Social Networking Services in Support of Patient Centred Care: A South African Perspective

By

Allisson Catherine Ebony Mentoor

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DECLARATION

I, ALLISSON CATHERINE EBONY MENTOOR with student number 211085367, hereby declare that the above stated dissertation for the degree Master: Information Technology is my own work and that it has not previously been submitted for assessment or completion of any postgraduate qualification to another University or for any other qualification.

ALLISSON CATHERINE EBONY MENTOOR

Abstract

In an effort to improve the South African healthcare system, the Department of Health in South Africa is investing in National Health Insurance to support and deliver access to quality healthcare services within affordable boundaries. Enhanced delivery and quality of care to patients is supplemented through an increased emphasis on the adoption of eHealth technologies and systems. Within the context of efforts to improve access to quality and affordable healthcare services, there is also increasing awareness of the need to adopt a patient centred care approach as a means of caring for the patient, rather than only caring for the disease. Patient centred care emphasises the need for patients to be actively involved in the decision making process with regards to their needs and treatment.

Social networking is viewed as a useful tool to support patient centred care and to improve on healthcare delivery. The use of social networking services beyond the healthcare context has increased exponentially. This has lead to increased interest in the application of social networking in healthcare. This leads to the problem statement of this research, which is **the proliferation of social networking services and the lack of understanding of the prospect of social networking services for patient centred care in South Africa.**

In order to address this problem, the research investigates three areas of focus, namely patient centred care, the South African healthcare sector and social networking services. This generates an understanding of the meaning of patient centred care in general, and also in this study; the status quo in South African healthcare and the incorporation of patient centred care within selected strategic healthcare directives; social networking services in general as well as its application in healthcare; and the factors affecting the use of social networking services for patient centred care in the South African healthcare context. The factors are analysed to explore the prospects of social networking services for patient centred care in South African healthcare. The outcome of this analysis represents a useful input for healthcare providers and administrators in government.

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“It always seems impossible until it's done.” – Nelson Mandela

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Acronyms

AIDS	Acquired Immune Deficiency Syndrome
ANC	African National Congress
CSIR	Council for Scientific and Industrial Research
GDP	Gross Domestic Product
HIV	Human Immunodeficiency Virus
IT	Information Technology
NHI	National Health Insurance
NHNSF	National Health Normative Standards Framework
NHS	National Health System
PHC	Primary Health Care
SWOT	Strengths Weaknesses Opportunities Threats
SNS	Social Networking Service
TB	Tuberculosis
TOWS	Threats Opportunities Weaknesses Strengths
WHO	World Health Organization

CHAPTER 1: INTRODUCTION

This chapter serves as an introduction to the remainder of the dissertation. It introduces the research problem, problem statement, research questions, research objectives as well as the research methodology.

The topics discussed are outlined as:

Introduction

This chapter provides a background discussion of the topics of interest in this research; being the South African National healthcare system, the concepts of patient centred care and social networking services. These topics relate to the research problem area and will be useful when identifying the problem statement, research objectives and research questions related to the study.

1.1.1. South African National Healthcare System

Harrison (2010) states that since the restructuring of the public health sector in 1994, by 2010 there was a clear improvement with regards to access to healthcare, rationalisation of healthcare management and reasonable healthcare expenses, in the healthcare system in South Africa. The author, however, emphasises that although there have been improvements, there are still areas that need improving; for example the increased burden of disease, weak healthcare systems management and low staff morale.

The Department of Health in South Africa is in the process of instituting initiatives like that of the National Health Insurance (NHI), to support and deliver access to affordable health services to South African citizens. The Department of Health (2011) states that as it currently stands, the financing of healthcare in South Africa is two-tiered, meaning that healthcare financing is either through the use of medical schemes or paid out of patients own pockets (private sector), or through the fiscus, mainly for the public sector. The purpose of NHI is to provide the necessary financial coverage to all patients within the country leading to equity in healthcare provision.

With the evolvement of technology today, the South African National healthcare system is taking a direction of adopting technology in such a way as to enhance the delivery and quality of care to patients through eHealth technologies. eHealth can be understood as the use of information and communication technologies (World Health Organization, 2015), whereby healthcare services and information are being provided through the internet (Jacobs, n.d.).

Documents like the eHealth Strategy for South Africa (National Department of Health South Africa, 2012) and the National Health Normative Standards Framework for Interoperability (Council for Scientific and Industrial Research (CSIR) & Department of

Health, 2014) in eHealth in South Africa can be used as guidance for enhancing the delivery and quality of patient centred care through the use of eHealth technologies.

The Director-General of Health explains in the foreword to the eHealth strategy, that the strategy aims to support medium-term priorities of the public health sector, introducing future public sector eHealth requirements as well as the foundation for the integration and coordination for eHealth initiatives in the country (National Department of Health South Africa, 2012).

The Council for Scientific and Industrial Research (CSIR) and the Department of Health have introduced the National Health Normative Standards Framework (NHNSF) for Interoperability in eHealth in South Africa focusing primarily on the interoperability surrounding patient centred healthcare management information systems (Greenwald et al., 2010). Research leading to the creation of the NHNSF found that capturing the medical history of the patient is one of the most prevalent processes, but less than a third of healthcare management information systems surveyed supported patient centred care processes (CSIR & Department of Health, 2014).

1.1.2. Patient Centred Care

Patient centred care has “derived from client-centred therapy and a person-centred approach and is founded on the research of Carl Rogers and others from the 1940s” (Ellis, 2012). Other terms for referring to patient centred are patient-centric (CSIR & Department of Health, 2014) and patient-based, which is based upon the health measures in gaining insight about a patient’s health, illness as well as the effect of healthcare on the patient, from the patient’s perspective (Greenhalgh & Meadows, 1999).

Ellis (2012) contends that the key to patient centred care is that of allowing the patient to be involved from the beginning of the decision making process to understand the expectations of the patients, as well as the patient’s feelings or fears. The author further explains that patient centred care is focused on personal rather than impersonal care as well as caring for the patient rather than only caring for the disease.

Patient centred care can be viewed from the perspectives of the health professional and the patient:

- For the health professional, patient centred care is knowing that the needs of the patient are more important than the needs of the health professional. Communication with the patient and involving the patient in decision making processes important to the needs of the patient are equally significant (Hanna, 2010). Patient centred care improves the relationship between the health professional and the patient through communication, which ultimately improves the patient satisfaction (Greenhalgh & Meadows, 1999).

- For the patient, patient centred care is the need for the patient to actively participate in the decision process with regards to the patient's needs (Goodman, 2010). With the patient being the centre of patient centred care, the patient is empowered and this may improve patient satisfaction and adherence to patient treatment (Greenhalgh & Meadows, 1999).

With the evolvement of technology being an influence on the healthcare system, the use of social networking services are now becoming influential to patient centred care, as the majority of patients integrate the use of social networking services on a daily basis as part of their personal lives (Eckler, Worsowicz, & Rayburn, 2010).

1.1.3. Social Networking Services

This section will introduce social networking services and further introduce social networking services in the healthcare context in Section 1.1.4.

Social networking services (SNS) as defined by Boyd and Ellison (2007) are web-based services that allow individuals to: construct a public or semi-public profile within a bounded system; articulate a list of users with whom they share a connection; and view and traverse their list of connections and those made by others within the system; whereby the nature and nomenclature of these connections may vary from site to site.

In the literature, the term "social networking" is used interchangeably with the term "social media". Social media can be described as a set of technology tools bringing individuals together and encouraging social networking, as well as dialog communication (Eckler et al., 2010). In this dissertation the term Social Networking Service will be used for consistency.

The first social network site was SixDegrees.com which according to Boyd and Ellison (2007) was first established in 1997. Since then the number of social networking sites has increased enormously. In the year 2014 the social network Facebook had 1.23 billion monthly active users, 945 million mobile users and 757 million daily users (Protalinksi, 2014).

With the large number of individuals using social networking services in general, it is imperative to understand the use of social networking services and how they can be used within the healthcare system.

1.1.4. Social Networking Services and Healthcare

Eckler, Worsowicz and Rayburn (2010) state that many healthcare providers are making use of social networking services to communicate and provide services to patients. The author cites Facebook, Twitter and YouTube are used to allow for the sharing of health information.

Social networking services in healthcare are not just restricted to the abovementioned services. The social networking services in healthcare can include for example blogs, microblogs, social networking -, professional networking -, thematic networking - and media sharing sites. One example of how this has been used in healthcare is the Sharing Mayo Clinic blog, where patients are able to share experiences like that of receiving a kidney transplant leading to saving a family member's life or sharing an experience of having colorectal cancer (Mayo Clinic, 2015).

Social networking services are changing the way in which patients are interacting with healthcare professionals and healthcare organisations, as patients can now share and discuss ideas and opinions surrounding patient centred care through these social networking services (Sarasohn-Kahn, 2008). The use of social networking services in healthcare allow for patients and healthcare providers to access and share information pertaining to the patient in a timely and efficient manner and can improve clinical outcomes as well as cost reduction (Kamel Boulos & Wheeler, 2007).

Although social networking services can be beneficial to the healthcare environment, it is also to be noted that there can be disadvantages to social networking services. These can range from patients' and healthcare professionals' privacy being violated, to patients misinterpreting comments made on social networking services (Eckler et

al., 2010). Nevertheless, as patients are adopting social networking services on a daily basis, social networking services within the healthcare system can be beneficial to both patient engagement and ultimately patient centred care (Sarasohn-Kahn, 2008).

1.2. Problem Statement

The general use of social networking services has increased exponentially. It has been stated that it can generally be accepted as a useful tool to support patient centred care and improve on healthcare delivery (Rowley, 2014). A literature review revealed that there is limited research on how social networking services can support patient centred care in the South African healthcare system.

