpatients we can sort out the cancer. Nobody ever did a PV on her in trauma. So these patients just fall through the cracks. People just go on the previous diagnosis of blocked catheter. Nobody ever investigates why there is a catheter in the first place." "…you must make a diagnosis. You must get your history, you must do an examination, you must make a diagnosis, and you must decide on a treatment. None of those people made a proper differential diagnosis." "You have to have the knowledge to be able to pick up these things, because there's a saying… If you don't think of something, you won't find it. You must have it in the back of your mind, you must think of that problem. It comes down to good clinical knowledge."

Participant 6 (personal communication, July 24, 2015)

4.2.7 Participant 7

Participant 7 is a white female and is currently occupying a senior position in a district hospital. She was very friendly, welcoming and light-hearted.

She presented as nurturing and caring towards patients and colleagues. She participated in the interview with notable positive energy which made it a pleasant experience. Table 4.7 tabulates the themes that emanated from the constructs elicited during the interview with Participant 7.

Table 4.7

Themes Stemming from Personal Constructs: Participant 7

No.	Themes from personal constructs	Description	Supporting quotes
1	*Leadership*	Take responsibility and stand up to do the right thing.	"…will tackle things that nobody else wants to tackle to improve care…is prepared to take on management, public/verbally." "…when the other doctors in the hospital aren't caring for the patients and doing what they should, she'll take on those other doctors." "…they also do it (manage), within their own smaller teams." "…these managers I don't think are working optimally. They're not taking responsibility."
2	*Medical/health advocacy*	Understand the context of the patient, take action to improve healthcare and to focus on the community by implementing preventative measures to increase health.	"So she was prepared to push the boundaries for patient care." "…he's very much trying to structure time for prevention outside the hospital." "…he makes his doctors go into clinics, even if it's busy in the hospital. They must just work harder in the hospital, but we will go out to the clinics to support the nurses and see the patients close to home, which is one of our principles in caring where we work." "They have very much a community focus." "…they will think about where does the patient live, where do they come from, what is their background, why did they maybe react like that." "…so here's a patient in my ward with a teenage pregnancy. Or in the clinic, so they see both clinic and hospital. What is going on in that community to make teenage pregnancies a problem? Do I need to go to schools?"

Table 4.7 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
2	*Medical/health advocacy*		"So they would go and speak in church…" "… in government… we have to focus on prevention."
3	*Medical professionalism*	Dealing with frustrations in a constructive fashion.	"The doctor swears in public… so the behaviour is not always professional." (-) "I have had reports that the doctor's behaviour with patients is not always positive." (-) "…they also speak their minds, but they also use a professional and constructive way of dealing with things and with their frustrations. That allows one to continue the conversation. Whereas after this one, there's nothing to be said."
4	*Stewardship*	The ability to improve things.	"…very outspoken, that isn't constructive. So whereas the other colleague I said speaks out for constructive, this one will sometimes say "oh that's rubbish, doesn't work like that." So it doesn't lead for an ability to improve or make things better." (-)
5	*Self-Care*	Realise what your limitations are, ask for help and take care of oneself to prevent poor work outcomes	"She doesn't ask for help… She won't say: can you please help, I'm feeling down, I'm not coping, can you do this. Whereas these two I have helped out in their districts, in their facilities. When it's tough, they ask 'oh please come and help'." (would not ask for help) "…to do her work, even if patients and systems are suffering." *Does she do it on her own? "*Yes…Or it doesn't get done." "I think she's burnt out. Which is why she reacts like that in meetings."
6	*Communication*	Give information across in a clear, unambiguous manner and using your words and body language to let patients feel safe, and not judged, to share their real worries.	"…she will be very clear and make sure they understand exactly what has to happen. Her colleagues in the facility know exactly, this is how we must manage this and that." "…when the patient came into the room he sat down and he asked them 'How are you, what's wrong?' and he just let them talk. The end result was that I think he understood very much what the problem was and managed it to give the correct diagnosis and treatment…" "…effective communication is also for me about body language and building rapport. So how do I, as a doctor, make people feel safe? So we have to, as doctors, create that environment where whatever you say, I'm not 'gonna' laugh, I'm not 'gonna' judge this. My body language must show that and encourage that." "…rapport and communication isn't just about language. It's actually the minority. Obviously to understand the details of what's going on, you may need a translator. But in terms of building that relationship of trust, that can be done. It's very interesting."

Table 4.7 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
7	*Clinical Reasoning*	Being able to rely on clinical skills, rather than medical test/investigation to come to conclusions.	"…sometimes in medicine there aren't clear cuts, because we are dealing with humans. And then people either do nothing or they fear they are doing the wrong thing."
8	*Efficiency*	Implementing processes and systems to increase efficiency	"…she, for example, has gone and investigated guidelines and set up systems where people are very clear. This is the observations we do, this is who we refer to for chronic diseases, she did a whole thing…"
9	*Working with people*	Building relationships, and collaborating with other healthcare professionals	"People who work together, recognise each other's specialties and contributions, deals with uncertainty, things like that." "So they consult and work closely with their nursing managers. He doesn't at all. So he's very hospi-centric, if I can put it that way. (-) "…he doesn't take their point of view into consideration. And his colleagues tell me…I think it's this thing of 'we are better than other healthcare professionals." (behave towards patients) "Very short. I haven't very often seen him, but when I have, he's very brief." "…she builds good relationships." "I do think he can be a bit authoritarian, but when he is that, it's not in a harsh way… It sounds like it's in a good way. Like he'll agree or say, 'now we will do this"… this is what must happen'." "…so in that meeting the audience is doctors, managers, but also physios, nurses, program managers, extra people. The doctor really allowed everybody an opportunity to present a patient and discuss their problems. It wasn't just that the doctors were talking – the doctors are actually the quietest. They were listening more. And the whole team was contributing to what they thought, for example, what the cause of death was, what were they 'gonna' do to make sure it didn't happen again… So although the doctor was the expert, you could say, because of being the highest qualified in the room, the person didn't ever actually say much… just facilitated."
10	*Deciding and initiating action*	Depending on the scenario making immediate or well thought out decisions and being able to take action.	"So they will come up with an idea, and then if you want they to kind of finish it off, you must be very clear that they are doing it." "They just get on and do it. They make decisions on their own, often without taking into consideration, let's say policies or the bigger effect on the team." "She won't make a quick decision, must be well thought out."

Table 4.7 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
10	*Deciding and initiating action* (continued)		"They like him because he makes, I think, decisions and he stands up for his doctors." "I do think he can be a bit authoritarian, but when he is that, it's not in a harsh way… It sounds like it's in a good way. Like he'll agree or say, 'now we will do this… this is what must happen.' …for me he's making decisions, he's going for it."
11	*Problem-solving*	Collaborate with relevant stakeholders and develop solution taking all relevant parties into account; take responsibility to solve a problem and actively trying to find solution.	"…they will just say 'no, sorry, there are no doctors, that's it. Nobody's coming to the clinics.'" "Whereas she would go and sit with the managers and say 'I have a problem with the doctors, how can we sort it out?'" "So those patients are usually booked a week, a month, two months in advance because the doctor only comes once a week. So when he comes to the clinic, we phone the clinic in the morning and he says "sorry we don't have enough doctors, we're not coming. So that's a lack of problem-solving. Because cancelling a problem is not solving a problem." (-) "…they also solve problems, it's just immediate and now. It's not a bigger picture scenario I think it depends on the situation." "Gosh, everything we do is problem-solving." "…he could just say 'that's not my problem'… But he's busy pulling together all the strings. He consulted with me, he consulted with the mental health board, and he was trying to really accommodate all aspects of care for the patient. So I think the one thing for me that was problem-solving was looking at everybody's side of the story. Trying to make a solution which would obviously benefit the patient. Taking the family's issues into consideration. I think the second thing is he was willing to ask for help. He wasn't just thinking his way; he was asking lots of different people how he could solve it." "So he and I, and one of his other colleagues discussed it and the patient came, and then he then spoke to the family and they agreed to keep the patient here sedated… So the ideal is to, and that's what this young doctor managed to do, is to get everybody on the same page."
12	*Teamwork*	Speaking appropriately to other team members and considering the viewpoints of all team members.	"My understanding is that they follow more of a team approach. Consider them part of the team and having valuable inputs… the nurses, that is."

Table 4.7 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
13	*Coping with pressure*	Being able to work effectively in a highly stressed environment.	"…if there's a crisis, and he works in a place where there are lots of very bad car accidents and multi-trauma patients, you want him. Because he can sort out 4 different patients that are bleeding and dying."
14	*Patient-centeredness*	Taking the patient's context and background into account during consultations.	"So where it's a broken bone, it's fine. Where the problem is a patient who has HIV and has to take lifelong therapy and needs to interact with the whole system every month to get their pills, it might not be so useful." (-) "…think about the context of where the patient is coming from." "…they will think about where does the patient live, where do they come from, what is their background, why did they maybe react like that." "…for me it's not about the doctor knowing it all. It's a partnership thing. So whatever you're saying and feeling and thinking, we can use to make you better. And if I'm judgemental, if I'm authoritarian, if I'm closed…"
15	*Business reasoning*	Directing activities and asking questions around things that affects the business and working to achieve the targets as set out by government.	"There's inadequate collection of data, which isn't his work, but it reflects on the work of him and his doctors, because it looks like they are not seeing enough patients. And he keeps on and on about it, because… his big thing is, number 1, because someone is not doing their job it looks like him and the doctors are not working. And number 2, their ability to get extra staff, equipment, budget is obviously less because it looks like they are not seeing patients…I haven't seen others with the same tenacity in dealing with issues that aren't under their control… like they will just say it's not their work. Which is true, it isn't his work but he's seeing the impact it's having on the team and on the bigger picture." "So for example, pap smears for women to stop them getting and detecting cervical cancer. So we are given targets in our sub-districts and clinics of: you have got so many women, you should do so many pap smears a year. It's the same with immunising children." "… we are assessed, we have a quarterly assessment, where we are assessed on whether we are following those targets." "But often it's more outcomes driven. So pap smears – it's how many. Other stuff, like you must cure 85% of your TB…" "…very clinical, which patients should have investigation for kidney failure… It is incredibly expensive. So I am like, you don't have to do it… It is not necessary, there's no evidence." "Normally you would just have to say, in our climate, we can't. So another example was, we want moms and babies to seen together, especially with HIV. And then, there's not enough staff, so she says no. The moms must be seen by a nurse, she's not seeing them. She's only seeing the

Table 4.7 (continued)

No.	Themes from personal constructs	Description	Supporting quotes
15	*Business reasoning* (continued)		babies. (-) Because the nurse can see the moms, they're not sick. But the principal is, we see families, we work together."
16	*Reflection*	Discussing patients that have died and key medical problems identified.	"...once a month they have a meeting where they discuss patients that have died, what happened, as well as key medical problems that have been identified."

Participant 7 (personal communication, October 19, 2015)

4.3 Linking Competencies Identified from Literature with the First-order Themes that Emerged from the Interviews

This chapter presents the data analysis from the interviews conducted as part of the research gathering process. A number of medical practitioner competencies were identified from the literature review in Chapter 2. Table 4.8 presents the linkages between the competencies identified from literature and the first-order themes identified from the interviews with participants during this research study.

Table 4.8

Linkages between the Competencies Identified from Literature and the First-Order Themes

Competencies from literature	First-order Themes from Interviews	% Linkages
Medical Professionalism	1. Medical professionalism 2. Emotional regulation 3. Reliable	69% of the themes identified from the interviews link to the competencies identified form the literature study in Chapter 2
Communicating effectively Information Gathering	4. Communication 5. Information Gathering	
Coping with pressure	6. Coping with pressure 7. Tolerance to discomfort	
Problem-solving	8. Problem-solving 9. Innovation 10. Clinical Reasoning 11. Rule following	
Effective decision-making	12. Deciding and initiating action	
Patient-centeredness	13. Servant-hearted 14. Patient-centeredness	
Health advocacy	15. Stewardship 16. Medical Advocacy 17. Leadership	
Lifelong learning	18. Lifelong learning 19. Reflection	
Working with people	20. Working with people 21. Teamwork 22. Being humble	

Table 4.8 (continued)

Competencies from literature	First-order Themes from Interviews	% Linkages
No competency identified	23. Self-Care 24. Self-awareness 25. Spirituality 26. Self-actualisation 27. Business reasoning 28. Efficiency 29. Task orientated 30. Patient Management 31. Teaching 32. Self-efficacy	31% of the themes identified from the interviews does not link to the competencies identified form the literature study in Chapter 2

Table 4.8 illustrates that 69% of the first-order themes identified from the interviews, relates to the competencies identified from literature. All the competencies that were identified via the literature study were confirmed during the interviews. However, 31% of the themes that medical practitioners utilise in their mental models of medical practitioner performance were not identified in the literature study. This demonstrates that additional competencies should be included in the partial South African Medical Practitioner Competency Model. In the following section the first-order themes identified from the interviews through thematic analysis, will be categorised into broader second-order themes.

4.4 Second-order Themes

Thirty-two distinct first-order themes have been extracted from the transcribed responses of the seven participants. The second-order themes have been constructed by examining the first-order themes for commonalities in the subject matter (as derived from the participants' responses). The first-order themes with similar meanings have subsequently been reconciled, to form broader thematic categories, referred to as second-order themes. Table 4.9 illustrates this reconciliation. A discussion of the construction of second-order themes from the first-order themes will be presented in Chapter 5.

Table 4.9

Conversion from First-order to Second-order Themes

First-Order Theme	Frequency[7]	Second-Order Theme
Communication	P1, P2, P3, P4, P5, P6, P7. (7)	Communicating effectively (12)[8]
Information gathering	P1, P2, P3, P4, P6. (5)	
Coping with pressure	P1, P2, P3, P4, P5, P6, P7. (7)	Coping with pressure (8)
Tolerance to discomfort	P4. (1)	
Medical professionalism	P1, P2, P3, P4, P5, P6, P7. (7)	Medical professionalism (10)
Reliable	P4. (1)	
Emotional regulation	P1, P3. (2)	
Patient-centeredness	P1, P2, P3, P4, P5, P6, P7. (7)	Patient-centeredness (13)
Information gathering	P1, P2, P3, P4, P6. (5)	
Working with people	P3, P5, P7. (3)	Working with people (10)
Teamwork	P1, P2, P3, P5, P6, P7. (6)	
Being humble	P5 (1)	
Lifelong learning	P3, P4, P5, P6. (4)	Lifelong learning (7)
Reflection	P3, P6, P7. (3)	
Self-care	P2, P3, P5, P6, P7. (5)	Self-care (15)
Self-awareness	P2, P3, P5, P6. (4)	
Spirituality	P5. (1)	
Self-actualisation	P2, P6. (2)	
Reflection	P3, P6, P7. (3)	
Business reasoning	P2, P3, P7. (3)	Efficiency (15)
Efficiency	P3, P4, P5, P6, P7. (5)	
Task orientation	P2. (1)	
Patient management	P2, P4. (2)	
Self-efficacy	P2, P3, P4, P6 (4)	

[7] In the frequency column, the particular participant who described the theme is indicated by coding them P1-P7 (Participant 1 to Participant 7) and the number in brackets represents the frequency of similar responses.

[8] The number in brackets in the second-order themes column, indicates the number of times the theme emerged in all of the interviews.

Table 4.9 Continued

First-Order Theme	Frequency[9]	Second-Order Theme
Problem-solving	P3, P4, P5, P6, P7. (5)	Problem-solving (24)
Innovation	P1, P2, P5. (3)	
Clinical reasoning	P1, P3, P5, P6, P7. (5)	
Rule following	P1, P5. (2)	
Information gathering	P1, P2, P3, P4, P6. (5)	
Deciding and initiating action	P3, P4, P6, P7. (4)	
Leadership	P2, P5, P7. (3)	Clinical leadership (10)
Teaching	P5, P6. (2)	
Medical/health advocacy	P1, P2, P4, P5, P7. (5)	Health advocacy (7)
Stewardship	P7. (1)	
Servant-hearted	P5. (1)	

After converting the 32 first-order themes to second-order themes, 11 second-order themes emerged. The rational for the groupings of the first-order themes into second order themes will be discussed in Chapter 5. *Information gathering* has been condensed to multiple second-order themes as the researcher believed that it could fit with multiple second-order themes. In future, the fit of the proposed second-order factor structure should be empirically evaluated so as to determine whether *information gathering* statistically significantly loads on all the second-order factors it had been currently linked to.

A job is a defined set of inter-related behavioural tasks, constraints and opportunities in the delivery of a product or service. The performance of a job incumbent should therefore first be evaluated in terms of the level of competence with which these job-specific behavioural tasks are completed. Medical practitioners are responsible for diagnosing and treating patients that suffer from some medical ailment. To do so they have to utilise scientifically valid insight in the psychological and physiological functioning of the person to diagnose the cause of the medical condition and to decide on an appropriate treatment. They also have to use technical medical

[9] In the frequency column, the particular participant who described the theme is indicated by coding them P1-P7 (Participant 1 to Participant 7) and the number in brackets represents the frequency of similar responses.

skills to diagnose the cause of the medical condition and to decide on an appropriate treatment. This aspect did not emerge as a distinct theme from the interviews with medical practitioners. It was nonetheless implicitly present in the narratives. It was almost as if medical expertise was assumed to be an obvious, self-evident, omnipresent (third-order) competency. It would be difficult to regard a medical practitioner competency framework as content valid if it did not make provision for task performance. In the current task performance (or medical clinical expertise) is seen as a third-order competency on which *problem-solving*, *medical professionalism, patient-centeredness* and *efficiency* load.

4.5 Summary

The data obtained from the interviews conducted on the sample seven family physicians practicing in public hospitals, was presented in this section. The interviews encompassed both the Repertory Grid Technique (RGT) and the Critical Incident Technique (CIT) to obtain data from different perspectives. Tables 4.1 – 4.7 consist of the prominent themes (first-order themes) that emerged from the interviews as well as supporting quotes from the participants. These themes reflect the mental models the family physicians hold regarding effective medical practitioner performance. Overall, 32 first order themes emerged and were condensed to 11 second-order themes portrayed in Table 4.9. These 11 second-order themes are discussed and corroborated with relevant literature in Chapter 5.

The behaviours elicited from the themes identified by the participants are converted to items and included in the developed South African Medical Practitioner Competency Questionnaire (Appendix C).

CHAPTER 5
DISCUSSION AND INTERPRETATION OF RESULTS

5.1 Introduction

In the previous chapter the personal constructs (themes) of each participant were reported and supported with specific quotes from the interviews. Each narrative, and the themes that were extracted from the narrative, reflect each participant's implicit theory about the competencies and outcomes that constitute successful medical practitioner performance. The aim of the study was to explicate these implicit theories so as to assist in the explication of connotative and denotative meaning of medical practitioner performance as a scientific construct. To improve the practical feasibility of conceptualising the connotative meaning of medical practitioner performance as a scientific construct in a manner that would allow the development of the Medical Practitioner Competency Questionnaire and eventually allow the development of a medical practitioner competency model, these 32 first-order themes were then further condensed to 11 second-order themes. The aim of this chapter is to discuss and interpret the reported results of Chapter 4 and to integrate these with the results derived from the literature and reported in Chapter 2. The relevance of the 11 second- order themes for the conceptualisation of the connotative meaning of medical practitioner performance as a scientific construct will be evaluated by attempting to corroborate their relevance through studies reported in literature and by logically evaluating the instrumentality of the extracted behavioural themes for achieving the outcomes that medical practitioners are held accountable for, identified in Chapter 2.

The interviews included both the use of the Repertory Grid Technique (RGT) and the Critical Incident Technique (CIT) to scrutinise what successful medical practitioner performance means. Using two techniques during the interviews ensured that a range of behaviours were investigated. The 11 second-order themes include the following:

1. *Communicating effectively (12)*
2. *Coping with pressure (8)*
3. *Medical professionalism (10)*
4. *Patient-centeredness (13)*
5. *Working with people (10)*
6. *Lifelong learning (7)*
7. *Self-care (12)*

8. *Efficiency (11)*
9. *Problem-solving (24)*
10. *Clinical leadership (10)*
11. *Health advocacy (7)*

These second-order themes firstly had to be formally interpreted and defined. Doing so, the researcher needed to obtain an accurate understanding of the personal constructs and the interpretive frameworks that the participants created to make sense of success and failure of medical practitioners. At the same time, however, the researcher also needed an accurate understanding of the personal constructs and the interpretive frameworks that were created from the study of the literature to make sense of success and failure of medical practitioners.

The identified second-order themes constitute latent behavioural dimensions that collectively constitute medical practitioner performance. These themes therefore are defined as medical practitioner competencies. The claim that each of the proposed latent behavioural dimensions form part of the medical practitioner performance construct, secondly, needed to be justified. The question therefore was whether a theoretical rationale can be established to justify the inclusion of each latent behavioural dimension in the multi-dimensional medical practitioner performance construct. The question was whether all the latent performance dimensions that were identified via the literature study and the qualitative analysis of the interpretative frameworks of the medical practitioners that were interviewed should be included in the constitutive definition of the multi-dimensional medical practitioner performance construct. The instrumentality of the identified latent behavioural performance dimensions in realising desired outcomes that medical practitioner are meant to achieve was firstly considered in the development of such a theoretical rationale. A competency deserves inclusion in the multi-dimensional medical practitioner performance construct only if a convincing logical argument can be formulated that the competency is a necessary condition for attaining acceptable standards on one or more outcome latent variables that medical practitioners need to achieve. A latent behavioural dimension can, however, have intrinsic value in its own right, without necessarily resulting in any high-valence outcome. If this were claimed for specific latent behavioural dimensions, a convincing argument then had to be presented as to why such a latent behavioural dimension has intrinsic value.

The claim that each of the identified latent behavioural dimensions form part of the medical practitioner performance construct were therefore justified by arguing their relevance through

studies reported in literature and by logically evaluating the instrumentality of the extracted behavioural themes for achieving the outcomes medical practitioners are held accountable for. This allowed for a more accurate and penetrating understanding of successful medical practitioner performance in the public healthcare sector. A more detailed explication of the connotative meaning of the medical practitioner construct will firstly contribute to the more effective evaluation, development, and hopefully management, of medical practitioner performance. This argument is based on the premise that if medical practitioners understand which behaviours, in addition to clinical knowledge and skills, are critical for medical practitioner success, they can align their behaviour with these identified behavioural themes, and hopefully improved patient healthcare outcomes. The development of the SAMPCQ will play a pivotal role in the identification of developmental areas. An explication of the connotative meaning of the medical practitioner construct will secondly allow the development and empirical testing of a comprehensive medical practitioner competency model.

Even though the researcher did not explicitly investigate the performance outcomes of medical practitioners in the empirical phase of the research study, the participants spontaneously explained why certain behaviours are important. The literature study presented in Chapter 2 also presented an argument on the outcomes that a medical practitioner needs to achieve. The researcher will report on these outcomes in the next section, where relevant, in an attempt to logically validate[10] the relevance of the competencies that were identified via the literature study and the qualitative analysis of the interpretative frameworks of the medical practitioners that were interviewed.

5.2 Interpretation and Sense-making of Themes

This section provides an interpretation of how the researcher comprehended the themes elicited from the participants. This comprehension is supplemented by relevant literature regarding medical practitioner behaviour. Formal definitions of each of the latent behavioural medical practitioner performance dimensions were subsequently developed and presented. The inclusion of each latent behavioural dimension in the multi-dimensional medical practitioner performance construct question was subsequently theoretically justified.

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[10] Here the concept of validity refers to the permissibleness of the claim/stance that specific competencies should form part of what one has in mind when talking about medical practitioner performance, because the competence on the competency in question is logically necessary to achieve acceptable standards on specific outcomes that a medical practitioner is meant to achieve.

5.2.1 Communicating effectively

All the participants confirmed that it is critical to *communicate effectively* as part of successful medical practitioner performance. The participants agreed that it is important that medical practitioners clearly articulate their message, whether it is verbal or written information. *Effective communication* relates to more than only spoken language , as it also refers to exhibiting open or approachable body language, and to maintaining eye contact with the patient in order to display genuine interest in the patient's 'story'. The medical practitioner should initiate the consultation with open-ended questions undertaking not to interrupt the patient's recital of events, and checking with the patient that key factors are being interpreted correctly.

Although *information gathering* was identified as a competency to stand on its own in the literature study (Chapter 2), the researcher understood from the participant narratives that this theme most probably forms part of multiple second-order themes, including communicating effectively. P1, P2, P3, P4, and P6 explained that *information gathering* pertains to obtaining wide-ranging and relevant information from the patient through *effective communication*. It also includes reporting this information in a comprehensive and accurate manner to relevant groups. Usually this information is captured in the medical practitioner's clinical notes or referral letters. This written information should be presented in a legible and structured fashion which will make it easy for other healthcare practitioners to understand.

The Medical and Dental Professional Board (2014), in translating Frank and Snell's (2014) competencies to the South African context, confirmed that medical practitioners ought to convey oral and written information about clinical encounters in an effective and accurate manner. Medical practitioners should establish rapport with patients, explain information accurately and effectively, and build relationships with families and communities from different cultural backgrounds.

The study of Finocchio et al. (1995) reported that 92% of their sample indicated that *communicating effectively* is very important. Medical practitioners should have good communication skills, be able to interact, be a good talker, and have people skills. They should be easy to talk to, maintain good eye contact, and good body language (Gruber & Frugone, 2011) when interacting with patients, families, the community and other healthcare professionals.

Patterson et al. (2000) confirmed that *communicating effectively* includes listening to patients, to understand them, and to interpret their body language. Medical practitioners should be able to use different questioning techniques to probe for information which leads to root cause. Their verbal and written communication should be clear and free of unnecessary medical jargon.

Subsequent to the previous argument the definition of the medical practitioner second-order competency *communicating effectively* can be defined as:

> Clearly articulates the message one wants to deliver, through one's words, writing and body language by using appropriate language or diagrams which the audience will understand; listening, without interrupting others; giving the patient the opportunity to communicate their 'story'; probing for the right information through respectively open and closed ended questions; attending to the words, writing and body language of other to comprehend the message they want to deliver.

Participants indicated that it is import to communicate effectively as it establishes *trust* (Medical and Dental Professional Board, 2014) between the patient and the medical practitioner. If the medical practitioner *communicates effectively* the patient will understand his/her disease and treatment plan more accurately which would lead to the patient adhering better to the treatment plan and achieve improved health outcomes. Giving the patient the opportunity to communicate their 'story' will allow the medical practitioner to gather all relevant information to make an *accurate diagnosis* and prescribe a negotiated treatment plan. Participants indicated the 'patient's story' is a phrase used to refer to the patient's context and his/her real concerns, which may extend beyond the medical problem. Well-written clinical notes expedite the hand-over and further treatment of patients which improves hospital efficiency. In addition, Participant 2 reported an increase in patient satisfaction if medical practitioner allows them to articulate their story as they feel that the medical practitioner addressed their needs.

5.2.2 Coping with pressure

All participants agreed that medical practitioners should be able to *cope with pressure* to be successful in their jobs. Most participants indicated that a substantial part of *coping with pressure* is to remain calm under stressful circumstances and to be able to effectively continue with one's work. One of the participants also indicated that to *cope with pressure* one should have a tolerance for discomfort.

Participant 1 and 2 revealed that coping with pressure starts by being well prepared for an emergency situation. Preparation, in this case, refers to having the resources available to deal with an emergency and to an extent to anticipate the possibility of an unexpected emergency.

Participants indicated that it is important for medical practitioners to remain calm while they are under pressure. Patterson et al. (2000) agrees that effective medical practitioner behaviour requires one to be calm under pressure. When an emergency occurs it is important that tasks are prioritised and that the medical practitioner remains focused on the most important tasks to save the patient's life. Participant 1 indicated that an example of a medical practitioner who can effectively *cope with pressure* is one who is able to use humour appropriately to lighten the atmosphere and attempt to alleviate the pressure for others. Medical practitioners will frequently be in situations that would require them to *cope with pressure*. However, to continuously *cope with pressure* requires resilience to be able to adapt to any situation and being able to deal with similar situations in the future. Participant 4 indicated that medical practitioners should demonstrate a tolerance to discomfort, which in essence can be translated to *resilience*.