The problem addressed in this research is therefore the proliferation of social networking services and the lack of understanding of the prospect of social networking services for patient centred care in South Africa.

1.3. Research Question

The primary research question that this study aims to answer is: What is the prospect of social networking services for patient centred care in the South African national healthcare system?

The following sub-questions will be addressed as part of the proposed research:

- How does South Africa incorporate patient centred care in its strategic healthcare directives?
- What social networking services are available in healthcare?
- What factors influence the use of social networking services for patient centred care in the South African healthcare system?
- How do these factors affect the prospect of social networking services to support a patient centred care approach in South Africa?

1.4. Research Objective

The primary research objective of this dissertation is to determine the prospect of social networking services for patient centred care in the South African national healthcare system. The sub-objectives to be met are:

- Determine how South Africa incorporates patient centred care in its strategic healthcare directives.

- Explore social networking services in healthcare.
- Identify factors that influence social networking services for patient centred care in the South African healthcare system.
- Determine how the identified factors affect the prospect of social networking services to support a patient centred care approach in South Africa.

1.5. Research Process

It is important to follow a structured research process to meet the objectives set for this research.

The research process that was conducted is illustrated in Figure 1.1. In order to address the problem, a number of research questions and objectives were determined. For the purpose of data collection and data analysis, literature review, qualitative content analysis and logical argumentation were used.

Literature review and qualitative content analysis were used to determine what the term patient centred care means as well as identify the elements of patient centred care and its incorporation in the South African strategic healthcare directives.

A literature review informed the identification of the social networking services currently being used in the healthcare environment.

Lastly, literature review informed the factors that influence the use of social networking services for patient centred care in the South African healthcare environment. Further literature review was conducted to identify suitable tools that could be used to analyse the identified factors. The analysis was done using Strengths, Weaknesses,Opportunities & Threats (SWOT) and Threats, Opportunities, Weaknesses & Strengths (TOWS) matrices, strategic tools considering the four elements of **s**trengths, **w**eaknesses, **o**pportunities and **t**hreats, to argue and present the analysis. This analysis informed the prospect of social networking services to support a patient centred care approach in South Africa.

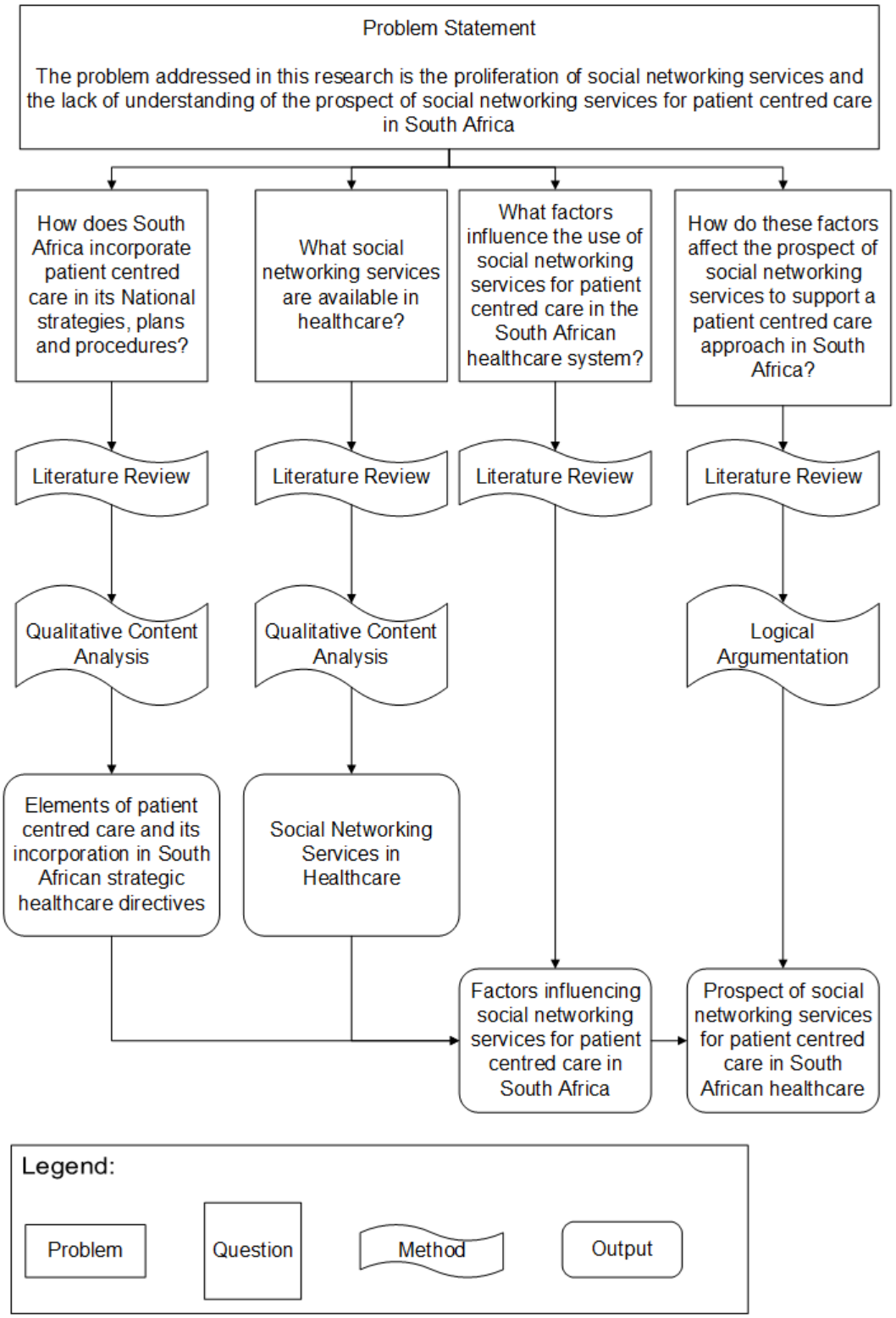


Figure 1.1: Research process

1.6. Research Methods

The data sources or methods of data collection as well as the methods of data analysis used in this research were identified in Section 1.5 (refer to Figure 1.1: Research Process). Figure 1.1 also illustrates which methods are relevant to each research question and how the output obtained, feeds into the final output. The methods used for purposes of this research are subsequently discussed in more detail in Sections 1.6.1 and 1.6.2.

1.6.1. Data Collection

The primary method of data collection in this research was literature review. A literature review can be explicated as a collection of published information and data relevant to a research question where information can be in the form of scholarly journals and books etc. (Curtis, 2011). Hart (1998) defines a literature review as the selection of available documents on the topic which contain information, ideas, data and evidence.

A literature review which reviews available literature in a field of study without collecting any primary data, with the results from the reviewed studies analysed as data in order to answer a research question, is also referred to as a stand-alone literature review (Okoli & Schabram, 2010).

In this study data collection was in the form of a stand-alone literature review which as described above by Okoli & Schabram (2010), reviews available literature in the field of study without collecting any primary data. The results from the reviewed studies were analysed as input to answer the research questions.

An initial literature review conducted in February and March of 2015 to gain a broad understanding of patient centred care, South African healthcare and social networking services, played an important role in identifying and substantiating the research problem. A more in-depth literature study was conducted throughout the duration of 2015 and 2016.

The search protocol included a variety of online publications and academic databases including EBSCOhost, Sage, ScienceDirect, Elsevier, as well as Google Scholar. Others included the South African Health Department website as well as the World Health Organization (WHO) website. The search strings included “patient centred

care", "patient centred care elements", "patient centred care and social networking services", "social networking services", "social networking services types", "social networking and healthcare", "SWOT analysis", "TOWS matrix" and various combinations of these search strings.

The data collected through the application of the search protocol were analysed systematically as explained in Section 1.6.2.

1.6.2. Data Analysis

For purposes of data analysis, qualitative content analysis and logical argumentation were applied.

1.6.2.1. Qualitative Content Analysis

Patton (2002) defines qualitative content analysis as any qualitative data reduction and sense-making effort that takes a volume of qualitative material and attempts to identify core consistencies and meanings. Qualitative content analysis can further be understood as the examination of data that is the product of open-ended data collection techniques which are aimed at detail and depth rather than measurement (Forman & Damschroder, 2007). Qualitative content analysis focuses on analysing textual data and reducing it to segments and reorganising the textual data to allow conclusions to be made (Miles & Huberman, 1994).

For purposes of this study, the deductive qualitative content analysis approach was used based on the textual data collected in the form of published literature. Deductive content analysis involves two phases (Elo & Kyngäs, 2008):

- Phase 1: Develop a categorization matrix – generally based on earlier work like theories, models, mind maps and literature review; and
- Phases 2: Code data according to the categories – the data is reviewed for content and coded for correspondence with the identified categories.

In particular, the deductive content analysis approach was used to identify the elements of patient centred care. This is reported in Chapter 2 of the dissertation.

1.6.2.2. Logical Argumentation

Argumentation is a technique in research used to strengthen claims or statements by providing supporting evidence (Olivier, 2009).

In Section 1.5 it was mentioned that SWOT and TOWS matrices are applied in the research to analyse factors that influence the use of social networking services for patient centred care in the South African healthcare environment. The data analysis method of logical argumentation was used while conducting the SWOT to substantiate the categorisation of the factors as strengths, weaknesses, opportunities and threats. It was further used to substantiate strategies based on TOWS matrix strategic groups as identified by Ravanavar & Charantimath (2012). For example, the *Strength – Opportunities* (SO) strategic group considers how to use internal strengths to take advantage of external opportunities. The use of the SWOT and TOWS matrices is further explained in Chapter 5, Section 5.1.