Participants reported that in order for medical practitioners to effectively *cope with pressure* they ought to be aware of their own limitations, be willing to ask for help and actively delegate tasks. Patterson et al. (2000) confirmed that it is required of medical practitioners to be able to delegate effectively.

Considering literature and the different viewpoints of the participants the definition of the medical practitioner competency *coping with pressure* was slightly adapted from the definition in Chapter 2 and defined as:

> Remaining calm while working under stressful conditions and to be able to take control of the situation to remain effective; prioritising activities and delegate tasks to other healthcare professionals.

Not only emergency situations demands medical practitioners to *cope with pressure*. Sanchez-Reilly, et al. (2013) state that both personal and work characteristics contribute to medical practitioners experiencing increased pressure. Personal characteristics include being inexperienced, lacking a sense of personal control over events, and attributing success to chance instead of personal accomplishments. Work factors include work overload (including large patient volumes, insufficient resources, or feeling poorly managed), lack of control over one's work environment, having the bulk of one's time at work spent on tasks inconsistent with one's career goals, and high levels of work-home interference. Participants have indicated that

in South Africa the medical facilities are often under-staffed and under-resourced resulting in increased levels of pressure and frustration. It is inevitable that medical practitioners would have to deal with high levels of pressure throughout their career.

In Chapter 2 it was argued that *coping with pressure* is required to achieve *patient well-being*. After exploring this construct with a South African sample of medical practitioners, the researcher is of the opinion that *coping with pressure* is also important for effective *decision-making*, *problem-solving*, and *medical professionalism*. If one does not effectively *cope with pressure* then one can become so emotionally stressed that it brings forth a state of immobilisation, preventing the medical practitioner from making effective decisions or successfully solving problems. Participants indicated that medical practitioner's professional behaviour is affected when they do not cope well under pressure. Such inappropriate behaviours could include shouting, use of inappropriate language and throwing objects around, or at people. It is proposed that a number of outcomes of medical practitioner performance are affected by their ability to *cope with pressure*. Considering the nature of a medical practitioner's job, the relation between *coping with pressure* and other performance dimensions is undeniable. *Coping with pressure* is a vital construct constituting medical practitioner performance and warrants inclusion in the competency model of medical practitioner performance.

5.2.3 Medical professionalism

Participants 1 to 7 indicated that professionalism should be a prominent theme in medical practitioner behaviour. Medical practitioners should treat people from different cultures and socio-economic backgrounds with the same respect. Participants reported that ethics and integrity forms a substantial part of professionalism. Professionalism also includes being punctual, reliable, keeping one's word and being easily accessible while on duty.

The participants alluded to the importance of being polite and using appropriate language when dealing with patients, families and other colleagues. Even though medical practitioners encounter frustrating and high pressure situations, it does not permit them to shout or curse at a person. Professionals should be able to control their emotions.

Finocchio et al. (1995) reported that 77% of the sample indicated that counselling on ethical issues are very important. Frank and Snell (2014) confirmed that *medical professionalism* includes applying best practises and behaving ethically. They argue that medical practitioners

should demonstrate a commitment to the profession by adhering to standards and participating in physician-led regulation.

Gruber and Frugone (2011) confirmed the participants' suggestions that medical practitioners should be punctual, respectful and that they should behave ethically. *Medical professionalism* includes being open and honest with patients and demonstrating a level of respect and care for all people, including people from different cultures and socio-economic standing. This theme encompasses awareness of legal/ethical implications of actions (Patterson et al., 2000). The definition of *medical professionalism* provided in Chapter 2 is redefined as:

> Applying specialist and detailed expertise to all patients; treating all patients, colleagues and other people with respect and dignity; being punctual and accessible while on duty; displaying integrity, and complying with ethical and legal standards.

Being professional increases patient *trust* and openness to share information more willingly, which could lead to improved diagnosis and treatment plans, as well as improved *adherence to treatments* from the patient's side.

The foregoing discussion illustrates that ethics is an integral, inseparable component of (Finocchio et al.,1995; Frank & Snell, 2014; Gruber & Frugone, 2011; Patterson et al., 2000) medical professionalism.

5.2.4 Patient-centeredness

All participants made reference to *patient-centeredness* as a dominant theme pertaining to medical practitioner performance. In describing *patient-centeredness* patients illuminated the importance of understanding how the patient experiences his/her disease, having empathy for patients, caring for patients and understanding the patient's context. To identify a treatment plan for the patient the medical, as well as socio-economic, factors should be taken into consideration.

Medical practitioners should "perform a patient-centred clinical assessment and establish management plans" (Frank & Snell, 2014, p. 16). It was established that serving the patient involved physical protection and psychological protection, therefore a holistic approach to *patient-centeredness* (Duncan et al., 2003). Participants supplemented the notion of a holistic approach by adding that the medical practitioner should not only be interested in a patient's medical problem, but also in his/her context which includes, amongst others, socio-economic factors. This will aid the medical practitioner's understanding of the patient's problem and

concern. In developing a treatment plan for the patient the medical practitioner should include the patient and the family as partners (Finocchio et al., 1995; Patterson et al., 2000).

The study of Gruber and Frugone (2011) confirmed that a medical practitioner should show interest in the patient, show he/she cares about the patient and understands the feelings and background of the patient. Patients perceive the medical practitioner as patient-centered when he/she "asks for the history and background of patients' ailments; tries to relate to them; through body language and supportive remarks; shows interest and sympathy as opposed to being bored and dismissive; and acts in an accommodating and compassionate manner" (Gruber & Frugone, 2011, p. 501). The subject matter experts elaborate on these behaviours by means of a sub-theme, *information gathering*, dictating that medical practitioners should ask open-ended questions to hear the patient's full 'story' and to be attentive to cues from the patient's body language.

Respondents of research done by Gruber and Frugone (2011) indicated that medical practitioners should be friendly by being warm, courteous, and kind. Patients prefer that the medical practitioner smiles, is welcoming, start the conversation during consultations, and is open minded. This notion was confirmed in the interviews where a participant indicated that medical practitioners should welcome the patient and smile, to make them feel comfortable in the consultation. Participant 1 proposes that *trust* is established in the first few seconds of a consultation with a friendly smile and Patterson et al. (2000) agrees that medical practitioners ought to establish an atmosphere of *trust* and confidence. Duncan et al. (2003) reported that medical practitioners should establish good quality relationships with patients.

Participants cautioned against being too task orientated and subsequently compromising on *patient-centeredness* which constitutes less effective medical practitioner performance. Effective and efficient treatment of patients is an important factor and should not be discarded. In the short term customer satisfaction will be higher if patient waiting times for medical examinations are minimised. Medical practitioners achieve reduced patient waiting times by being *task orientated* and thus focussing on getting the medical problem resolved as rapidly as possible. However, long-term patient satisfaction constitutes positive patient health outcomes which are achieved by a trusting relationship between the patient and the medical practitioner. Participants indicated that this trusting relationship is established by the medical practitioner being *patien-centered*. Part of being *patient-centered* includes listening to the patient's 'story' and also probing to obtain information regarding the patient's socio-economic context in addition to

information relating to the medical problem. By gaining a picture of the patient's representation of the problem, a more effective treatment plan can be negotiated. If the patient feels that the medical practitioner understands and cares for him/her, they are more likely to *trust* the medical practitioner and continue with the treatment plan, leading to better health outcomes.

Ultimately medical practitioners should balance being task orientated with *patient-centeredness* to gather all the relevant information and to establish *trust* to achieve better patient health outcomes. Participant 3 suggested that, depending on the clinical problem, medical practitioners should be able to identify on which patients they should spend more of their time on, and on which patients they can spend less time on. Making this judgement requires excellent clinical reasoning and quick *decision-making* skills. It is thereby not implied that clinical reasoning and quick *decision-making* form part of the *patient-centeredness* competency. Rather that the prominence and importance of the *patient-centeredness* competency depends on the context. The definition defining the medical practitioner competency *patient-centeredness* in Chapter 2 remains relevant:

> Displaying compassion, empathy, and responsiveness to the needs, values, and expressed preferences of the individual patient.

In conclusion, it was identified that empathy and sensitivity lies at the heart of *patient-centeredness* (Finocchio et al., 1995; Gruber & Frugone, 2011; Patterson et al., 2000). Patients should be treated with sensitivity and personal understanding. A holistic approach should be taken in consulting with the patient and the treatment plan should be negotiated with the patient which will lead to better health outcomes.

5.2.5 Working with people

P1, P2, P3, P5, P6, and P7 refer to the importance of regarding the competency *working with people* as an important constituent of effective medical practitioner behaviour. These participants all described teamwork as an important component of *working with people*. P3, P5 and P7 referred to *working with people* as -a first order theme and participant 5 elaborated on this theme by stating that it is important to be humble when *working with people*.

Participants indicated that to perform effectively medical practitioners should be able to work with other healthcare professionals in a team and acknowledge them as equals (Finocchio et al., 1995). In the CanMEDS framework, Frank and Snell (2014, p. 16) agree with this notion by dictating that medical practitioners should "work effectively with other physicians and other

health care professionals". Medical practitioners should be able to work with inter- and intraprofessional colleagues to prevent misunderstandings, manage differences, and resolve conflict. Swanwick and McKimm (2011) indicate there may also be a need to foster interprofessional communication and to develop co-operation and collaboration within and across organisations.

Medical practitioners should effectively hand over care to appropriate health care professionals. Participants explained how important it is to make accurate referrals to other medical professionals and also to hand over patients in an effective manner to alleviate the pressure and workload from the health care practitioners that will take over the next shift. In working with colleagues and other healthcare professionals it is important to be *humble*, not to see oneself as superior to others and to really try and understand the views and opinions of others.

Teamwork includes seeking help and support from team members, as well as in turn providing help and support to team members (Patterson et al., 2000). If the medical practitioner is familiar with the team members and what their capabilities are, the team can work much more effectively together to achieve success. Medical practitioners should take other colleagues or team members into consideration when making decisions that may affect them. Patterson et al. (2000) agreed stating medical practitioners should view themselves as part of a larger organisation, able to compromise and use resources efficiently.

The subject matter experts noted that medical practitioners should be able to effectively build relationships with other professionals, patients and their families. Frank and Snell (2014, p. 16) confirms by asserting medical practitioners ought to "establish professional therapeutic relationships with patients and their families."

Working with people requires being able to work with people from different cultures. Finocchio et al. (1995, p. 1026) supplements this argument by stating that medical practitioners should understand diverse cultures. Medical practitioners should participate effectively and comfortably in multicultural, interprofessional and transprofessional teams, as well as teams in other contexts (the community included) (Frank & Snell, 2014). As a result of South Africa's diverse culture, this is an important consideration for medical practitioners practicing in this country.

Participants elaborated by explaining that *working with people* include treating others with respect and using appropriate language when communicating with them. It also includes

interacting with people in a way that is fun, to show appreciation and to use humour appropriately.

Medical practitioners are continuously *working with people*, whether it is patients, their families, or other healthcare practitioners. The medical practitioner competency *working with people* is slightly redefined from the definition originally provided in Chapter 2 as:

> Showing respect for the views and contributions of other team members; collaborating with healthcare workers from other medical professions and viewing yourself as equal to others; listens, supports, cares and appreciates others; consults others and shares information and expertise with them; builds team spirit and reconciles conflict; adapts to the team and fit in well.

Working effectively in a team will probably lead to better health outcomes for the patient as working together creates synergy and therefore patients can be assisted more effectively. Being *humble* when interacting with others will let patients and colleagues feel more comfortable in one's presence and builds *trust*. If patients feel comfortable and not judged by the medical practitioner they will share what their real issue is, possibly leading to a better diagnosis and treatment plan.

5.2.6 Lifelong learning

P3, P4, P5, P6, and P7 emphasised the importance of *lifelong learning* to maintain clinical skills and knowledge to practice, and continuously practice effectively as a medical practitioner. Participants explained that *lifelong learning* is as much reflection as it is reading articles and attending articles to remain current in terms of clinical knowledge and skills.

Participants proposed that *lifelong learning* is rooted in a mentality of critically reflecting on one's own behaviour and patient outcomes. The reflection process entails looking back on what was done, identifying what worked, and what did not work. Medical practitioners should ask questions regarding practice, critically evaluate and interpret information and sources, and consider the application of the information (Medical and Dental Professional Board, 2014). It is suggested that medical practitioners that display competence on the *lifelong learning* competency, on a regular basis, reflectively discuss patients with other healthcare professionals in a morbidity and mortality session to elicit formative feedback from colleagues. This process should assist in identifying gaps in the medical practitioner's knowledge, which would tend to stimulate those that display competence on this competency to engage in learning to close that

knowledge gap. Learning could include discussions with other professionals, reading articles or attending courses.

Taking into account the rapid change that takes place in medical technology and new medical discoveries it is imperative that medical practitioners continuously update their skills to keep them up to date with change in the industry and to remain effective practitioners. In a study done by Finocchio et al. (1995) 83% of the medical practitioners who participated in the study indicated that *lifelong learning* was very important. Frank and Snell (2014, p. 25) dictated that medical practitioners should display "continuous improvement and enhancement of their professional activities through ongoing learning". Patterson et al. (2000) identified learning and personal development as a significant competency for the job of a medical practitioner. This refers to the medical practitioner's ability to constantly update his/her clinical skills and knowledge.

Patterson et al. (2000) eluded to maintaining clinical knowledge and expertise as an important competency fundamental to the role of a medical practitioner. This competency encompasses keeping abreast of new developments and maintaining knowledge of current practices. In South Africa *lifelong learning* is required from the medical practitioner regulatory board (HPCSA) where medical practitioners ought to gather a certain amount of Continuous Professional Development (CPD) credits in a year by reading articles or attending courses to maintain their registration.

The current study defines the medical practitioner competency of *lifelong learning* as:

> Reflecting on work that was done, identifying knowledge and skill gaps and taking the necessary action to improve one's knowledge or clinical skills on a continuous basis to remain competent.

In the literature review it was proposed that medical practitioners require *lifelong learning* to achieve *medical professionalism*. The qualitative insight gained from the interviews with South African medical practitioners convinced the researcher to postulate that *lifelong learning* might also be important to make an *accurate diagnosis* and to develop a *proper treatment* plan. Being up to date with the latest medical news might aid the medical practitioner with the knowledge to better diagnose a medical condition, and being familiar with the latest treatment methodologies may assist in developing a better treatment plan for the patient. Both these outcomes stemming from *lifelong learning* may be advancing *patient well-being*. Considering these outcomes,

literature and South African professional regulation, *lifelong learning* warrants an important construct pertaining to medical practitioner performance.