1.7. Ethical Considerations

Ethical considerations will be based on the following five principles (Lund Research Limited, 2012):

- Minimising the risk of harm;
- Obtaining informed consent;
- Protecting anonymity and confidentiality;
- Avoiding deceptive practices; and
- Providing the right to withdraw.

Of the five ethics principles listed above, the principles used for purposes of the study will be avoiding deceptive practices and minimising the risk of harm. By using the principles of avoiding deceptive practices and minimising the risk of harm, the researcher will ensure that any information gathered will be obtained from credible sources and that the findings of the research will endeavor to highlight both the positive and the negative aspects of social networking services for patient centred care in South Africa.

1.8. Chapter Outline

The research is reported in this dissertations in six chapters that make up the dissertation. The chapter outline is subsequently discussed.

Chapter 1: Introduction

This chapter introduces readers to the problem statement along with identifying the specific research questions and research objectives as well as the research process and methods applied to address the problem statement.

Chapter 2: Patient Centred Care

This chapter focuses solely on understanding the patient centred care concept. The chapter starts by investigating what the term patient centred care means, by understanding its definition, investigating patient care models and ultimately identifying the core elements to the patient centred care concept.

Chapter 3: South African National Healthcare System

This chapter explores the healthcare system of South Africa and how it incorporates patient centred care in its national strategic directives. The chapter starts off with a historic overview of healthcare in South Africa, leading into the status quo and efforts towards improving healthcare in South Africa. Challenges faced in the South African healthcare system are highlighted. The chapter concludes by analysing selected South African national strategic healthcare directives and how each of these incorporate the patient centred care elements identified in Chapter 2.

Chapter 4: Social Networking Services and Healthcare

This chapter is based on social networking services and the impact thereof on the healthcare system. The chapter explores social networking services types for general use, while also exploring social networking services applications available and developing in healthcare. The chapter concludes by discussing the challenges of using social networking services in the healthcare context.

Chapter 5: Social Networking Services for Patient Centred Care in South Africa

This chapter firstly identifies tools that may be used to analyse social networking services for patient centred care in South Africa, viz., SWOT and TOWS matrices. Secondly, the chapter identifies factors affecting the use of social networking services for patient centred care in the South African healthcare environment. Lastly, it presents the analysis of the identified factors using the SWOT and the TOWS tools.

Chapter 6: Conclusion

This chapter concludes the research by revisiting the research problem statement, research questions and research objectives. The presentation of the research in the dissertation is reiterated and summarised in a chapter overview. The chapter concludes with the limitations of the research and suggestions for future research.

1.9. Conclusion

This chapter introduced the areas that will be covered throughout the remainder of the dissertation namely patient centred care, which is a core concept of the research, the South African national healthcare system and social networking services. By reviewing these areas the problem statement was identified, whereafter the research objectives and research questions, research process, research methods and ethical considerations were determined. The chapter concluded by providing a chapter outline of the dissertation.

CHAPTER 2: PATIENT CENTRED CARE

The previous chapter established the importance of the research to be undertaken for purposes of the study. This chapter is aimed at exploring the concept of patient centred care in more detail.

The topics discussed are outlined as:

Introduction

Patient centred care was first introduced in Chapter 1. This chapter aims to explore the patient centred care concept not only to fully understand the concept, but also to come to an understanding of what patient centred care will mean for the purpose of this study. Furthermore, it analyses patient centred care models and frameworks in order to identify elements that constitute the patient centred care concept.

2.1 The concept of Patient Centred Care

Patient centred care has been recognised as a contributing factor to the healthcare system (Greene, Tuzzio, & Cherkin, 2012). Implementing the patient centred concept has been problematic due to lack of a clear definition and method of measurement (Pelzang, 2010). Currently there is no single definition for the concept of patient centred care. This section aims to identify a definition for the patient centred care concept for the purpose of the study. A selection of definitions is shown below:

> "care provision that is consistent with the values, needs, and desires of patients and is achieved when clinicians involve patients in healthcare discussions and decisions"(Constand, MacDermid, Bello-Haas, & Law, 2014, p2)

> "a phrase used by healthcare professionals to describe a quality of interactions between patients and healthcare workers that ultimately affect patient outcomes" (Epstein, Fiscella, Lesser, & Stange, 2010, p2)

> "care that is holistic, empowering and that tailors support according to the individual's priorities and needs"(Royal College of General Practitioners, 2014, p9)

> "Patient centred care as an overall concept is a concept which aims to combine organizational commitment to support and meet the needs as well as expectations of patients"(Mitchell, Bournes, & Hollett, 2006, p218).

> "care that is respectful and responsive to individual patient preferences, needs and values and ensuring that patients' values guide all clinical decisions"
>
> (Institute of Medicine, 2001, p3)

The prominent phrases that are evident from the listed definitions are:

- Patient needs;
- Patient involvement; and
- Patient expectation.

Thus for purposes of this study, patient centred care will be described as the need for the patient to be actively involved in the decision making process with regards to the patients' needs and treatment, while also having the patient be at the centre, leading to an improvement of patient satisfaction when the expectations of the patient are met.

Patient centred care is further emphasised as a partnership among the involved parties (practitioners, patients and patient families), to ensure the patient's wants and needs are not only respected but also to ensure that the patient is educated and supported where necessary; or in the case of the patient being illiterate to make decisions regarding care (Institute of Medicine (US) Committee on the National Quality Report on Health Care Delivery, 2001).

The purpose of patient centred care is to improve the quality of healthcare by promoting patient involvement and ensuring that patients are aware of their role and responsibility with regard to healthcare (Robinson, Callister, Berry, & Dearing, 2008). Patient centred care is a key component to the healthcare system, ensuring that patients have access to the kind of care that works for them (Davis, Schoenbaum, & Audet, 2005).

Having discussed the patient centred care concept, an overview of patient centred care models and frameworks discussed in literature, is provided in the next section.

2.2 Patient centred care models

A review of literature reveals different models and frameworks for patient centred care. These are summarised in Table 2.1 and further analysed in the next section.

1) A 2020 vision of Patient-Centred Primary Care (Davis et al., 2005) **Country/Region of data collection: New York, USA**		
Summary	**Findings**	**Clinical Area**
A qualitative study whereby the author attempts to define the patient centred care vision and proposes **7 attributes** of patient centred care which could produce better patient satisfaction.	1) Superb access to care 2) Patient engagement in care 3) Clinical information systems that support high-quality care, practice based learning and quality improvement 4) Care coordination 5) Integrated, comprehensive care and smooth information transfer across a fixed virtual team of providers 6) Ongoing, routine patient feedback to a practice 7) Publicly available information on practices	Primary Care
2) Getting it right: why bother with patient-centred care? (Bauman, Fardy, & Harris, 2003) **Country/Region of data collection: Sydney**		
Summary	**Findings**	**Clinical Area**
The paper discusses patient centred care by acknowledging the **3 principles** of patient centred care while also highlighting the importance for healthcare organisations to recognise the patient centred care concept. The study is qualitative and is based on the rationale and methods of patient centred care.	1) Communication with patients 2) Partnerships 3) Health promotion and healthy lifestyles	Chronic Illness

3) **Preferences of patients for patient centred approach to consultation in primary care: observational study (Little et al., 2001)** **Country/Region of data collection: United Kingdom**		
Summary	**Findings**	**Clinical Area**
An observational study from a patient perspective which aims to identify the patients' preferences for patient centred care as well as the **3 domains** for patient centred care through quantitative method.	1) Communication 2) Partnership 3) Health promotion	General Practice
4) What are the core elements of patient-centred care? A narrative review and synthesis of the literature from health policy, medicine and nursing (Kitson, Marshall, Bassett, & Zeitz, 2013) **Country/Region of data collection: Australia**		
Summary	**Findings**	**Clinical Area**
By using qualitative methods, the authors reviewed patient centred care in heath policy, medical and nursing literature of which the aim of the paper is to identify the **3 core elements** of patient centred care.	1) Patient participation and involvement 2) The relationship between the patient and the healthcare professional 3) The context where care is delivered	General Healthcare

5) A framework for making patient centred care front and center (Greene et al., 2012) **Country/Region of data collection: Seattle**		
Summary	**Findings**	**Clinical Area**
A qualitative study whereby the proposition of a framework to identify ways to integrate patient centred care into healthcare systems is proposed. The paper further identifies the **3 domains** for patient centred care.	1) Interpersonal Dimension (relationship aspect) includes communication, knowing the patient and the importance of teams. 2) Clinical Dimension (provision of care aspect) includes clinical decision support, coordination and continuity and types of encounters. 3) Structural Dimension (system features aspect) includes built environment, access to care and information technology.	General Healthcare

Table 2.1: Patient centred care models and frameworks

The table gives an overview of the patient centred care models and frameworks found within literature and summarises each model that was reviewed. A more in depth analysis is done in the next section to identify the recurring themes that can be drawn from each model that was reviewed, in order to propose a consolidated list of elements of patient centred care.

2.3 Patient centred care elements

A review of literature revealed various models and frameworks of patient centred care. This section analyses the models and frameworks summarised in Table 2.1, in order to identify the common themes found amongst them, to be classified as patient centred care elements.

An initial analysis was done to record each of the models and frameworks in a spreadsheet of which the aim was to identify all themes from the five models and frameworks presented in Table 2.1. The process followed is described below:

Step 1: Each attribute, principle, domain or core element (as identified in the model or framework) was read in the context of the model description.

Step 2: A theme which best represented the attribute, principle, domain or core element, was identified and listed in the spreadsheet. Additionally, role-players identified in the text (in relation to the theme), were listed alongside the theme in order to identify the participants (or actors) in patient centred care.

Step 3: The next attribute, principle, domain or core element was read and “tested” against existing themes.

Step 4: A new theme and/or actors were created if necessary and listed in the spreadsheet.

The process was repeated until all attributes, principles, domains or core elements were classified against a theme.

During Round 1 of the process, the researcher independently followed the process described above and as a result identified the following themes and actors.

Themes:

- Healthcare Context/Facility
- Patient Engagement
- Health Promotion
- Relationships

Actors:

- Patient
- Doctor
- Other healthcare professionals
- Family
- Community
- Healthcare system

Upon Round 2 of the process, the researcher independently and subsequently together with the supervisor, followed the process to identify any sub themes and meta themes from the themes identified in Round 1. At the end of Round 2 the following themes, sub-themes and actors were identified.

Themes:

- Healthcare Context
    - Care Environment
    - Information Technology (IT)
- Patient Engagement
    - Communication
    - Relationships
    - Health Promotion

Actors:

- Patient/Designated Surrogate
- Doctor
- Other healthcare professionals
- Family/Community
- Management

In order to enhance rigor and reduce bias, an independent researcher conducted Round 3 of the process. The external independent researcher suggested that the nature or involvement of the actors be differentiated between enabling actors and participating actors as well as suggested changes to actors and theme identification. The researcher and supervisor then revised the themes, sub-themes and actors taking into account the suggestions made by the independent researcher.

The final themes, sub-themes and actors that were identified along with their mapping to the models and frameworks are presented in Table 2.2. It should be noted that the interpretation of the meaning of the attributes, principles, domains or core elements from the models and frameworks were limited to (1) the meaning within the context of that particular model or framework; and (2) the clinical domains within which the models and frameworks were conceptualised.

Model / Framework	Theme					Actors				
	Healthcare Context		Patient Engagement							
	Care Environment	Information Technology (IT)	Communication	Relationships	Health Promotion	Patient/Designated surrogate	Doctor	Other healthcare professionals	Family/Community	Management
Model 1: A 2020 vision of Patient-Centred Primary Care (Davis et al., 2005)										
Superb access to care	✔									
Patient engagement in care			✔		✔	✔	✔			
Clinical information systems that support high-quality care, practice based learning and quality improvement		✔								
Care coordination	✔									✔
Integrated, comprehensive care and smooth information transfer across a fixed virtual team of providers	✔			✔			✔	✔		
Ongoing, routine patient feedback to a practice			✔			✔				

Model / Framework	Theme						Actors				
	Healthcare Context		Patient Engagement				Patient/Designated surrogate	Doctor	Other healthcare professionals	Family/Community	Management
	Care Environment	Information Technology (IT)	Communication	Relationships	Health Promotion						
Publicly available information on practices			✔								
Model 2:Getting it right: why bother with patient-centred care? (Bauman et al., 2003)											
Communication with patients			✔				✔	✔	✔	✔	
Partnerships				✔			✔	✔	✔	✔	
Health promotion and healthy lifestyles					✔		✔	✔	✔		
Model 3: Preferences of patients for patient centred approach to consultation in primary care: observational study (Little et al., 2001)											
Communication-understanding the whole person and the family and how life is affected			✔				✔	✔			
Partnership-finding common ground ,roles of doctor and patient				✔			✔	✔			
Health Promotion -health enhancement,risk deduction,early dtection of disease					✔		✔	✔			
Model 4: What are the core elements of patient-centred care? A narrative review and synthesis of the literature from health policy, medicine and nursing											
Patient participation and involvement			✔				✔	✔	✔		
The relationship between the patient and the healthcare professional				✔			✔	✔	✔		
The context where care is delivered	✔										✔

Model / Framework	Theme						Actors				
	Healthcare Context		Patient Engagement								
	Care Environment	Information Technology (IT)	Communication	Relationships	Health Promotion		Patient/Designated surrogate	Doctor	Other healthcare professionals	Family/Community	Management
Model 5: A framework for making patient centred care front and center (Greene et al., 2012) mapped with patient centred care elements.											
Interpersonal Dimension (relationship aspect) includes **communication**, **knowing the patient** and the **importance of teams**.			✔	✔			✔	✔	✔	✔	✔
Clinical Dimension (provision of care aspect) includes **clinical decision support**, **coordination** and **continuity and types of encounters**.	✔				✔			✔	✔	✔	✔
Structural Dimension (system features aspect) includes **built environment**, **access to care** and **information technology**.	✔	✔									✔

Table 2.2: Patient centred care themes, sub-themes and actors

This section was aimed at identifying themes, sub-themes and actors in relation to the concept of patient centred care. Table 2.2 above shows the findings after analysis of five documented models and frameworks for patient centred care.

The two identified themes and five sub-themes of patient centred care are:

- Healthcare Context
    - Care Environment
    - Information Technology (IT)
- Patient Engagement
    - Communication
    - Relationships
    - Health Promotion

The five identified actors are:

- Patient/Designated Surrogate
- Doctor
- Other healthcare professionals
- Family/Community
- Management

The identified themes and sub-themes of patient centred care will subsequently be referred to as the **two meta-elements** (healthcare context and patient engagement) and **five elements** (care environment, information technology, communication, relationships and health promotion) of patient centred care.

Section 2.4 discusses the actors that participate in patient centred care in more detail. Thereafter, Section 2.5 provides an in depth overview of the five elements of patient centred care.

2.4. Patient centred care: actors

The actors mentioned in Table 2.2 serve either in the role of enablers or participants in the patient centred care context. The actors are further described in Table 2.3.

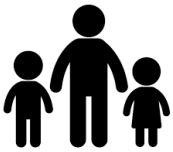
Actor	Description	Graphical Representation
Patient/Designated Surrogate	The patient is understood to be the one to whom the care is given and is seen as a participant in patient centred care. The designated surrogate serves as the locus of decision making for incapacitated patients (Davis et al., 2005).	
Doctor	The doctor is one who gives treatment or consults with the patient and is seen as a participant in patient centred care.	
Other Healthcare Professionals	Other healthcare professionals can be nurses, caregivers etc. that also give treatment or consultation to the patient or designated surrogate and are participants in patient centred care.	
Family/Community	Family and/or community is understood as those who give support to the patient/surrogate and are seen as participants in patient centred care.	
Management	Management are the higher-level healthcare institution members who are responsible for ensuring that the correct measures and such are in place for healthcare delivery. Management serve as enablers in the provision of patient centred care.	

Table 2. 3**: Patient centred care: actors**

2.5 Patient centred care: elements

This section discusses the five elements of patient centred care as identified in Section 2.3. The **healthcare context** meta-element is discussed at the hand of its two elements (care environment and information technology) in Sections 2.5.1 – 2.5.2. The **patient engagement** meta-element is discussed at the hand of its three elements (communication, relationships and health promotion) in Sections 2.5.3 – 2.5.5. The discussion is summarised in Section 2.5.6.

2.5.1 Care Environment

The analysis presented in Table 2.2 shows that the care environment in which the patient receives care is supported by three out of the five models that were analysed. The care environment can be understood as the provision of access to care in which the patient can have the ease of making an appointment and efficient use of the time spent during consultation (Davis et al., 2005).

The actors responsible for ensuring the care environment supports patient centred care are the healthcare provider, other healthcare professionals, family and community and management.

Figure 2.1 is a diagrammatic representation of the care environment element.

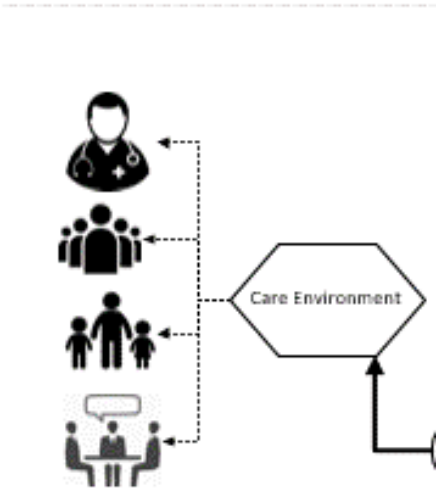


Figure 2.1: Diagrammatic representation of the care environment element

2.5.2 Information Technology (IT)

Two of the five models in Table 2.2 supported the Information Technology (IT) element. This shows that there is a need for IT to be present in patient centred care and that there is a need for management to ensure that IT systems are in place to support patient centred care. IT in patient centred care can be healthcare information systems that support computer based guidance and communication systems (Davis et al., 2005).

The only actor involved in the information technology element is management, who are responsible for ensuring that the necessary information technology infrastructure is in place to support patient centred care.

Figure 2.2 is a diagrammatic representation of the IT element.

Figure 2.2: Diagrammatic representation of the IT element

2.5.3 Communication

Communication as an element is strongly supported in literature. It is present in all five of the models that were used in the analysis summarised in Table 2.2. Communication can be understood as the sharing of information (Constand et al., 2014) and the need to listen and explore patient concerns and requirements (Little et al., 2001).

Communication can involve interaction between the patient or designated surrogate, the doctor, other healthcare professionals and the family or community actors. In summary, communication is the need for the patient to be informed in all instances of care pertaining to that patient. Relationships are required to successfully realise the communication element. This is discussed in the next section.

Figure 2.3 is a diagrammatic representation of the communication element.

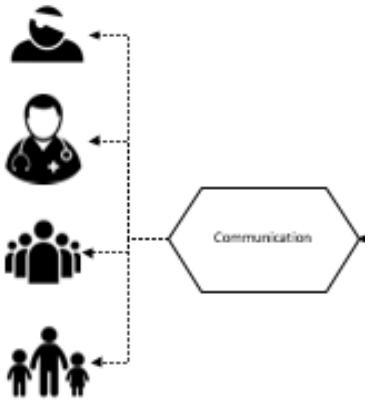


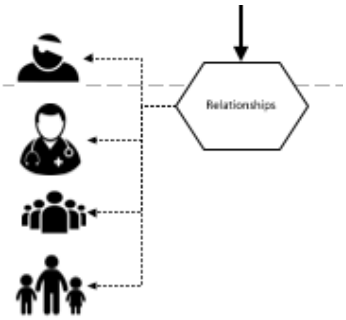
Figure 2.3: Diagrammatic representation of the communication element

2.5.4 Relationships

The relationships element is strongly supported by the models that were analysed as it appears in each of the five models (refer to Table 2.2). The relationship aspect can be understood as building relationships between patient, provider and families as well as inter-professional collaboration between providers (Constand et al., 2014).