5.2.7 Self-Care

P2, P3, P5, P6, and P7 mentioned *self-care* as a significant behavioural dimension constituting medical practitioner success. This theme was not previously identified from literature and did not form part of the competency model proposed in Chapter 2. However, in the interviews participants explained that *self-care* is important for medical practitioners to remain successful. Participants noted that *self-care* includes *self-reflection, self-awareness, taking care of one's emotional and physical wellness, achieving self-actualisation,* and *spirituality*.

As part of *self-awareness* participants mentioned that medical practitioners should be aware of their emotions, including what emotions they are experiencing and what triggers those emotions (Kirby & Lück, 2014). They should also be aware of their limitations and competence. Patterson et al. (2000) support the idea that medical practitioners should be aware of their limitations. It is argued that in order to gain emotional *self-awarenes*, medical pracititoners should reflect on their behaviour and emotions. Sanchez-Reilly, et al. (2013, pp. 4-5) define self awareness as "a clinician's ability to combine self-knowledge and a dual-awareness of both his or her own subjective experience and the needs of the patient, has been identified in the field of psychology as the most important factor in the psychologists' ability to function well in the face of personal and professional stressors."

Participants emphasised that *self-care* includes *taking care of oneself* in terms of physical as well as emotional well-being. Medical practitioners should get enough rest, talk about their experiences, achieve a work-life balance, and have something to live for outside of the working context. In literature there is agreement about the importance of *self-care* and medical practitioners. Saakvitne and Pearlman developed a model (as cited in Benson, 2014) to help medical practitioners to explore the situation and develop solutions. Benson (2014) suggests this model serves as a foundation for good *self-care* for medical practitioners. The model includes strategies for awareness, balance and connection on a personal and organisational level. Awareness entails proactively instigating *self-care* initiatives and being aware of your emotions, and state of well-being. Balance requires reviewing your lifestyle and considering healthy options and ultimately to achieve a work-life balance. Lastly, connection includes nurturing positive relationships with family and friends and debriefing by talking to others about one's experiences. Gruber and Frugone (2011) and Patterson et al. (2000) agree that medical

practitioners should talk about their experiences and not keep their emotions 'bottled-up'. *Self-care* has the potential not only to minimize the potential harm from burnout, compassion fatigue, and moral distress, but to promote personal and professional well-being (Sanchez-Reilly, et al., 2013).

The subject matter experts that were interviewed elaborated by stating that caring for oneself also includes *self-actualisation* where medical practitioners should allow themselves personal growth and to reach their full potential in their careers. *Spirituality* was also identified as a theme of *self-care* referring to reflecting on the significance and meaning of life.

After considering the participant's perceptions and combining it with literature, the medical practitioner competency of *self-care* is defined in this research study as:

> Being aware of one's inner state and implementing the necessary strategies to achieve emotional and physical well-being for oneself.

It is recognised that in the South African public healthcare sector medical practitioners work in stressed environments. This is a result of the type of work being done, the workload, and also the pervasive systemic deficiencies that often hinder the successful performance of their medical duties. It is in addition well-known that medical practitioners experience distress and grief in response to their patients' suffering. These factors can compromise the medical practitioner's personal well-being and such factors may lead to burnout, moral distress and compassion fatigue (Sanchez-Reilly, et al., 2013). Participants warned that medical practitioners should practice *self-care* to prevent and manage burnout. Not taking care of oneself could lead to poor clinical decisions which adversely affect patient care. Not being aware of your emotions and limitations could impair one's ability to effectively *cope with pressure*. Being burned out may result in a decrease in *patient-centeredness* as the depersonalisation or cynicism dimension of burnout serves as a coping mechanism against emotional exhaustion by become emotionally more distant. Medical practitioners should practice *self-care* to better *cope with pressure*.

Medical practitioners work in high-stress environments and need to take care of themselves before they can take care of their patients. Not taking care of themselves could severely impact patient care and therefore this competency is an essential behaviour in achieving medical practitioner performance success.

5.2.8 Efficiency

P2, P3, P4, P5, P6, and P7 reported that *efficiency* is a noteworthy theme when considering medical practitioner performance in the public healthcare sector of South Africa. This theme did not form part of the competency model derived from literature in Chapter 2 (see Figure 2.6), but was illuminated by participants as a significant theme pertaining to medical practitioner performance. *Efficiency* as a second-order theme is constructed with five first-order themes, including *business reasoning, efficiency, task orientation, patient management,* and *self-efficacy*.

In Chapter 2 it was argued that medical practitioners are not only responsible for their own success, but also for the success of the hospital. Although public healthcare facilities are not profit driven, their financial stability is vital for successful service delivery and they still have ensure that they gain maximum benefit from their available financial resources. Medical practitioners are to a large extent responsible for managing the hospital operational costs, as medical practitioners are the authority behind requests for expensive medical tests, referring patients to specialists, and so forth. Patterson et al. (2000) state that medical practitioners should, as part of larger organisation, be able to compromise and use resources *efficiently*. Hence, medical practitioners should display *business reasoning* to organise work in such a manner that systems and resources are applied in the most effective manner possible. The Government sets cost targets to all healthcare facilities and medical practitioners should ensure that they are following the necessary steps to achieve the prescribed targets.

Participants alluded to the importance of efficiency by effectively using resources and working at an acceptable pace to minimise customer waiting times. Duncan et al. (2003) refer to *efficiency* as the duty of fairness to all patients and not for economic reasons. Since South African public healthcare facilities are under immense financial pressure due to funding shortfalls, *efficiency* in the South African context, refers to both the duty towards patients for effective treatment and also to the duty of effectively managing the available resources in order to treat all patients. Effective medical practitioners take the success of the organisation as a whole into consideration and contribute towards organisational efficiency. Frank and Snell (2014, p. 13) elaborate by stating that medical practitioners should “actively participate, as an individual and as a member of a team, in the continuous improvement of healthcare quality and patient safety”.

As mentioned in section 5.2.4 medical practitioners should, however, not compromise *patient-centeredness* in their striving to act effectively and task-orientated. Nonetheless, task-orientation

was described as an important component of efficiency. Medical practitioners should display the propensity to decide when it is necessary to spend more or less time on a patient, depending on the problem at hand.

Participants described medical practitioners as *efficient* if they were able to manage the patients well. Managing a patient includes holding the patient accountable to adhere to their part of the treatment plan and clearly defining the boundaries of what they can and cannot offer the patient.

An interesting theme the subject matter experts made mention of is *self-efficacy*. It was explained that a person with a low *self-efficacy* will doubt his/her own ability and consequently request unnecessary medical tests or referrals resulting in resources being used inefficiently.

The medical practitioner competency of medical practitioner *efficiency* may be described as:

> Using resources effectively; contributing to the larger organisation's success; not compromising patient care for profits; and believing in one's own opinion.

Working more *efficiently* may constitute a decrease in waiting time for the patients which would possibly result in an increase in *patient satisfaction* (Gruber & Frugone, 2011). *Patient well-being* may also be positively affected if medical practitioners work more *efficiently*, as they may assist a patient who would not have been able to consult with a medical practitioner if the they were less effective with the treatment of previous patients.

5.2.9 Problem-solving

All the participants alluded to the significance of *problem-solving* as part of successful medical practitioner performance. Participants described *problem-solving* as comprising of six first-order themes, including *problem-solving*, innovation, clinical reasoning, rule-following, *information gathering* and deciding and initiating action. The different first-order themes are required to solve different problems.

Participants described *problem-solving* as assessing available information in a calm and structured manner and to confidently deriving conclusions on how to solve a problem. In order to assess all the information the medical practitioner should be able to *gather information* effectively. Gathering all required information includes consulting or assessing with various sources including people, literature, organisations, or system knowledge. Hence, gathering information is also a legitimate sub-theme of *problem-solving*.

The subject matter experts that were interviewed reported that medical practitioners should often take responsibility and find solutions to challenges that arise that are not their direct responsibility. Elaborating on this idea, participants indicated that in the interest of the larger system, medical practitioners should take the initiative to take action in order to resolve a problem although that might be someone else's direct responsibility. Ensuring *efficiency* and good patient care often requires pro-active *innovation* by the medical practitioner, and not relying on other parties to resolve the inefficiencies which are impacting effective patient care. It is about going above and beyond one's duties and taking responsibility (Gruber & Frugone, 2011) for problems, even though it is not expected of the medical practitioner. *Innovation* includes the questioning and adaptation of conventional procedures, by changing protocols to ensure better patient care and *hospital efficiency*. In a resource scarce environment the medical practitioner should often be innovative in using the available resources and applying it in the most appropriate way.

Participants indicated *clinical reasoning* are specifically required to solve medical problems. Medical practitioners should display competence at developing a sufficiently large enough array of hypotheses on what the underlying causes of the symptoms are so as to allow one to make an *accurate diagnosis* and to *prescribe an appropriate treatment* plan. Medical practitioners should therefore display clinical competence in diagnosing and treating medical conditions and be able to rely on clinical skills, rather than medical test/investigation to come to successful conclusions. *Clinical reasoning* includes accurately and confidently diagnosing through theorising and investigation of the phenomenon, coming to accurate clinical conclusions with confidence, even though the diagnosis cannot be confirmed with a scientific test. *Clinical reasoning* could enhance or deteriorate *efficiency*. Medical practitioners with good *clinical reasoning* will make more appropriate use of resources as they do not require as many medical tests or referrals to specialist to indicate what the underlying medical problem is. Participants indicated that more experienced medical practitioners are generally better at *clinical reasoning* than less experience medical practitioners. It was reported that applying good *clinical reasoning* is also influenced by the confidence one has in one's clinical reasoning ability. Medical practitioners who are not as confident in their clinical reasoning ability will be more likely to request additional medical tests, to ask for help and to refer their patients inappropriately.

Although it was previously mentioned that medical practitioners should adhere to rules and regulations, participants have indicated that medical practitioners should sometimes be able to break or bend a rule if there is enough evidence that it may contribute to patient health

outcomes. It has been reported that if a patient life could be saved a medical practitioner should be willing to take the risk of saving that patient's life even though it might go against certain rules and regulations. The skill comes in with knowing when taking a risk to save a patient triumphs the consequences of not complying with a certain rules or standards.

A problem cannot be solved if a decision has not been taken and action not initiated. In Chapter 2 effective *decision-making* has been identified as a distinct theme that forms part of the medical practitioner competency framework. However, in this research study participants described *decision-making* as a sub-theme of *problem-solving*. For the purposes of this study deciding and initiating action will be described as a sub-theme of *problem-solving* rather than a separate theme contained in the competency model. Participants described *problem-solving* as considering all the available information and considering the implications of the decision before making a decision. It includes determining what the most efficient way to deal with a problem is, containing it and to take action to solve it as soon as possible. Depending on the scenario, medical practitioners occasionally have to make quick calculated decisions and be able to take immediate action (Gruber & Frugone, 2011).

In a study conducted by Finocchio et al. (1995) 89% of the participants reported that *problem-solving* is a very important competency for medical practitioners to achieve effective performance. One of the participants in this research study stated that everything medical practitioners do is *problem-solving*. The definition for the medical practitioner competency of *problem-solving* is slightly adapted from its original definition in Chapter 2 and defined as:

> Recognising when problems exist, gathering and analysing all relevant information and identifying different solutions to solve the problem with the available resources and time.

Ultimately, *problem-solving* skills are essential for medical practitioner performance as they are constantly faced with medical problems, for which they are expected to come up with a solution. *Problem-solving* is required to accurately diagnose the medical condition and to prescribe treatment for the patient. In public hospitals where there are often limitations on medical technologies, lack of sufficient room for patients and staff shortages, *problem-solving*, or more specifically *innovation*, is required to overcome these challenges.

5.2.10 Clinical leadership

P2, P5, P6, and P7 referred to *clinical leadership* as essential for effective medical practitioner performance. In Chapter 2 leadership was encapsulated within the competency of *health (medical) advocacy*. However, participants and additional literature revealed that *clinical leadership* is vital and warrants a separate place in the medical practitioner competency model for medical practitioners in South Africa. Participants further reported that medical practitioners should play the role of a mentor or a teacher for other medical practitioners and healthcare professionals.

During the interviews it was reported that one cannot be a good medical practitioner if you are not a good leader. Swanwick and McKimm (2011) asserts that the role of medical practitioners as leaders and managers has become increasingly important across the globe. Participants described being a leader as someone who will take the lead in activities and delegate activities in a calm way to other team members. A true leader takes responsibility above and beyond their duties and stand up to do the right thing. Garrubba, Harris, and Melder (2011) supplement this argument by stating that clinical leaders should influence peers to act and enable clinical performance, they should provide peers with support and motivation, they should play a role in enacting organisational strategic direction, and lastly, challenge existing processes.

Participants indicated that *teaching* is a crucial part of being an effective leader for medical practitioners. Experienced medical practitioners ought to play the role of a mentor and teacher for other health care professionals. A part of teaching includes the sharing of knowledge or the sharing of interesting and unusual medical phenomena with other healthcare practitioners. Frank and Snell (2014, p. 25) assert that medical practitioners should “facilitate the learning of students, residents, other health care professionals, the public, and other stakeholders”. In the CanMEDS framework teaching is categorised under the role of a scholar and not a leader. However, in this study the participants did not sufficiently refer to this theme to substantiate its distinct inclusion in the medical practitioner competency framework. It was rather described as a way of supporting, developing and assisting other medical professionals. The role of scholar corresponds more closely to what emerged as *lifelong learning* in the current study.

The Clinical Leadership Competency Framework (CLCF) developed in the United Kingdom “describes the leadership competences that clinicians need to become more actively involved in the planning, delivery and transformation of health and social care services” (NHS Leadership Academy, 2011, p. 6). The model portrays five domains (see Table 5.1) which are all equally

important for medical practitioners to be competent and to improve the quality and safety of health and care services. These five domains are divided into four categories, referred to as elements, and each of these elements is further divided into four competency statements (behavioural anchors) which describe the activity or outcomes all medical practitioners should be able to demonstrate. Table 5.1 illustrates the five domains and the related elements.

Table 5.1

Clinical Leadership Competency Framework

Domains	Elements
Demonstrating Personal Qualities	Developing selfawareness Managing yourself Continuing personal development Acting with integrity
Working with Others	Developing networks Building and maintaining relationships Encouraging contribution Working within teams
Managing Services	Planning Managing resources Managing people Managing performance
Improving Services	Ensuring patient safety Critically evaluating Encouraging improvement and innovation Facilitating transformation
Setting Direction	Identifying the contexts for change Applying knowledge and evidence Making decisions Evaluating impact

(NHS Institute for Innovation and Improvement and Academy of Medical Royal Colleges, 2011)

Several of these identified domains link with the second-order themes identified in this study. *Demonstrating personal qualities* links with *medical professionalism* as well as *self-care*. *Working with others* related to *working with people* while *managing services* and *improving services* relates to *efficiency*.

Developing *clinical leadership* among medical practitioners is of critical importance (Daly, Jackson, Mannix, Davidson, & Hutchinson, 2014). It is asserted by Swanwick and McKimm (2011) that clinical teachers working both in higher education and in practice have a key role to

play in leadership development. Pozner and Kouzes (1996, p. 4) agrees that leadership is an "observable, learnable set of practices" and therefore can be developed.

From the participants' narratives the medical practitioner competency of *clinical leadership* can be defined as:

> Taking the lead and delegating activities to team members in a calm way; taking responsibility above and beyond one's duties and standing up to do the right thing.

Clinical leadership was not defined as a predominant competency in the competency model developed in Chapter 2, and therefore it was not deliberately explored during the Critical Incident section of the interview conducted as part the current study. Nevertheless, participants still referred to leadership in their utterances during the interview, permitting further exploration of the concept of clinical leadership in the public healthcare sector of South Africa in future research studies.

The researcher argues that *clinical leadership* is necessary to ensure hospital efficiency, to display *health advocacy*, to direct other healthcare professionals, to ensure patient care, and to manage oneself. Effective clinical leadership has been linked to a wide range of functions. It is a "requirement of hospital care, including system performance, achievement of health reform objectives, timely care delivery, system integrity and efficiency, and is an integral component of the health care system" (Daly et al., 2014, p. 76). The role of a leader is defined by Frank and Snell (2014, p. 19) "as leaders, physicians develop a vision of a high-quality health care system and, in collaboration with other health care leaders, take responsibility for effecting change to move the system toward the achievement of that vision".

5.2.11 Health advocacy

P1, P2, P4, P5, and P7 mentioned health (medical) advocacy as an important competency constituting medical practitioner effectiveness. Participant 5 indicated '*medical advocacy*' does not exist; hence, the correct term '*health advocacy*' will be used. In describing *health advocacy* participants alluded to stewardship which refers to the preference to improve the current status quo and servant-heartedness, referring to serving the underserved.

Participants explained that *health advocacy* is about having a community perspective to health. Participants reported medical practitioners should stand up and initiate action against any factors that threaten patient/community health.

Medical practitioners should be cognisant to patterns of poor health presenting in multiple patients and taking the necessary steps to investigate the trend and underlying causes further. Participants explained that should health risks or problems be identified, the medical practitioner should take appropriate action (Frank & Snell, 2014). Taking action may include developing interventions and implementing it by themselves, or directing action to be taken by other healthcare practitioners, relevant public servants, or organisations.

Participants described *health advocacy* as also being the 'voice' for those who do not have a voice. Advocating for better health systems or resources to ensure improved health for individuals, groups and communities. Medical practitioners should implement preventative measures to increase health (Finocchio et al., 1995; Gruber & Frugone, 2011).

Descriptions of the *health advocacy* competency by participants are in line with the definition presented in Chapter 2. The medical practitioner competency of *health advocacy* is defined as:

> Responsible use of one's expertise and influence to advance the health and well-being of individuals, communities, and populations.

Medical practitioners should be community leaders where measures are proactively implemented to prevent certain poor health and disease manifestations amongst individuals. *Health advocacy* leads to *patient well-being* and also to *efficiency*. If preventative measures are taken to decrease medical problems, healthcare facilities would likely be less crowded and patients can be given better service delivery with more available resources.

5.3 Proposed partial South African Medical Practitioner Competency Model

Chapter 2 presents the postulated partial Medical Practitioner Competency Model derived from literature. After in-depth interviews were conducted with seven family physicians (specialised general practitioners), in a supervisory role at a public hospital, 32 first-order themes were identified. Table 4.8 illustrate that 31% of the themes that was identified from the interviews does not relate to the competencies identified from literature. This confirms that one cannot simply apply a competency model for medical practitioners in other countries to the South African context. Additionally, some competencies identified from literature were applicable in the South African context, but it was not interpreted in the same way as in other countries. The construct of medical practitioner performance should be understood within the South African context. Table 4.9 presents the second-order themes to which the first-order themes relate and this linkages is discussed in section 5.2. Evidently, this partial model developed in Chapter 2

should be reconstructed to apply in the South African context. This discovery of newly interpreted meanings of competencies and the identification of salient competencies is presented in the partial South African Medical Practitioner Competency Model. This structural model is depicted in Figure 5.1.

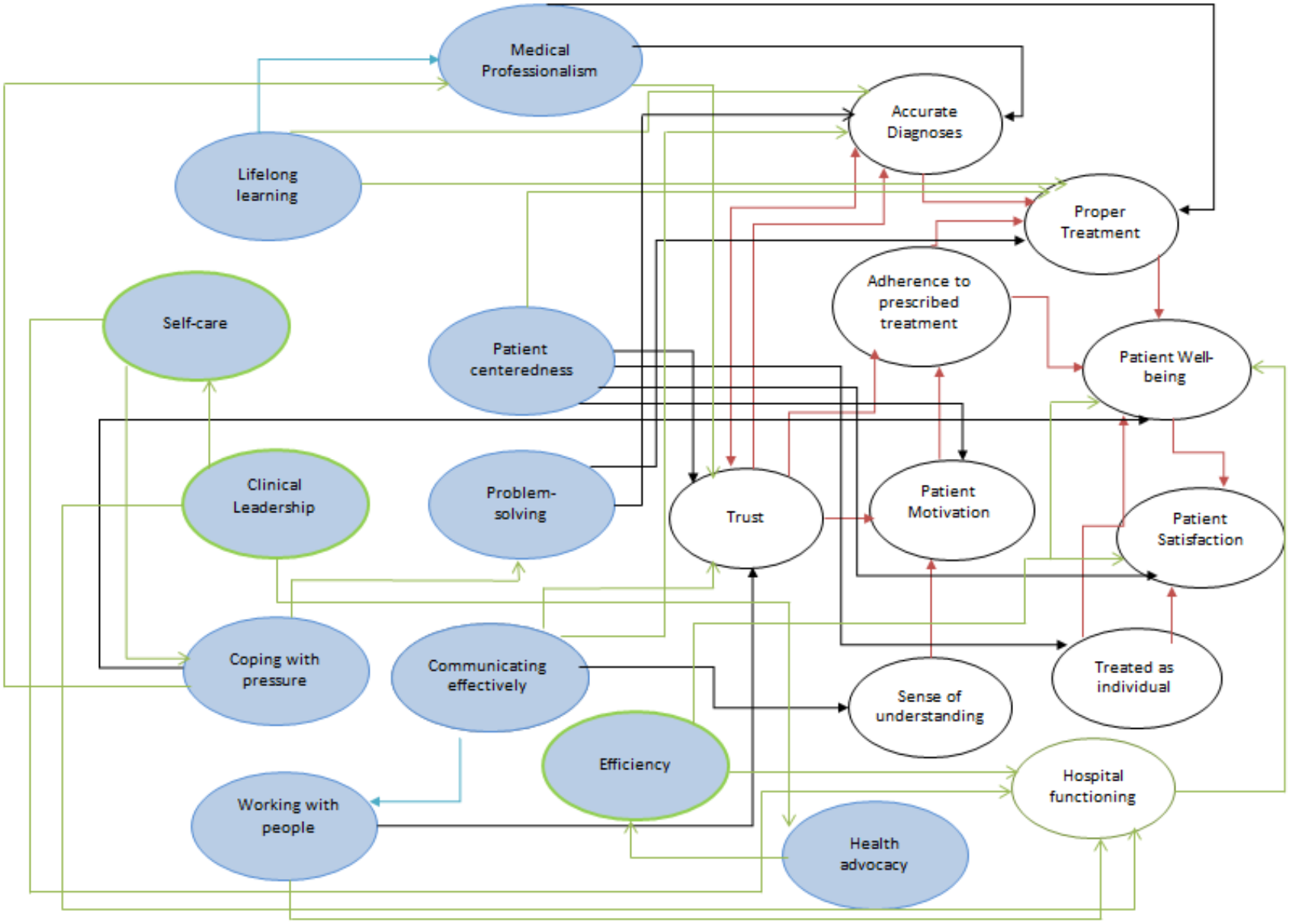

Figure 5.1 **Partial South African Medical Practitioner Competency Model**

The Partial South African Medical Practitioner Competency Model depicted in Figure 5.1 was adapted from the Medical Practitioner Competency Model portrayed in Figure 2.6. The competency *information gathering* was eliminated as it was argued that *information gathering* forms part of multiple competencies included in the model. Newly identified latent variables has a green boarder and new proposed structural paths are also indicated in green.

5.4 Linking Identified Competencies with the Roles Presented by the CanMEDS Competency Framework

Chapter 2 argued that it should be determined whether the CanMEDS framework incorporates all the relevant competencies and whether some of the competencies are redundant to achieve the outcomes relevant to the current South African reality under which medical practitioners have to operate. The identified medical practitioner competencies of this research study has been corroborated in Table 5.2 with the roles as prescribed by the CanMEDS framework.

Table 5.2

CanMEDS Roles Linked to Identified Medical Practitioner Competencies

Nr.	CanMEDS Roles	Medical Practitioner Competencies	% Linkages
1.	Medical Expert	Problem-solving Medical professionalism Patient-centeredness Efficiency	82% of the competencies identified from this research is presented in the CanMEDS Competency Framework
2.	Communicator	Communicating effectively	
3.	Collaborator	Working with people	
4.	Leader and Manager	Clinical leadership	
5.	Health Advocate	Health advocacy	
6.	Scholar	Lifelong learning	
7.	Professional	Medical professionalism	
		Coping with pressure Self-care	18% of the competencies identified from this research is additional to the CanMEDS Competency Framework

It has been determined that all the CanMEDS roles are relevant to the South African context. The CanMEDS framework relates to 82% of the competencies identified in this research study. The remaining 18% is additional to the CanMEDS framework.

5.5 Summary of Definitions

A thematic analysis was done to elicit first-order themes from the participant's utterances. These themes were condensed together to formulate broader clusters of themes, referred to as second-order themes. The second-order themes present the competencies to be included in the South African Medical Practitioner Competency Model. These competencies are defined in Table 5.3.

Table 5.3

Summary of Defined South African Medical Practitioner Competencies

Nr	Competency	Definition
1	Communicating effectively	Clearly articulates the message one wants to deliver, through one's words, writing and body language by using appropriate language or diagrams which the audience will understand; listening, without interrupting others; giving the patient the opportunity to communicate their 'story'; probing for the right information through respectively open and closed ended questions; attending to the words, writing and body language of other to comprehend the message they want to deliver.
2	*Coping with pressure*	Remaining calm while working under stressful conditions and to be able to take control of the situation to remain effective; prioritising activities and delegate tasks to other healthcare professionals.
3	*Medical professionalism*	Applying specialist and detailed expertise to all patients; treating all patients, colleagues and other people with respect and dignity; being punctual and accessible while on duty; displaying integrity, and complying with ethical and legal standards.
4	*Patient-centeredness*	Displaying compassion, empathy, and responsiveness to the needs, values, and expressed preferences of the individual patient.
5	Working with people	Showing respect for the views and contributions of other team members; collaborating with healthcare workers from other medical professions and viewing yourself as equal to others; listens, supports, cares and appreciates others; consults others and shares information and expertise with them; builds team spirit and reconciles conflict; adapts to the team and fit in well.
6	Lifelong learning	Reflecting on work that was done, identifying knowledge and skill gaps and taking the necessary action to improve one's knowledge or clinical skills on a continuous basis to remain competent.

Table 5.3 (continued)

Nr	Competency	Definition
7	Self-care	Being aware of one's inner state and implementing the necessary strategies to achieve emotional and physical well-being for oneself.
8	Efficiency	Using resources effectively; contributing to the larger organisation's success; not compromising patient care for profits; and believing in one's own opinion.
9	Problem-solving	Recognising when problems exist, gathering and analysing all relevant information and identifying different solutions to solve the problem with the available resources and time.
10	Clinical leadership	Taking the lead and delegating activities to team members in a calm way; taking responsibility above and beyond one's duties and standing up to do the right thing.
11	Health advocacy	Responsibly use of one's expertise and influence to advance the health and well-being of individuals, communities, and populations.

The next chapter, Chapter 6, provide the summary of the results, the limitations of the study and the managerial implications together with suggestions for future research.

CHAPTER 6
MANAGERIAL IMPLICATIONS, FUTURE RESEARCH AND CONCLUSION

6.1 Introduction

The long-term objective of this research was to lay the foundation for a series of research studies aimed coming to a valid understanding of the cunning logic underpinning the performance of medical practitioners in the public health care sector via the explication of a comprehensive medical practitioner competency model in the sense that the term was defined earlier. The long-term purpose of the research is to inform human resource management interventions aimed at improving medical practitioner performance. Medical practitioners play a key role in the health of patients and communities and also to a large extend the success of hospitals. The economy depends on a healthy workforce as production cannot successfully proceed should employees be unhealthy or absent from the workplace. The public healthcare sector provides health services to the largest group of employees in South Africa which warrant investigation into the healthcare system in an attempt to promote its effectiveness. Various research studies have focussed on nurses, but in South Africa no studies could be found that focused on the medical practitioner. To successfully develop such a comprehensive medical practitioner competency model, however, requires that the medical practitioner performance construct in the public healthcare sector of South Africa should be validly conceptualised. In Chapter 2 it was argued that performance should be interpreted as a multidimensional construct that comprises a behavioural domain as well as an outcome domain and that the content of these two domains are structurally inter-related (Myburgh, 2013).