Relationships can be between the patient or designated surrogate, the healthcare provider (doctor), other healthcare professionals and the family or community actors.

Figure 2.4 is a diagrammatic representation of the relationships element.



2.5.5 Health Promotion

Figure 2.4: Diagrammatic representation of the relationships element

Four of the five models supported health promotion as an element (refer to Table 2.2). This shows that there is indeed a need for health promotion to be present in patient

centred care. Health promotion can be anything relating to the promotion of how to stay healthy and reduce the risk of future illness (Little et al., 2001).

Health promotion information should be provided to the patient or designated surrogate, family and/or community actors by the doctor and other healthcare professionals. Health promotion promotes healthier lifestyles rather than promoting treatments, in order for the patient to lead a healthier life.

Figure 2.5 is a diagrammatic representation of the health promotion element.

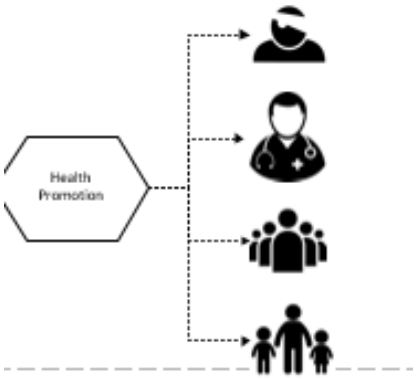


Figure 2.5: Diagrammatic representation of the health promotion element

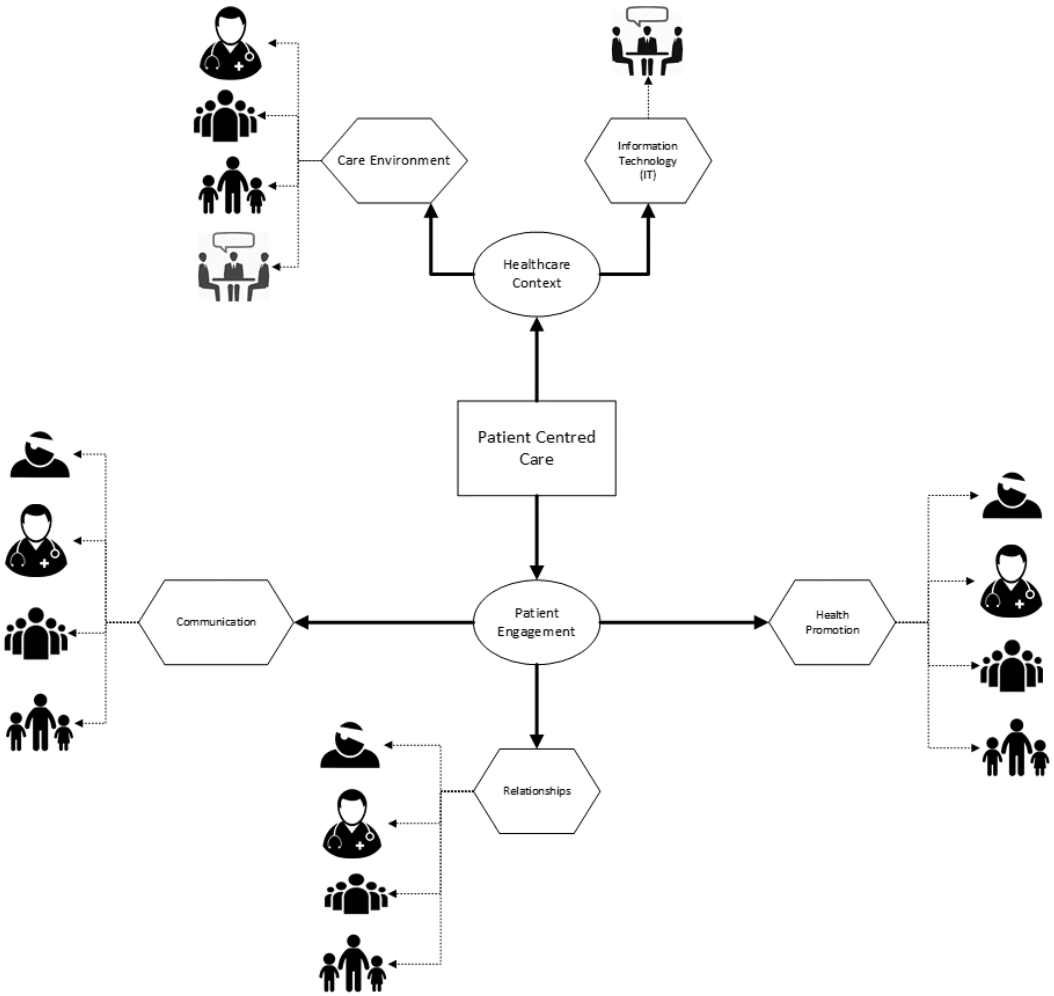
2.5.6 Summary of patient centred care elements

The table below provides a summary of the elements of patient centred care.

Meta-Element	Element	Description
Healthcare context	Care environment	The environment within which the patient receives patient centred care from the doctor, other healthcare professionals, family and/or community.
	Information Technology (IT)	Information systems and technologies by which any health related information is communicated to put the patient centred care concept in practice.
Patient engagement	Communication	Interaction between the patient (or designated surrogate), doctor, other healthcare professionals, family and/or community to discuss all aspects of care pertaining to the patient.
	Relationships	The building of relationships between patients (or designated surrogates), doctors, other healthcare professionals, families and/or communities as well as inter-professional collaboration between providers.
	Health promotion	Promoting healthier lifestyles rather than promoting treatments, in order for the patient to lead a healthier life.

Table 2.4: Patient centred care elements summary

Figure 2.6 provides a graphical representation of the patient centred care concept by showing its meta-elements, elements and all the actors involved in the realisation of the concept.



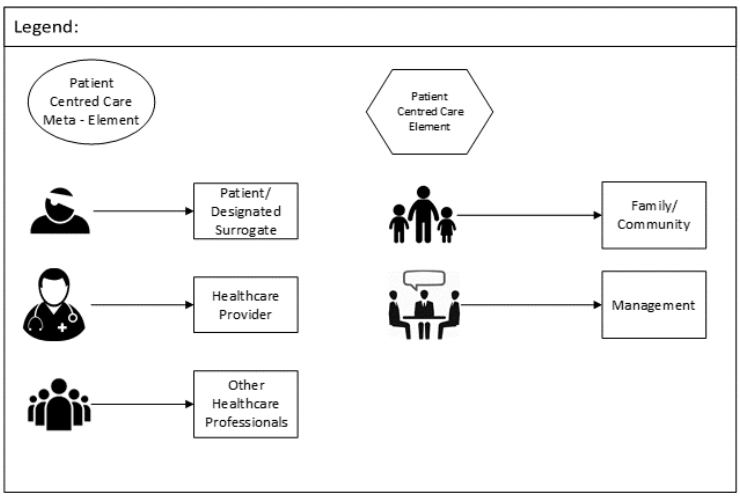


Figure 2.6 Patient centred care elements

2.6 Conclusion

This chapter was aimed at defining the patient centred care concept for purposes of this study. Qualitative content analysis was used to extract the meta-elements, elements and actors of patient centred care from available literature.

In Chapter 3, the focus of the dissertation shifts to the South African healthcare sector. The elements of patient centred care identified in Chapter 2, are used in Chapter 3 to determine how South Africa incorporates patient centred care in its strategic healthcare directives.

CHAPTER 3: SOUTH AFRICAN NATIONAL HEALTHCARE SYSTEM

The previous chapter established what the patient centred care concept entails. This chapter is aimed at exploring South African national healthcare and how it incorporates patient centred care in its strategic healthcare directives.

The topics discussed are outlined as:

Introduction

The South African healthcare system is introduced from a historic point of view before looking at what is currently being done in terms of healthcare in South Africa. The discussion explains public sector healthcare, private sector healthcare, traditional healers and highlights problems experienced and efforts towards improving South African healthcare. The chapter ends by analysing selected South African strategic healthcare directives in order to identify any association with the patient centred care concept as discussed in Chapter 2.

3.1 South African National Healthcare System

The South African Government inherited a fragmented and inequitable health system in 1994, with health departments of four different racial groups and where each of the 10 homelands had its own health department (Cullinan, 2006). The African National Congress (ANC) proposed a National Health Plan for South Africa in 1994, whereby the primary healthcare approach is introduced as a method, to embody the concept of community development and community participation, whilst ensuring that all South Africans have access to healthcare services (African National Congress, 1994).

The South African government adopted the ANC's primary healthcare blueprint and transformed the blueprint to incorporate a district health system (Cullinan, 2006). The Department of Health South Africa holds the responsibility for healthcare and has identified the following outputs as part of the vision in doing so: increase life expectancy, decrease maternal and child mortality, combat Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS), decrease the burden of Tuberculosis (TB) and strengthen health-system effectiveness (South African Government, 2015).

The ANC in 1994 outlined the primary healthcare approach as an underlying philosophy to restructure the healthcare system of South Africa by embodying community participation in the planning, provision, control and monitoring of healthcare services and to guide the overall social and economic development of the community (African National Congress, 1994). The ANC of 1994 based primary healthcare on the definition given in the Declaration of Alma Ata as (International Conference on Primary Health Care, 1978, p1):

> "Primary health care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination".