The study aimed to identify the key performance, by investigating how a number of specialised general practitioners, family physicians, construct medical practitioner performance and by studying how scientific research literature conceptualises medical practitioner performance. A partial medical practitioner competency model was developed from literature that depicts the structural relations that were hypothesised to exist between a set of structurally inter-related salient latent medical practitioner competencies and a set of structurally inter-related latent outcome variables for which medical practitioners can be held responsible. The credibility of this partial medical practitioner competency model was assessed by analysing the utterances of the participants in this research study. Subsequently, a unified partial South African medical practitioner competency model was developed by integrating the participants' personal constructions of effective medical practitioner performance with the original and additional

literature on medical practitioner performance. Finally, behavioural denotations reflecting varying degrees of competence on the medical practitioner on these competencies were harvested from the transcribed narratives to develop the South African Medical Practitioner Competency Questionnaire (SAMPCQ) shown in Appendix C. As described in Chapter 1, this study sets the foundation for a larger study to develop and validate a comprehensive medical practitioner competency model to understand medical practitioner performance in terms of outcomes that needs to be achieved, the competencies (behaviours) required to achieve the outcomes and the competency potential (personal characteristics) that determines competence on the identified competencies.

The study commenced with a funnel-structured introduction that systematically argued the pivotal role that medical practitioners play in the public health sector in South Africa, the difficult circumstances under which they have to operate and the need for a comprehensive medical practitioner competency model to inform purposeful attempts to improve their performance. The valid conceptualisation and operationalization of the medical practitioner construct is a prerequisite for the development of such a comprehensive competency model. The objective of this study consequently was to come to a deeper understanding of the connotative and denotative meaning of medical practitioner performance by:

(a) constitutively defining the medical practitioner performance construct by developing a partial competency model that explicates the different latent behavioural and outcome variables comprising job performance of medical practitioners in South Africa and the manner in which these latent are structurally inter-related;
(b) developing a South African behavioural performance measure that could eventually be used to obtain multi-rater assessments of the latent behavioural variables in the partial South African medical practitioner's competency model;

Chapter 2 provided a literature overview, in which competency modelling and medical practitioner performance was introduced, defined and contextualised for the purpose of the study. The literature overview sought to contextualise medical practitioner performance in terms of outcomes that need to be achieved and behaviours required to achieve those outcomes.

Chapter 3 presented the research methodology. The research paradigm in which the research was structured was explained and the manner in which the ontological, teleological, epistemological and methodological dimensions of research were interpreted was explained. The research design was discussed and the rationale for choosing a qualitative research design

was deliberated and defended. The chapter also explained the data gathering technique, the sampling strategy, the data gathering process, and the data analysis. It concluded with a discussion of the strategies employed to ensure quality research, as well as the ethical considerations of the study.

The results from the data gathered were presented in Chapter 4. The results of each participant were categorised and discussed. It included the themes pertaining behaviour constituting effective medical practitioner performance that were derived from the narratives which the participants provided as well as specific behavioural denotations in which these themes manifest themselves. The themes derived from the narratives of all the participants were then condensed into second-order themes as an amalgamation of the various first-order themes.

The utterances of each participant, and the themes that were extracted from them, reflected each participant's implicit theory about the competencies and outcomes that constitute successful medical practitioner performance. The aim of the study was to derive insight in these implicit theories so as to assist in the explication of connotative and denotative meaning of medical practitioner performance as a scientific construct. Chapter 5 consisted of a discussion of the second-order behavioural themes presented in Chapter 4 and integrating them with literature. The relevance of the 11 second-order themes for the conceptualisation of the connotative meaning of medical practitioner performance as a scientific construct was evaluated by attempting to corroborate their relevance through studies reported in literature and by logically evaluating the instrumentality of the extracted behavioural themes for achieving the outcomes that medical practitioners are meant to achieve.

Finally, this chapter concludes the study, discussing the findings, providing the limitations of the study, indicating the managerial implications, making recommendations for future studies, and making final remarks as a conclusion to the study.

6.2 Summary of results

The eleven second-order themes that emerged from the current study provides a valuable understanding of the wide spectrum of behaviours that constitute effective medical practitioner performance in the public healthcare sector of South Africa. These eleven themes illuminate various essential aspects of effective medical practitioner behaviour,

It is evident from the results that *problem-solving* is a key aspect concerning medical practitioner behaviour. In essence the job of a medical practitioner is to solve medical problems by

diagnosing the medical problem and then developing a treatment plan to resolve the problem. *Problem-solving*, however, is not limited to medical problems or the patients' problems, but also extents to problems concerning systems and resources. The challenging work context for those working in the public healthcare sector requires a competence at *problem-solving* in almost everything they do.

Due to the resource scarcity and the overload of patients in the public healthcare sector the medical practitioners should work efficiently to insure they do the best with what they have. This theme was not originally identified in the literature study in Chapter 2, but is of crucial importance in the South African context.

All participants agreed that *patient-centeredness* is fundamental to being a successful medical practitioner. Medical practitioners should show an authentic interest in the patient as a person and attempt to understand not only the medical problem, but also the patient's experience of their disease. The treatment plan should be a negotiated plan taking the patient's context into account.

To be effective as a medical practitioner it is very important to *communicate effectively* and also to act professionally towards all people irrespective of their socio-economic standing. As a medical practitioner one works with people every day and to ensure that the work gets done and the right messages are delivered, both these competencies are relevant.

Being a medical practitioner in the final analysis carries the responsibility of saving lives. Doing so often requires working under extreme pressure, especially when the system is flawed and resource limitations impose constraints. *Coping with pressure* is required to deal with these stressors for medical practitioners to continuously achieve their work objectives.

An interesting competency that emerged from the interviews is *self-care*. Participants emphasised the importance of being *self-aware* and taking action to minimise one's chances of burnout. Medical practitioners should have a work-life balance and engage in enjoyable activities outside of work. For medical practitioners to effectively take care of others, it is extremely important that they first take care of themselves.

New technologies and research are continuously evolving and to be a successful medical practitioner one needs to engage in *lifelong learning* to ensure one's knowledge and skills remains recent.

The responsibility of medical practitioners should expand to more than just individual patient health, but should also extend to community health. Medical practitioners should be *health advocates* for their communities implementing preventative interventions to increase the health of the community. This also implies *clinical leadership*. Participants indicated that one cannot be a successful medical practitioner if one does not have *clinical leadership*. *Clinical leadership* is also necessary in managing patients, directing other healthcare workers and managing resources.

When reflecting on medical practitioner performance the danger exists that one might believe that clinical competence at *accurately diagnosing* medical problems, *prescribing the appropriate treatment* based on the diagnosis and possibly performing an invasive medical procedure is all that is of importance to achieve the outcomes of a satisfied patient with improved health. The proposed partial competency model (see Figure 5.1) reflects the current study's stance that this is not an accurate belief on the competencies and outcomes that constitute medical practitioner performance. The partial competency model reflects the stance that additional competencies over and above clinical competence determines whether the outcomes of a satisfied patient with improved health are attained. The partial competency model in addition reflects the stance that the level of competence of a medical practitioner on the array of competencies percolate through a structural network of leading and lagging outcomes to affect patient satisfaction and health. Performance is a multi-dimensional construct consisting of structurally inter-related behaviours and outcomes. During the repertory grid section of the interview, when participants were asked to describe which medical practitioner is more or less effective, very few participants referred to their clinical competence (demonstrating their medical knowledge and clinical skills); it was the medical practitioner behaviours that distinguished the more effective performers from the less effective performers. The conclusion is therefore that displaying competence on the non-task performance competencies does significantly contribute to effective medical practitioner performance defined in terms of the outcomes.

6.3 Limitations

As in any study, a few limitations have been defined that inhibit the scope and accuracy of this research. In terms of longitudinal research, cognisance should be taken of the position and stage of the current study. This research sets the foundation for multiple future studies to comprehensively understand and explain variance in the performance construct of medical practitioner performance. The main limitation of this study is that it is a first attempt to

understand medical practitioner performance in the South African public healthcare sector and thus no final conclusions can yet be made. The partial South African Medical Practitioner Competency Model should still develop into a full model and empirically validated to determine the complete South African Medical Practitioner Competency Model. In addition, the items for the South African Medical Practitioner Competency Questionnaire (SAMPCQ) have been developed, but a similar measuring instrument should still be developed to assess the outcomes included in the partial competency model derived proposed in the current study

Methodologically, the first limitation of this study was the use of a convenience sampling technique which is a non-probability sampling technique. Within this technique, sampling error cannot be calculated and it cannot be assumed that the sample of 7 subject matter experts (SME's) from the Western Cape is representative of the South African population (Blumberg, Cooper, & Schindler, 2008). Secondly, due to the demanding and busy schedules of the participants it was extremely difficult to get a hold of and schedule an interview with them, as their time is scarce and valuable. It was difficult to get enough participants to achieve data saturation, but nonetheless data saturation was eventually achieved. Data saturation was probably possible as the researcher used two interview techniques which forced the participants to think of medical practitioner performance from different points of views, the interviews were in-depth and lasted between 90 and 120 minutes, and the subject matter experts were intimately knowledgeable on the subject. Thirdly, the researcher attempted to obtain a sample that was representative of the demographics of South Africa. The sample consisted of both males and females. However, all the participants were white and although multiple prospective participants from other racial groups were invited to participate in the study, they did not respond to the invitations. Finally, the sample included family physicians who are SME's and who are believed to understand the medical practitioner performance construct quite accurately. Nonetheless, they are not the receivers of this service and only provide a unilateral view of medical practitioner performance. In addition family physicians get taught in a specific way and that again emphasises another unilateral view of effective medical practitioner performance. Interpretations of effective medical practitioner performance that emanate from alternative medical paradigms (like traditional African medicine or homeopathy) were not considered in the current study. The researcher believes it would be valuable to conduct interviews with patients and other healthcare professionals, such as nurses, to get a multilateral view of effective medical practitioner performance.

6.4 Practical Implications

Since this research was the first of a series of research studies attempting to understand effective medical practitioner performance, the main implication is that multiple research studies can now emanate from this research.

Eventually these future research studies should culminate in an empirically validated comprehensive South African Medical Practitioner Competency Model, a performance questionnaire [the SAMPCQ], a South African Medical Practitioner Outcome Questionnaire [the SAMPOQ] and a battery of measures measuring the medical practitioner competency potential latent variables that determine the level of competence that is achieved on the competencies. The primary implication is that a better understanding will be obtained of the medical practitioner performance construct in the public healthcare sector of South Africa and its determinants. This understanding can enhance medical practitioner development on both a tertiary and practical level. Separate short courses can be presented for medical students or practitioners on the competencies included in the medical practitioner competency model to assist them in developing these specific competencies. The SAMPCQ and the SAMPOQ can deliver formative and/or summative measures of medical practitioner performance which can be used either for development or performance evaluations.

One participant mentioned that students finish medical school in the belief that they are “going to practice medicine and they think that they are going to be treating patients, but it is actually working in an environment under pressure and being able to interact appropriately with colleagues” (Participant 3, 2015). Taking into account that medical practitioners have to do more than only ‘practice medicine’ these competencies are important building blocks to be successful medical practitioners. These competencies are becoming increasingly fundamental to effective medical practitioner performance. Interventions aimed at enhancing the level of competence achieved on these competencies therefore become imperative.

All participants mentioned during the interview process that they do not ordinarily observe their medical practitioner colleagues consulting with a patient. Supervisors do observe the intern medical practitioners, but for the rest of their careers medical practitioners do not observe one another during consultations (other than in the emergency room possibly). Should there not maybe be opportunity for medical practitioners to observe one another for quality management? Interventions should be taken to ensure consistency in performance and continuous professional development. One such intervention could be implementing the SAMPCQ as a

performance management instrument. Identifying developmental areas could include a development centre where medical practitioners proceed through a series of simulations which require the display of certain competencies. Trained assessors can assess the behaviour of the medical practitioners during the different simulations and then engage in a feedback session report on their performance. Developmental interventions may include short workshops with practical exercises to do over a period of time, to ensure competence on the competency.

It is recognised that the implementation of interventions such as including competency training into medical education and implementing a performance evaluation process may pose a serious challenge, as in any other organisational change intervention. With that said the researcher advises that considerable change management should be implemented in an attempt to get the buy-in of the participants. It is anticipated that the initial implementation of such competency programmes may be uncomfortable for those on the receiving end. However, developing to one's full potential (self-actualisation) is an inherent need of humans, and developing these competencies to achieve effective medical practitioner performance, will contribute towards medical practitioner self-actualisation.

Understanding what factors determine performance success from a behavioural aspect can also assist in the selection of students for tertiary education. Although some behaviours can be developed the chances of successfully developing this behaviours is higher for individuals who naturally display the right competency potential.

6.5 Suggestions for future research

This study provides the foundation for a number of subsequent studies required to realise the vision of a validated comprehensive South African Medical Practitioner Competency Model (SAMPCM). Possibilities include both qualitative and quantitative research initiatives focussing on different aspects of the envisaged SAMPCQ. Refer to Appendix C for the current developed SAMPCQ.

With reference to qualitative research it is firstly suggested that a study similar to this one is conducted with a wider range of participants to validate the findings. Interviews can be done with patients, and other healthcare professionals such as nurses, general practitioners, surgeons, occupational therapists, and physiotherapists. Behavioural themes identified from this subsequent study should be tallied with the current research study which could possibly lead to alterations of the SAMPCQ. This should provide an even more secure foundation from which

the SAMPCQ can be validated. Secondly, smaller research studies can focus distinctly on each identified competency and investigate into depth each medical practitioner competency to fully grasp the extent of it. Thirdly, the outcomes of medical practitioners in the public healthcare sector of South Africa should be investigated. Fourth and fifthly the competency potential and situational factors (competency requirements) could be investigated.

In terms of quantitative research the developed SAMPCQ should be validated through means of statistical analyses including item analyses, dimensionality analysis and confirmatory factor analysis. If evidence on the construct validity of the SAMPCQ would be found it furthermore would become imperative to examine the measurement invariance and equivalence of the SAMPCQ across gender and ethnic groups. The aim is to determine whether the questionnaire is sufficiently psychometrically sound to justify its use as a performance measurement instrument for medical practitioners in South Africa. Similarly the SAMPOQ, once developed, should also be psychometrically evaluated.