Along with the primary healthcare approach, the South African Government has passed additional legislations like that of the National Health Act to support this approach (Breslin, 1975). The primary health care approach was used as the basis for restructuring South African healthcare to reduce inequalities to accessing healthcare services (African National Congress, 1994).

Dookie and Singh (2012) define primary healthcare as a public health strategy, where in South Africa the district health system is the driving force for implementing primary healthcare at community level.

The National Health System (NHS) of South Africa as summarised by Coovadia, Jewkes, Barron, Sanders, and McIntyre (2009) consists of:

- National Department of Health responsible for national health policy.
- Nine provincial departments of health responsible for developing provincial policy within the framework of national policy and public health service delivery.
- Three tiers of hospital: tertiary, regional, and district.
- The primary health-care system—a mainly nurse-driven service in clinics—includes the district hospital and community health centres.
- Local government is responsible for preventive and promotive services.
- The private health system consists of general practitioners and private hospitals, with care in the private hospitals mostly funded through medical schemes.
- In 2004 the updated National Health Act legislated for the NHS to incorporate public and private sectors for equitable healthcare services provision.

3.2. Public Sector Healthcare

A patient's first point of entry in the public healthcare sector, is a clinic or community health centre (Coovadia et al., 2009). Clinics offer general health and maternal health care (Whittaker, Shaw, Spieker, & Linegar, 2011). Healthcare services that are beyond the scope of the clinics, are provided at public sector hospitals.

Cullinan (2006) describes the three levels of hospitals in the public sector as:

- Level 1: District Hospitals - This is the first level of referral with care given from clinics and generalist staff like general practitioners with access to basic diagnostic and therapeutic services.
- Level 2: Regional Hospitals - Facilities providing care from both general practitioners and specialists where required. Hospitals providing a single specialist service would fall under this category.
- Level 3: Tertiary Hospitals - Facilities providing care from specialists and sub-specialists. This level is further broken down into:
    - Tertiary 1: Provincial Tertiary Hospitals - Level 3 care is given with the expertise of sub-specialists support for Regional Hospitals. Care requiring expertise of clinicians working as sub-specialists or rare specialties.
    - Tertiary 2: National Referral Hospitals - Provide a defined range of specialised services like Cardiology, Hematology and Spinal Injuries.
    - Central Referral Hospitals: Provide additional sub-specialties like that of Hepatology and Liver Transplant. These hospitals also consist of very highly specialised national referral units that together provide an environment for multi-specialty clinical services, innovation and research.
    - Specialised Hospitals: Facilities that are focused in a hospital like that of spinal injuries, maternity etc. These types of hospitals are those of Psychiatric Hospitals and TB Hospitals.

Healthcare services are funded through the fiscus for public sector users (National Department of Health South Africa, 2011). The Gross Domestic Product (GDP) percentage for health expenditure for the public sector in 2011 was 4.2 % (Day, Gray, & Budgell, 2011).

Public sector healthcare mainly supports patients who are poor and cannot necessarily afford the care given at private sector healthcare level, leaving the public sector healthcare to be overburdened with patients (Maillacheruvu & McDuff, 2014). With only 30% of South African physicians working in public sector healthcare, which serves more than 80% of the population (Keeton, 2010), public sector healthcare providers are often unable to provide care to this large percentage of patients (Wadee, Gilson, Thiede, Okorafor, & Mcintyre, 2003). Thus patients have to return to the public sector healthcare providers repeatedly until care can be given (Maillacheruvu & McDuff, 2014).

3.3. Private Sector Healthcare

Private sector healthcare is used by patients to receive primary care with easier access than at public sector healthcare level (Keeton, 2010). Private sector healthcare has the benefit of shorter waiting times, personal care and better quality of care than that of the public sector healthcare level (Maillacheruvu & McDuff, 2014). These benefits are possible as 70% of healthcare providers work within private sector healthcare (Keeton, 2010) and only serve 14% of the population (Coovadia et al., 2009).

The GDP percentage for health expenditure for the private sector in 2011 was 4.3 % compared to that of the public sector of 4.2 % (Day, Gray, & Budgell, 2015). This shows that the percentages are similar even though the public sector provides for a larger group of people.

Private sector healthcare is primarily comprised of for profit organisations and shareholders serving the population covered by medical schemes or insurance while also including those who pay out of pocket (Blecher, Kollipara, DeJager, & Zulu, 2011).

In the National Health Plan set out by the ANC in 1994, private practitioners were encouraged to work in the public sector on a regular rotational basis and were

considered to play an important role in improving access to healthcare services especially in the rural areas (African National Congress, 1994). In 2013, 7,529 general practitioners and 6,726 specialists were operating in the private sector, while 38% of all nurses worked in both the public and private sectors; leading to the deduction that it is difficult to precisely determine how many healthcare professionals including nurses and practitioners work in the private sector alone (Econex, 2013).

3.4. Traditional Healers

In the National Health Plan by the ANC, traditional healers were acknowledged as an important part to the plan and the need for a more coordinated body was acknowledged (African National Congress, 1994). Traditional African healing is a holistic approach to medicine where disease is believed to be a misalignment or spiritual disorder either internally or externally (Davis, 2012).

In South Africa, the Traditional Healers Organization for Africa is an organisation which trains and certifies traditional health practitioners like that of (Truter, 2007):

- Sangoma (Diviner) – Senior type of traditional healer who defines an illness and divines the circumstances of the illness in the cultural context. Sangomas are usually female and are highly respected in communities.
- Inyanga (Traditional Doctor or Herbalist) – Specialises in herbal and other medicinal preparations for disease treatment. Inyangas are usually male.
- Umthandazi or Umprofiti (Faith Healer or Prophet) – Usually a professed Christian belonging to a Mission or African Independent Church. Umthandazi or Umprofiti usually heal through prayer, laying hands on patients or providing holy water and ash.
- Traditional MidWife/ Birth Attendant – Women who have previously been midwives who focus on pregnancy problems and infant deliveries.

Services rendered by traditional healers are paid for from patients themselves (National Department of Health South Africa, 2007). The South African government views traditional healing as a distinct system within the formal healthcare system of South Africa with equal status to mainstream medicine as well as recognising the fact that South Africans still make use of traditional healers and traditional medicine (National Department of Health South Africa, 2007).

The Traditional Heath Practitioners Act of 2008, is purposed to protect those making use of traditional healers' services while also establishing an Interim Traditional Health Practitioners Council of South Africa providing for the registration, training and practicing of traditional healers relating to Traditional Healing practice in South Africa (National Department of Health South Africa, 2008).

Traditional health practitioners contribute greatly to healthcare delivery but some African countries do not have any structures in place, thus Kasilo, Trapsida, Mwikisa and Lusamba-Dikassa (2010) recommend the following in aiding the institutionalisation of traditional health practices in the African region:

- Adapt WHO tools for institutionalising traditional medicine in health systems to develop national policies, national regulatory frameworks for traditional medicine practice and national strategic plans for implementation policies.
- Continue to produce scientific evidence on the safety, efficacy and quality of traditional medicines using WHO and other relevant research protocols and guidelines.
- Adapt WHO training tools in traditional medicine and primary healthcare to training programs, syllabi and curricula.
- Adapt WHO guidelines and regulatory frameworks for the protection of traditional medicine knowledge and access to biological resources for specific situations
- Actively promote collaboration with all other partners, the scaling-up of cultivation and conservation of medicinal plants for ensuring sustainability of raw materials for research and local production of traditional medicines.
- Foster strong Regional and sub-Regional collaboration in information exchange; play a key role in allocating and mobilising adequate resources and strengthen capacity-building, equipment and other laboratory facilities in collaboration with the private sector.

3.5 Problems Experienced in South African Healthcare

As stated in Chapter 1, the South African healthcare system faces great challenges as it continues to face the burden of disease, weak healthcare systems and low staff morale (Harrison, 2010). These challenges are supported by Maillacheruvu and McDuff (2014). The most predominant challenges faced by South African healthcare

remain those of equitable provision of healthcare services, heavy burden of disease, combatting HIV/AIDS and TB, inadequate human resources for healthcare and strengthening the healthcare system (World Health Organization, 2013).

Weak healthcare systems can be attributed to poor policy implementation and weak management and supportive supervision at the implementation level to improving the health system in South Africa (Coovadia et al., 2009).

The increase in burden of disease is evident from the wide range of diseases healthcare providers in the public sector must treat, including HIV/AIDS and TB which are still two of the biggest diseases South African healthcare is faced with (Maillacheruvu & McDuff, 2014). Having to treat these diseases requires large amounts of time, leaving patients less likely to complete treatment courses (Khumalo, 2014). As recorded by the World Health Organization (WHO), 25% of patients tend to default from TB treatment (Weyer, 2007) and 17.9 % of South Africans adults have HIV/AIDS (UNICEF, 2012).

The South African healthcare system faces a shortage of healthcare workers. In 2011 the estimated shortage of healthcare workers was approximately 80 000 (Public Health Association of South Africa, 2013). Low staff morale also affects the healthcare system as more public sector healthcare providers move to the private sector due to high stress levels and low work satisfaction (George, Atujuna, & Gow, 2013). Those working in the public sector are often spread too thin resulting in unpleasant working conditions (Maillacheruvu & McDuff, 2014). Thus South African government needs to work on making the public healthcare sector a better environment for healthcare providers to work in as this can lead to an increase in staff numbers for the pubic healthcare sector (Maillacheruvu & McDuff, 2014) .