The validity of the comprehensive South African Medical Practitioner Competency Model as a description of the psychological mechanism that determines the level of competence that medical practitioners achieve on the competencies and outcomes that constitute performance should be evaluated by evaluating of the fit of the structural model and the statistical significance and magnitude of the freed structural model parameter estimates.

Considering the poor functioning of the current public healthcare system in South Africa a diagnostic research study is suggested, using the comprehensive South African Medical Practitioner Competency Model as a diagnostic model, as an attempt to determine why this sector is not as effective as it should be and to derive appropriate remedial treatments.

6.6 Concluding remarks

The study is intended to contribute to the industrial psychology fraternity and to the future public healthcare of the public healthcare sector of South Africa, by hopefully providing valuable insights into the intricate and complex functioning of effective medical practitioner behaviour.

This research lays the foundation for a larger research study which includes the development and testing of a comprehensive medical practitioner competency model. Understanding the cunning nomological logic underlying medical practitioner performance could aid in selecting the right medical students at tertiary level, managing the performance of practicing medical

practitioners and most importantly, developing medical practitioner competencies to ensure effective medical practitioner performance in the interest of improved healthcare.

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APPENDIX A:

CONSENT TO PARTICIPATE IN RESEARCH

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STELLENBOSCH UNIVERSITY
CONSENT TO PARTICIPATE IN RESEARCH

The Development of a South African Medical Practitioner Competency Questionnaire (SAMPCQ)

You are asked to participate in a Master's research study conducted by Ms Menanteau Fourie, under the supervision of Ms Michelle Visser and Prof Callie Theron, from the Department of Industrial Psychology at Stellenbosch University. The research will contribute to the Master's thesis of Ms Fourie. You were selected as a possible participant in this study because of your position as a medical practitioner/family physician.

1. PURPOSE OF THE STUDY

The purpose of this interview is to get a better understanding of medical practitioner behaviours (competencies) that contributes to being a good medical practitioner in the South African context. The findings will be integrated with existing theory to develop the South African Medical Practitioner Competency Questionnaire (SAMPCQ). The long-term objective of the study is to develop and test a medical practitioner competency model that reflects the behaviours/competencies necessary for successful medical practitioner performance outcomes. Expectantly this model will serve as a basis to be used for selecting and developing medical practitioners of South Africa.

2. PROCEDURES

If you volunteer to participate in this study, we would ask you to:

- Participate in an interview
- Respond to interview questions as objectively and accurately as possible

The interviews will be conducted in a private room where only the interviewer(s) and yourself will be present.

The length of the interview will range between 60 – 90 minutes.

You will most probably be asked to attend only one interview. However, there is a possibility of a second interview.

3. POTENTIAL RISKS AND DISCOMFORTS

Other than the discomfort of having to set aside time to participate in the interview, the researchers anticipate no risk to the participants. Information gathered from the participant will be kept confidential and the participant's position within his/her work institution will not be affected.

4. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

There are no direct benefits to the participants in the study.

5. PAYMENT FOR PARTICIPATION

Participants will not be receiving remuneration for their participation in this research study.

6. CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law.

You as the interviewee will not be required to provide your identity or particulars in the recording of the interview, unless you give permission thereto. A coding procedure will be used to establish and maintain anonymity. Your interview will be combined with all the other interviews, and subsequently analysed to find common themes relating to medical practitioner performance. Information that can be identified with you will remain confidential. Only with your written permission or as required by law, will any personal information be disclosed.

Should you give information related to a very specific incident which might lead to the disclosure of any organization or person, the interviewer will only report back on the general behaviour of the medical practitioner, and not disclose specific information related to the incident.

The results of this study will be published in a completed Master's thesis (note that only the integrated findings will be published and not the actual interviews). Confidentiality of all respondents will be maintained, unless otherwise agreed on in writing.

7. RECORDING

Your interview will be recorded by means of an audio recorder whilst the interviewer will also take notes during the interview. If you agree that your interview may be recorded, please give your written consent by signing this consent form. You will be afforded the opportunity to audit your contribution to the research by reviewing the transcriptions of your interview, if you feel the need to do so. In order to access this right, please contact the principle investigator (contact information available in section 9) should you wish to do so.

8. PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

9. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact,

Principal Investigator

Ms Menanteau Fourie

084 645 3807

Co-Investigator

Prof Callie Theron

021 808 3009

Supervisor

Ms Michelle Visser

021 808 2961

10. RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Ms Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] at the Division for Research Development at Stellenbosch University.

SIGNATURE OF RESEARCH PARTICIPANT OR LEGAL REPRESENTATIVE

The information above was described to me by _____ [*name of relevant person]* in *Afrikaans/English* and I am in command of this language or it was satisfactorily translated to me. I was given the opportunity to ask questions and these questions were answered to my satisfaction.

I hereby consent voluntarily to participate in this study under the stipulated conditions. I have been given a copy of this form.

☐ Yes ☐ No

I consent to the researcher anonymously quoting statements made by me in the thesis by referring to my identity code [e.g. participant/interviewee 7].

☐ Yes ☐ No

I consent to the researcher quoting statements made by me in the thesis by referring to my name and surname.

☐ Yes ☐ No

_____ _____

Signature of participant Date

SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to _____ [*name of the subject/participant]*. He/she was encouraged and given ample time to ask me any questions. This conversation was conducted in *Afrikaans/English* and no translator was used.

_____ _____

Signature of Investigator Date

APPENDIX B:

INTERVIEW GUIDE

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INTERVIEW GUIDE

Subject matter expert (SME) information

Code number of SME _____

Race _____

Gender _____

Job title _____

Date _____

Hospital _____

Period of position (e.g. 1999-2013) _____

Phase 1: Introduction

Contextual meaning of medical practitioner competencies, outcomes, and situational factors

In this research study medical practitioner competencies are defined as bundles of related behaviour that when performed by a medical practitioner, would probably lead to a range of positive outcomes (e.g. *a patient will be accurately diagnosed*). Medical practitioner outcomes refer to the dimensions or criteria that can be used to describe the extent to which a medical practitioner is successful in his/her mission.

Specifications

When responding to the following questions, please keep the following specifications in mind, since these will give guidance as to what type of information is sought for:

1. Answers should refer to the behaviour and actions of a medical practitioner practicing in a hospital.

2. Answers should refer to the South African public health care sector

3. The behavioural incidents which are recalled are expected to have a direct or indirect effect on one or more of the outcomes that a medical practitioner is meant to affect.

Phase 2: Repertory Grid[11]

[11] The repertory grid will be completed during the interview on an excel spread sheet.

Elements – Medical practitioners (MP): Think of three medical practitioners, including both more and less effective performers, whom you supervised, or worked with.

Constructs: 'Describe a way in which 2 MPs are similar to each other and different from the third in terms of the way in which they perform their job? It may be either good or bad differences'

Use laddering up and laddering down to clarify constructs.

Repeat this with other triads.

Table 1: Repertory Grid

Elements											Constructs	
No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Why 2 similar**	**Why 1 different**
1												
2												
3												
…												
End												

Phase 3: Critical Incidents

Interview Schedule

Highlight the row of the interview on the interview schedule.

Table 2: Interview Schedule

		Competencies									
		Medical Professionalism	Communication	Information Gathering	Coping with pressure	Problem solving	Effective decision making	Patient centeredness	Lifelong learning	Working with people	Health Advocacy
Interview	1	1		5	2			3			4
	2	4	1		5	2			3		
	3		4	1		5	2			3	
	4			4	1		5	2			3
	5	3			4	1		5	2		
	6		3			4	1		5	2	
	7			3			4	1		5	2
	8	2			3			4	1		5
	9	5	2			3			4	1	
	10		5	2			3			4	1

Critical Incident Questions

1. Think of a medical practitioner who, according to your assessment, is highly successful on the performance dimension/latent competency XXX. The performance dimension/latent competency XXX is defined as:

   [provide definition here]

   Please motivate/justify your position that this medical practitioner is highly competent on the competency XXX by describing specific incidents that illustrate the practitioner's competence on the specific competency. Please explain exactly what the specific medical practitioner did in the specific incident and why you regard it as a good illustration of his/her competence on this specific competency.
2. Think of a medical practitioner who, according to your assessment, is a less effective performer on the performance dimension/latent competency XXX.

   Please motivate/justify your position that this medical practitioner is reasonably unsuccessful/neutral on the competency XXX by describing specific incidents that illustrate the practitioner's competence on the specific competency. Please explain exactly what the specific medical practitioner did in the specific incident and why you regard it as a poor illustration of his/her competence on this specific competency.

Repeat for each of the competencies that were in the competency set for the interview in question.

Phase 4: Concluding the interview

Would you like to make any other comment that you think could be helpful to this research study?

……

……

……

……

……

……

……

Thank you for your time and for the willingness to contribute to this study.

If you have any questions about this interview, feel free to contact my supervisor, Mrs Michelle Visser at the Department of Industrial Psychology of Stellenbosch University, or myself. Our contact details are in your copy of the consent form.

APPENDIX C:

SOUTH AFRICAN MEDICAL PRACTITIONER COMPETENCY QUESTIONNAIRE

UNIVERSITEIT·STELLENBOSCH·UNIVERSITY
jou kennisvennoot • your knowledge partner

SOUTH AFRICAN MEDICAL PRACTITIONER COMPETENCY QUESTIONNAIRE

(SAMPCQ V1-2015)

[OTHER ASSESSMENT FORM]

INSTRUCTIONS

INTRODUCTION

Performance is defined as observable behavioural actions that medical practitioners perform relevant to the healthcare facility's goals. These behaviours are regarded as relevant because they are instrumental in achieving specific, desired outcomes. The behaviours are expressions of underlying latent performance dimensions. This questionnaire attempts to assess the level of competence by measuring the frequency by which medical practitioners display the behaviours related to the competencies required for effective medical practitioner performance.

Your ratings along with those of other suitably qualified respondents will be combined to form an overall performance rating for the focal medical practitioner on each of the medical practitioner competencies. That will assist him/her to come to better understanding his/her performance strengths and development areas. The goal is to provide initiatives to assist the medical practitioner in improving his/her development areas.

INSTRUCTIONS

The South African Medical Practitioner Competency Questionnaire (SAMPCQ) consists of 150 items measuring 11 latent performance dimensions. In rating the identified medical practitioner please read each item carefully and choose the appropriate response option (1-6) that best describes the standard of performance that he/she displayed over the past 12 month by choosing the specific behaviours referred to in the item that the he/she typically displayed over the assessment period and placing a cross on the corresponding scale value.

EXAMPLE

The performance dimension (competency) being measured is highlighted and numbered in letters (A, B… K). The definition of the competency is given in italics with each competency.

In your response to item A1 you should indicate the frequency of task performance of the medical practitioner over the past 12 month by choosing the specific frequency that best describes the extent to which he/she asks open ended questions. If, for example, he/she seldom asks open ended questions the response option 1 (rarely) or 2 (once in a while) should be selected placing a cross on the 1 or 2. If, however, he/she regularly asks open ended questions option 4 (fairly often) or 5 (very frequently) should be selected by placing a cross on this option. The response option '0' (not observable) should be used as seldom as possible and only if you have had insufficient opportunity to observe the specific behavioural aspect.

COMMUNICATING EFFECTIVELY

Clearly articulates the message one wants to deliver, through one's words, writing and body language by using appropriate language or diagrams which the audience will understand; listening, without interrupting others; giving the patient the opportunity to communicate their 'story'; probing for the right information through respectively open and closed questions; attending to the words, writing and body language of other to comprehend the message they want to deliver.

Nr.	Question	Rarely	Once in a while	Sometimes	Fairly often	Very frequently	Not observable
A1	Asks open ended question	1	2	3	4	5	0

BIOGRAPHICAL INFORMATION

Name and surname of the person being rated (ratee)					
Relationship of the rater	**Peer**	**Supervisor**	**Patient**	**Healthcare worker**	**Other(specify):**
First language of rater	**Afrikaans**	**English**	**Xhosa**	**Zulu**	**Other(specify):**
Race of rater	**Black**	**Coloured**	**Indian**	**Chinese**	**White**
Tenure of rater in current position	**0 – 1 years**	**1- 3 years**	**3 - 5 years**	**5 – 10 years**	**More than 10 years**
Job grade of rater (Peromnes)	**7-12**	**13-16**	**17-19**		
Gender of rater	**Male**			**Female**	

PERFORMANCE RATING

A. COMMUNICATING EFFECTIVELY

Clearly articulates the message one wants to deliver, through one's words, writing and body language by using appropriate language or diagrams which the audience will understand; listening, without interrupting others; giving the patient the opportunity to communicate their 'story'; probing for the right information through respectively open and closed questions; attending to the words, writing and body language of other to comprehend the message they want to deliver.

Nr.	Question	Rarely	Once in a while	Sometimes	Fairly often	Very frequently	Not observable
A1	Asks open ended question	1	2	3	4	5	0
A2	Asks closed ended questions	1	2	3	4	5	0
A3	Makes eye contact with the patient	1	2	3	4	5	0
A4	Checks for patient understanding	1	2	3	4	5	0
A5	Listens without interrupting the patient	1	2	3	4	5	0
A6	Uses non-verbal cues to make the patient more comfortable	1	2	3	4	5	0
A7	Presents written information in a legible and structured fashion	1	2	3	4	5	0
A8	Communicates clearly without unnecessary medical jargon	1	2	3	4	5	0

B. COPING WITH PRESSURE

Remaining calm while working under stressful conditions and to be able to take control of the situation to remain effective; prioritising activities and delegate tasks to other healthcare professionals.

Nr.	Question	Rarely	Once in a while	Sometimes	Fairly often	Very frequently	Not observable
B1	Remains calm in stressful and emergency situations	1	2	3	4	5	0
B2	Uses humour appropriately to alleviate stress	1	2	3	4	5	0
B3	Displays awareness of his/her own limitations	1	2	3	4	5	0
B4	Asks for help during emergencies when needed	1	2	3	4	5	0
B5	Delegates work during emergencies to ensure that the patient(s) are urgently assisted in the best possible way	1	2	3	4	5	0
B6	Persists through difficult circumstances	1	2	3	4	5	0
B7	Prioritises work when the workload becomes very high	1	2	3	4	5	0
B8	Shows a willingness to accept and deal with discomfort caused by medical problems and system frustrations	1	2	3	4	5	0
B9	Takes the difficulties of being a medical practitioner in his/her stride	1	2	3	4	5	0

C. MEDICAL PROFESSIONALISM

Applying specialist and detailed expertise to all patients; treating all patients, colleagues and other people with respect and dignity; being punctual and accessible while on duty; displaying integrity, and complying with ethical and legal standards.