3.6 Towards improving healthcare in South Africa

There are numerous directives relevant to improving healthcare in South Africa. The strategic healthcare directives to be discussed within this section include:

- World Health Organization (WHO) Country Cooperation Strategy for South Africa (World Health Organization, 2013);
- South African Strategic Health Plan (National Department of Health South Africa, 2014);

- National Health Insurance (NHI) – White Paper (National Department of Health South Africa, 2015);
- Community Oriented Primary Care - Ward Based Primary Health Care (PHC) Outreach Teams: Implementation Toolkit ("Ward Based PHC Outreach Teams: Implementation Toolkit," 2011); and
- the eHealth Strategy: South Africa (National Department of Health South Africa, 2012).

The discussion of each directive is presented in Sections 3.6.1 – 3.6.5. For each directive, an overview is provided. Thereafter the directive is analysed in relation to the concept of patient centred care, in particular, its incorporation of the elements of patient centred care.

As a reminder, the patient centred care concept was discussed in Chapter 2, in which its two meta-elements (healthcare context and patient engagement) and five elements (care environment, information technology, communication, relationships and health promotion) were identified (refer to Section 2.5.6).

3.6.1. World Health Organization Country Cooperation Strategy for South Africa

The WHO is involved in assisting the strengthening of national health services upon request from governments. The WHO country cooperation strategy for South Africa is aimed at aligning the WHO's contribution with the national health planning cycles and priorities of South Africa and outlines the following four strategic priorities (World Health Organization, 2013):

Strategic Priority 1: Promote Universal Health Coverage (UHC) and financial risk protection for all South Africans, through support to strengthening health systems.

Strategic Priority 2: Accelerate gains in life expectancy through focused programs to reduce the burden of HIV/AIDs and TB, and to expand access to immunisation.

Strategic Priority 3: Advance cost-effective measures that enable people to live in a healthy environment and make behavioural choices that promote longer healthier lives.

Strategic Priority 4: Support South Africa's contribution and leadership to achieving global and regional health goals.

One of the aspects strongly advocated in the WHO strategy, is the promotion of universal health coverage to which the envisaged South African National Health Insurance (NHI) is the central means. Universal health coverage envisages all South Africans access to quality healthcare services (National Department of Health South Africa, 2015).

An initial analysis of the WHO Country Cooperation Strategy for South Africa reveals that it does not make mention of the exact term "patient centred care". Further analysis shows that this directive does address the patient centred care elements as follows:

- Care Environment: The WHO strategy supports the strengthening of the national regulatory authority and access to healthcare through the promotion of universal health coverage.
- Health Promotion: Supports people to make behavioural choices that promote healthier lives.

Thus the World Health Organization Country Cooperation Strategy for South Africa, supports the care environment and health promotion elements of patient centred care.

The South African strategic health plan is discussed in the next section.

3.6.2. South African Strategic Health Plan

The South African Strategic Health Plan (2014-2019) outlines the areas of focus to either be addressed or improved upon namely the prevention of illness, promotion of healthy lifestyles and to consistently improve the healthcare delivery system by focusing on access, equity, efficiency, quality and sustainability through its strategic goals (National Department of Health South Africa, 2014).

According to the South African Strategic Health Plan, the Department of Health intends to introduce National Health Insurance (NHI) to ensure that all South Africans have access to appropriate, efficient, affordable and quality healthcare, while also improving access to community based primary healthcare services at primary healthcare facilities and to implement an eHealth Strategy as part of the five year strategic goals (National Department of Health South Africa, 2014).

An initial analysis reveals that the South African strategic health plan does not make mention of the exact term “patient centred care”, but refers to the Integrated Management of Chronic Diseases Model (Shaidah Asmall & Mahomed, 2010) as a patient centred care model.

Further analysis shows that this directive does address the patient centred care elements as follows:

- Care Environment: The re-engineering of primary healthcare by supporting universal health coverage through NHI, improving healthcare planning by implementing norms and standards and improving human resources for healthcare.

- Information Technology: Developing efficient health management information systems.
- Health Promotion: Supporting the prevention and reduction of the burden of disease and health promotion.

Thus the South African strategic health plan supports the care environment, IT and health promotion elements of patient centred care.

The NHI is discussed in the next section.

3.6.3. National Health Insurance

National Health Insurance (NHI) was first proposed in 2011 when it was envisaged that NHI for South Africa would be implemented in phases over a period of 14 years (National Department of Health South Africa, 2011).

National Health Insurance (NHI) intends to provide universal health coverage and includes the financing mechanisms to ensure access to quality healthcare (World Health Organization, 2008). National Health Insurance (NHI) is believed to have the ability to meet the healthcare needs of South Africa as it is based on the principles of the primary healthcare approach which is core to the South African approach (Saloojee, 2011).

The NHI South Africa contains the objective to create a single fund whereby equity and social solidarity are achieved, as well as having information technology experts for health technology assessment (National Department of Health South Africa, 2015).

An initial analysis reveals that, the National Health Insurance white paper does not make mention of the exact term “patient centred care”. Further analysis shows that this directive does address the patient centred care elements as follows:

- Care Environment: Improve access to quality healthcare services and health systems performance by strengthening the public health sector.
- Information Technology: Health technology assessments to be implemented for the monitoring and evaluating of health technologies systems.

Thus the NHI supports the care environment and IT elements of patient centred care.

The strategic directive for community oriented primary care is discussed in the next section.

3.6.4 Community Oriented Primary Care - Ward Based Primary Health Care Outreach Teams: Implementation Toolkit

In South Africa ward-based community health workers have been introduced to improve access to healthcare services and health outcomes by providing generalist health services to communities (Nxumalo & Choonra, 2014). This initiative forms part of the primary healthcare outreach teams linked to a primary healthcare clinic (Shung-King, Orgill, & Slemming, 2014).

As outlined in the Ward Based PHC Outreach Teams: Implementation Toolkit (2011) the community ward based primary healthcare teams consist of:

- Professional Nurse: the team leader, responsible for the work of the primary healthcare outreach team, managing resources allocated to the team and to initiate and establish the community based outreach services with team members.
- Community Health Workers: a community health worker has many responsibilities of which include promoting health and illness prevention in communities, conducting structured household assessments to identify needs, identify and manage minor health problems and to provide psychosocial support to community members.
- Health Promoter: to provide technical support and assistance pertaining to health promotion activities at a community level based on local needs.
- Environmental Health Officer: an environmental health officer is to oversee waste water treatment, monitor air quality management, develop a community based accident prevention program, and monitor environmental health in public and private accommodation establishments.

The constitution of community ward based primary healthcare teams is depicted in Figure 3.1: Community Oriented Primary Care.

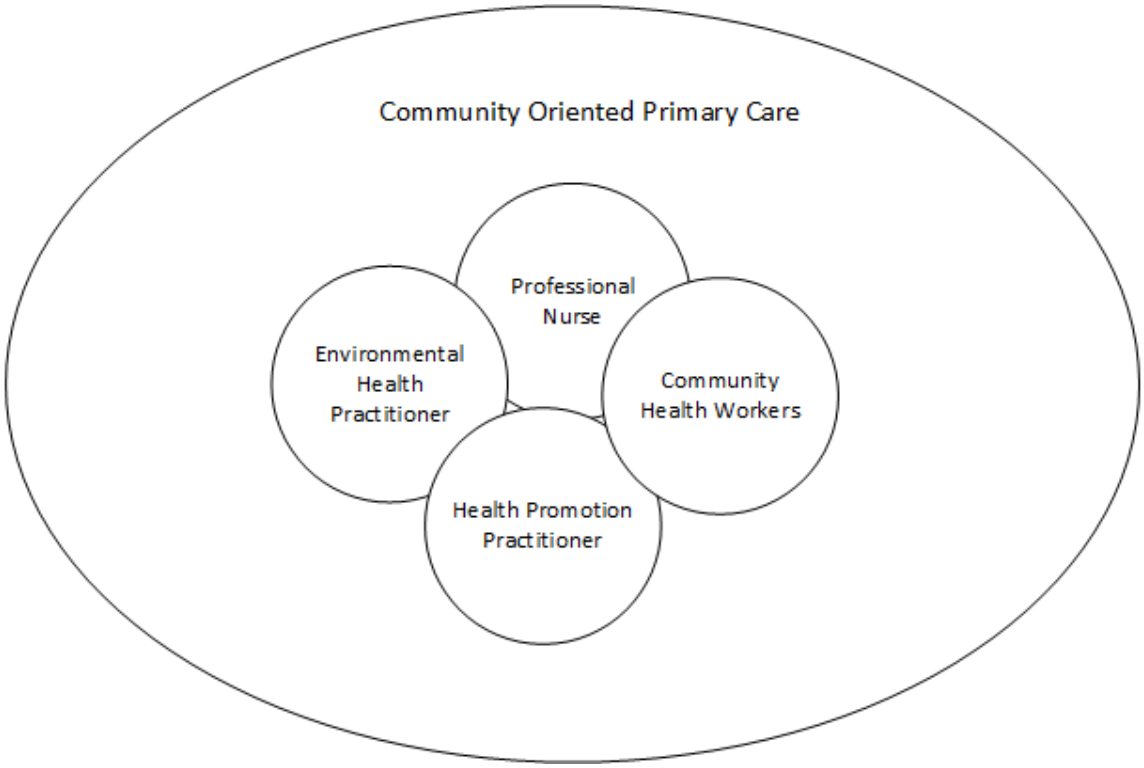


Figure 3.1: Community oriented primary care (Ward Based PHC Outreach Teams: Implementation Toolkit (2011))

As part of the Department of Health's strategic health plan released in 2014, the Department of Health states that it hopes to re-engineer primary healthcare by increasing the number of ward-based outreach teams (National Department of Health South Africa, 2014).