Nr.	Question	Rarely	Once in a while	Sometimes	Fairly often	Very frequently	Not observable
C1	Treats patients from different cultural backgrounds with the same respect	1	2	3	4	5	0
C2	Acts politely to others although they frustrate him/her	1	2	3	4	5	0
C3	Behaves ethically	1	2	3	4	5	0
C4	Acts punctually at work	1	2	3	4	5	0
C5	Shows respect to patients from a lower socio economic background	1	2	3	4	5	0
C6	Behaves according to the law	1	2	3	4	5	0
C7	Acts with integrity	1	2	3	4	5	0
C8	Swears at patients and/or families and/or other healthcare workers (-)	1	2	3	4	5	0
C9	Shows willingness to help all patients who seek help	1	2	3	4	5	0
C10	Does what he/she says they will do	1	2	3	4	5	0
C11	Controls emotions experienced towards extreme negative/frustrating situations	1	2	3	4	5	0

D. PATIENT-CENTEREDNESS

Displaying compassion, empathy, and responsiveness to the needs, values, and expressed preferences of the individual patient.

Nr.	Question	Rarely	Once in a while	Sometimes	Fairly often	Very frequently	Not observable
D1	Understands how the patient experience their medical problem	1	2	3	4	5	0
D2	Treats patients and families as partners	1	2	3	4	5	0
D3	Shows empathy for patients	1	2	3	4	5	0
D4	Displays caring towards the patient	1	2	3	4	5	0
D5	Acts in a friendly manner when interacting with a patient	1	2	3	4	5	0
D6	Acts in an accommodating and compassionate manner towards patients	1	2	3	4	5	0
D7	Tries to get to understand the person and their circumstances	1	2	3	4	5	0
D8	Takes a holistic approach to the patient's problem	1	2	3	4	5	0

E. WORKING WITH PEOPLE

Showing respect for the views and contributions of other team members; collaborating with healthcare workers from other medical professions and viewing yourself as equal to others; listens, supports, cares and appreciates others; consults others and shares information and expertise with them; builds team spirit and reconciles conflict; adapts to the team and fit in well.

Nr.	Question	Rarely	Once in a while	Sometimes	Fairly often	Very frequently	Not observable
E1	Interacts with people with respect	1	2	3	4	5	0
E2	Interacts with people in a way that is fun	1	2	3	4	5	0
E3	Shows appreciation towards others	1	2	3	4	5	0
E4	Uses humour appropriately	1	2	3	4	5	0
E5	Demonstrates knowledge of the capabilities of other team members	1	2	3	4	5	0
E6	Asks for help and support from colleagues	1	2	3	4	5	0
E7	Provides help, support and motivation to colleagues	1	2	3	4	5	0
E8	Considers the impact of your actions on the team	1	2	3	4	5	0
E9	Speaks respectfully to other team members	1	2	3	4	5	0
E10	Listens to the opinions of other healthcare professionals	1	2	3	4	5	0
E11	Collaborates with other healthcare professionals	1	2	3	4	5	0

Nr.	Question	Rarely	Once in a while	Sometimes	Fairly often	Very frequently	Not observable
E12	Builds relationships with colleagues	1	2	3	4	5	0
E13	Treats other professionals as equals	1	2	3	4	5	0
E14	Sees him-/herself as equal to other people	1	2	3	4	5	0

F. LIFELONG LEARNING

Reflecting on work that was done, identifying knowledge and skill gaps and taking the necessary action to improve one's knowledge or clinical skills in order to remain competent.

Nr.	Question	Rarely	Once in a while	Sometimes	Fairly often	Very frequently	Not observable
F1	Questions the status quo in terms of hospital functioning;	1	2	3	4	5	0
F2	Reflects on negative or bad outcomes to avoid them in future	1	2	3	4	5	0
F3	Looks back on his/her management of patients to see if there is anything that they can improve	1	2	3	4	5	0
F4	Reflects critically on his/her practice and behaviour	1	2	3	4	5	0
F5	Reflects on and analyses previous medical cases to determine whether there is anything they can improve on.	1	2	3	4	5	0
F6	Shows a curiosity to learn more	1	2	3	4	5	0

Nr.	Question	Rarely	Once in a while	Sometimes	Fairly often	Very frequently	Not observable
F7	Knows his/her limitations	1	2	3	4	5	0
F8	Identifies areas in which he/she can improve their knowledge and behaviour	1	2	3	4	5	0
F9	Develop his/her clinical skills and knowledge	1	2	3	4	5	0
F10	Discusses key medical problems with other colleagues	1	2	3	4	5	0
F11	Reads up on medical topics	1	2	3	4	5	0
F12	Attend courses to improve clinical skills and knowledge	1	2	3	4	5	0

G. SELF-CARE

Being aware of one's inner state and implementing the necessary strategies to achieve emotional and physical well-being for oneself.

Nr.	Question	Rarely	Once in a while	Sometimes	Fairly often	Very frequently	Not observable
G1	Displays insight in their own competence	1	2	3	4	5	0
G2	Understands the effect of different situations on his or her emotions	1	2	3	4	5	0
G3	Knows when one requires help	1	2	3	4	5	0

Nr.	Question	Rarely	Once in a while	Sometimes	Fairly often	Very frequently	Not observable
G4	Recognises when one is not coping	1	2	3	4	5	0
G5	Develops a plan to manage any signs of burnout	1	2	3	4	5	0
G6	Being aware of ones' limits	1	2	3	4	5	0
G7	Takes time off when he/she needs rest	1	2	3	4	5	0
G8	Demonstrates the ability to say no to extra shifts	1	2	3	4	5	0
G9	Takes care of him-/herself in terms of physical wellness	1	2	3	4	5	0
G10	Takes care of him-/herself in terms of emotional wellness	1	2	3	4	5	0
G11	Lives a life that involves more than work	1	2	3	4	5	0
G12	Gets enough sleep	1	2	3	4	5	0
G13	Talks to someone regarding ones' experiences	1	2	3	4	5	0
G14	Achieves a work-life balance	1	2	3	4	5	0
G15	Takes the necessary steps to care for him-/herself	1	2	3	4	5	0
G16	Promotes their own personal growth and maturity	1	2	3	4	5	0

Nr.	Question	Rarely	Once in a while	Sometimes	Fairly often	Very frequently	Not observable
G17	Achieves the most he/she can achieve in their career	1	2	3	4	5	0
G18	Demonstrates the love of a higher power by serving the underserved	1	2	3	4	5	0

H. EFFICIENCY

Using resources effectively; contributing to the larger organisation's success; not compromising patient care for profits; and believing in one's own opinion.

Nr.	Question	Rarely	Once in a while	Sometimes	Fairly often	Very frequently	Not observable
H1	Organises work in such a manner that systems and resources are applied in the most effective way possible.	1	2	3	4	5	0
H2	Implement interventions to achieve targets as prescribed by government.	1	2	3	4	5	0
H3	Asks questions regarding factors that affects the effectiveness of the hospital	1	2	3	4	5	0
H4	Directs activities that affects the effectiveness of the hospital	1	2	3	4	5	0
H5	Uses resources efficiently	1	2	3	4	5	0
H6	Works at a fast pace with minimal errors	1	2	3	4	5	0
H7	Flexibly adapts to different scenarios	1	2	3	4	5	0

Nr.	Question	Rarely	Once in a while	Sometimes	Fairly often	Very frequently	Not observable
H8	Works at an acceptable pace	1	2	3	4	5	0
H9	Sees the required number of patients per day	1	2	3	4	5	0
H10	Resting enough to be alert at work	1	2	3	4	5	0
H11	Demonstrates an understanding how his/her work-rate affects the overall efficiency of the hospital	1	2	3	4	5	0
H12	Does his/her part to increase hospital efficiency	1	2	3	4	5	0
H13	Implements processes and systems to increase efficiency	1	2	3	4	5	0
H14	Works effectively and efficiently by making clear plans and requiring clear patient outcomes,	1	2	3	4	5	0
H15	Holds the patient accountable to adhere to their responsibility of the treatment plan	1	2	3	4	5	0
H16	Indicates the boundaries of what they can offer	1	2	3	4	5	0
H17	Demonstrates an understanding of the patient	1	2	3	4	5	0
H18	Facilitates the patient’s understanding of his/her disease	1	2	3	4	5	0
H19	Confidently gives opinions	1	2	3	4	5	0
H20	Acts with confidence	1	2	3	4	5	0

Nr.	Question	Rarely	Once in a while	Sometimes	Fairly often	Very frequently	Not observable
H21	Shows the willingness to consult colleagues should they be uncertain.	1	2	3	4	5	0
H22	Displays confidence in his/her knowledge, skills, and abilities.	1	2	3	4	5	0
H23	Confidently articulates what he/she are doing and why they are doing it.	1	2	3	4	5	0

I. PROBLEM-SOLVING

Recognising when problems exist, gathering and analysing all relevant information and identifying different solutions to solve the problem with the available resources and time.

Nr.	Question	Rarely	Once in a while	Sometimes	Fairly often	Very frequently	Not observable
I1	Assesses available information in a calm and structured manner	1	2	3	4	5	0
I2	Confidently derives conclusions on how to solve a problem.	1	2	3	4	5	0
I3	Shows a willingness to ask for help	1	2	3	4	5	0
I4	Collaborates with relevant stakeholders and develops solutions which takes all relevant parties into consideration;	1	2	3	4	5	0
I5	Takes pro-active responsibility to find solutions to problems which is affecting efficiency.	1	2	3	4	5	0
I6	Questions and adapts the conventional way of doing things to ensure better health outcomes.	1	2	3	4	5	0

Nr.	Question	Rarely	Once in a while	Sometimes	Fairly often	Very frequently	Not observable
I7	Takes action to resolve problems outside of his/her job description	1	2	3	4	5	0
I8	Refers made were always necessary and not wasteful	1	2	3	4	5	0
I9	Accurately and confidently diagnose medical conditions	1	2	3	4	5	0
I10	Makes accurate clinical conclusions	1	2	3	4	5	0
I11	Displays clinical competence in treating medical conditions	1	2	3	4	5	0
I12	Develops a sufficiently large enough array of hypotheses on what the underlying causes of the symptoms are	1	2	3	4	5	0
I13	Relies on clinical skills, rather than medical test/investigation to come to conclusions	1	2	3	4	5	0
I14	Demonstrates understanding when a rule or protocol can be slightly bent to achieve greater patient health outcomes.	1	2	3	4	5	0
I15	Takes the risk to break a rule if it is evident that one's idea/action might save a life.	1	2	3	4	5	0
I16	Holistically investigates the medical problem, the individual issue, as well as the context.	1	2	3	4	5	0
I17	Captures the information accurately and comprehensively	1	2	3	4	5	0
I18	Considers all the clinical signs and verbal and behavioural cues from the patient to derive a conclusion	1	2	3	4	5	0
I19	Consults with other health care practitioners to get more information	1	2	3	4	5	0

Nr.	Question	Rarely	Once in a while	Sometimes	Fairly often	Very frequently	Not observable
I20	Considers all the information before making a decision	1	2	3	4	5	0
I21	Considers the implications of the decision before making a decision	1	2	3	4	5	0
I22	Decides what is the most efficient way to deal with a problem,	1	2	3	4	5	0
I23	Implements decisions.	1	2	3	4	5	0
I24	Quickly decides upon action and then also initiating the action	1	2	3	4	5	0
I25	Acts decisively	1	2	3	4	5	0
I26	Depending on the scenario making immediate or well thought out decisions and being able to take action	1	2	3	4	5	0

J. CLINICAL LEADERSHIP

Taking the lead and delegating activities to team members in a calm way; taking responsibility above and beyond one's duties and standing up to do the right thing.

Nr.	Question	Rarely	Once in a while	Sometimes	Fairly often	Very frequently	Not observable
J1	Takes the lead in activities	1	2	3	4	5	0
J2	Delegates activities to team members in a calm way	1	2	3	4	5	0

Nr.	Question	Rarely	Once in a while	Sometimes	Fairly often	Very frequently	Not observable
J3	Takes responsibility above and beyond your duties	1	2	3	4	5	0
J4	Stands up to do the right thing	1	2	3	4	5	0
J5	Serves as a mentor for less experienced colleagues	1	2	3	4	5	0
J6	Teaches others with passion.	1	2	3	4	5	0
J7	Shares new knowledge of interesting or unusual medical phenomena with other healthcare practitioners	1	2	3	4	5	0

K. HEALTH ADVOCACY

Responsibly use of one's expertise and influence to advance the health and well-being of individuals, communities, and populations.

Nr.	Question	Rarely	Once in a while	Sometimes	Fairly often	Very frequently	Not observable
K1	Takes a community perspective on health.	1	2	3	4	5	0
K2	Picks up on patterns of poor health manifesting in patients	1	2	3	4	5	0
K3	Taking the necessary steps to investigate patterns of poor health manifesting in patients further.	1	2	3	4	5	0
K4	Take appropriate action when community health issues is identified	1	2	3	4	5	0

Nr.	Question	Rarely	Once in a while	Sometimes	Fairly often	Very frequently	Not observable
K5	Initiates action against any factors that threaten patient/community health	1	2	3	4	5	0
K6	Actively promotes access to quality medical services in rural areas.	1	2	3	4	5	0
K7	Equips other medical practitioners to become better rural medical practitioners.	1	2	3	4	5	0
K8	Takes initiatives to improve health services on an individual and a system's level.	1	2	3	4	5	0
K9	Demonstrates an understanding of the context of the patient	1	2	3	4	5	0
K10	Implements preventative measures to improve health.	1	2	3	4	5	0
K11	Demonstrates a willingness to improve things.	1	2	3	4	5	0
K12	Displays a community orientation	1	2	3	4	5	0
K13	Delivers a medical service to the underserved.	1	2	3	4	5	0