The ward-based community health worker outreach teams have been established to strengthen primary healthcare, but ultimately to improve access to healthcare by taking healthcare services out to the community and patients (Nxumalo & Choonra, 2014). Ward-based community health worker outreach teams have 9 core components integrated into the service of which providing healthcare information and education is important to make the services work (Ward Based PHC Outreach Teams: Implementation Toolkit, 2011):

1. Promote health (child, adolescent and women's health).
2. Prevent ill health.
3. Ante and postnatal community based support and interventions that reduce maternal mortality.

4. Provide information and education to communities and households on a range of health and related matters.
5. Offer psychosocial support.
6. Screen for early detection and intervention of health problems and illnesses.
7. Provide follow-up and support to persons with health problems including adherence to treatment.
8. Provide treatment for minor ailments.
9. Basic first aid and emergency interventions.

An initial analysis reveals that, the Community Oriented Primary Care – Ward Based PHC Outreach Teams: Implementation Toolkit does not make mention of the exact term “patient centred care”. Further analysis shows that this directive does address the patient centred care elements as follows:

- Care Environment: Improve access to healthcare services through ward-based community health worker outreach teams.
- Communication: Uses communication and interpersonal skills to initiate, develop and maintain a supportive, caring relationship with community members.
- Relationships: Develop and establish inter-sectoral relationships that promote health care.
- Health Promotion: Promotes health and preventative health measures by providing healthcare information and education to communities and households.

The Community Oriented Primary Care - Ward Based PHC Outreach Teams: Implementation Toolkit thus supports the care environment, communication, relationships and health promotion elements of patient centred care.

The eHealth Strategy: South Africa is discussed in the next section.

3.6.5 eHealth Strategy: South Africa

The adoption of Information and Communication Technologies (ICTs) is central to the achievement of a transformed healthcare system in South Africa (Ruxwana, Herselman, & Conradie, 2010). The WHO defines eHealth as:

> “The use of information and communication technologies (ICTs) for health. Examples include treating patients, conducting research, educating the health workforce, tracking diseases and monitoring public health.”
>
> (World Health Organization, 2015, "eHealth")

The eHealth strategy for South Africa was first introduced in 2012, when South Africa was at the stage of the migration of traditional district health information systems to electronic storage and reporting (National Department of Health South Africa, 2012). The eHealth strategy for South Africa is a strategy emphasising the leveraging of eHealth to support a broader transformation of healthcare (World Health Organization, 2012). The eHealth strategy includes ten strategic priorities (World Health Organization South Africa, 2012):

- Strategic Priority 1: Strategy and Leadership
- Strategic Priority 2: Stakeholder Engagement
- Strategic Priority 3: Standards and Interoperability
- Strategic Priority 4: Governance and Regulation
- Strategic Priority 5: Investment, affordability and Sustainability
- Strategic Priority 6: Benefits Realisation
- Strategic Priority 7: Capacity and Workforce
- Strategic Priority 8: eHealth Foundations
- Strategic Priority 9: Applications and Tools to support Healthcare Delivery
- Strategic Priority 10: Monitoring and Evaluation of the eHealth Strategy

The establishment of eHealth foundations is incorporated in the eighth strategic priority and the adoption of applications and tools to support healthcare delivery in the ninth.

To date South Africa has fallen behind on the schedule set out for the eHealth strategy. Only five of the ten priorities set out in the eHealth Strategy in 2012 have been reached, namely strategic priority 1, strategic priority 2, strategic priority 3, strategic priority 4 and 10 (Masilela, Foster, & Chetty, 2014).

eHealth can provide learning opportunities that are visual and interactive as well as help address literacy and health challenges but requires health investments for those with access to resources and those areas where access to resources is rare

(Kickbusch, 2001). eHealth technologies can be beneficial to the healthcare environment by providing access to healthcare services, increased delivery of care, provision of new healthcare services and ultimately provide not only ease of access but also exchange of information to remote areas of the population (Adenuga, Kekwaletswe, & Coleman, 2015). eHealth has the benefit of building communication between healthcare professionals and patients (National Department of Health South Africa, 2012).

eHealth technologies like telemedicine allow access to healthcare as the technologies provide care at a distance, and holds the tools to support delivery of healthcare in rural settings, ultimately bridging the gap between rural healthcare and specialist facilities should expert support be needed remotely (National Department of Health South Africa, 2012).

An initial analysis reveals that the eHealth Strategy for South Africa does not make mention of the exact term “patient centred care”, but refers to patient centred care by supporting the “patient centredness domain”, which is to provide care that is respectful of and responsive to patient preferences, needs and values, whilst ensuring that patient values guide clinical decisions (eHealth Strategy, p9).

Further analysis shows that this directive does address the patient centred care elements as follows:

- Care Environment: The eHealth strategy emphasises the broadening of access to healthcare through the use of Information and Communication Technologies (ICTs).
- Information Technology: The strategic priorities of the eHealth strategy, in particular numbers 8 and 9, support the adoption of applications and tools to support healthcare delivery.
- Communication: Supports healthcare professionals to communicate with patients.
- Health Promotion: Supports the promotion of disease prevention at household and community level.

Thus the eHealth Strategy: South Africa supports the care environment, IT, communication and health promotion elements of patient centred care.

The South African healthcare directives and their incorporation of the concept of patient centred care are subsequently summarised in Section 3.7.

3.7. South African Healthcare Directives and Patient Centred Care

The purpose of this section is to summarize how the South African strategic healthcare directives incorporate the patient centred care concept. In Section 3.6, the South African strategic healthcare directives were analysed to (1) identify any mention of the concept of patient centred care; and (2) their support for the elements of patient centred care.

The result of the initial analysis to determine mention of the term “patient centred care” is shown in Table 3.1.

SA Directive	**“Patient Centred Care” or equivalent**
World Health Organziation (WHO) Country Cooperation Strategy for South Africa (Refer to Section 3.6.1.)	
South African Strategic Health Plan (Refer to Section 3.6.2.)	✓
National Health Insurance (Refer to Section 3.6.3.)	
Community Oriented Primary Care (Refer to Section 3.6.4.)	
eHealth Strategy: South Africa (Refer to Section 3.6.5.)	✓

Table 3.1: South African strategic healthcare directives mentioning “patient centred care”

Table 3.1 shows that only the South African strategic health plan and the eHealth strategy mention the term “patient centred care” or an equivalent.

Table 3.2 provides an overview of the South African strategic healthcare directives in relation to the patient centred care elements as discussed in Sections 3.6.1. – 3.6.5.

SA Strategic Healthcare Directive	Patient Centred Care Elements				
	Healthcare Context		Patient Engagement		
	Care Environment	Information Technology (IT)	Communication	Relationships	Health Promotion
World Health Organziation (WHO) Country Cooperation Strategy for South Africa (Refer to Section 3.6.1.)	✓				✓
South African Strategic Health Plan (Refer to Section 3.6.2.)	✓	✓			✓
National Health Insurance (Refer to Section 3.6.3.)	✓	✓			
Community Oriented Primary Care (Refer to Section 3.6.4.)	✓		✓	✓	✓
eHealth Strategy: South Africa (Refer to Section 3.6.5.)	✓	✓	✓		✓

Table 3.2: South African strategic healthcare directives in support of patient centred care elements

Table 3.2 shows the prominence (or not) of the support for the meta-elements and elements of patient centred care, as emerging from the strategic directives for South African healthcare. It can be deduced that the South African strategic directives do support the patient centred care elements.

From the healthcare context meta-element perspective:

- All of the directives support the care environment element; and
- Three of the five directives support the IT element.

This result shows that improvement of the care environment and information technology forming part of the healthcare context, are foregrounded at a high or strategic level. The operationalisation of these strategic foci will facilitate the achievement of patient centred care.

From the patient engagement meta-element perspective:

- Two of the five directives support the communication element;
- One of the directives explicitly supports the relationships element; and
- Four of the five directives support the health promotion element.

This result shows that from a patient engagement perspective, health promotion is taken highly into consideration within the South African strategic healthcare directives. It acknowledges that health promotion is important in providing quality healthcare to South African patients. This aligns well with health promotion as an element of patient centred care.

3.8 Conclusion

The Chapter provided an overview of the South African healthcare system, highlighting the status quo, challenges in South African healthcare and any improvements or efforts made towards bettering the South African healthcare system. A selection of strategic healthcare directives was discussed and analysed to determine whether these directives incorporate the concept of patient centred care.

The analysis showed that South Africa does incorporate patient centred care in its strategic healthcare directives even if not explicitly, through the development and support of the elements (care environment, IT, communication, relationships and health promotion) of patient centred care. In particular, support for the care environment, IT and health promotion elements emerged strongly, with the least (explicit) support for the communication and relationships elements.

In Chapter 4, the focus of the dissertation shifts to social networking services, with particular emphasis on their relevance in the healthcare context.

CHAPTER 4: SOCIAL NETWORKING SERVICES AND HEALTHCARE

The previous chapter discussed the South African national healthcare system and a selection of strategic healthcare directives. In particular, it aimed to determine whether these directives incorporate the concept of patient centred care.

This chapter is aimed at exploring social networking services and their use in general, while also understanding their impact in the healthcare environment.

The topics discussed are outlined as:

Introduction

In this chapter social networking is explored in general to understand its use as well as to summarise social networking services by type. Thereafter, social networking services in healthcare are addressed, including social networking services applications in healthcare and the challenges of using social networking services in the healthcare context.

4.1 Social Networking Services Types

Social networking services (SNS) as previously defined in Chapter 1 can be understood as web-based services that allow individuals to: construct a public or semi-public profile within a bounded system; articulate a list of users with whom they share a connection; and view and traverse their list of connections and those made by others within the system; whereby the nature and nomenclature of these connections may vary from site to site (Boyd & Ellison, 2007).

Due to social networking services being made available across wide broadband connectivity with the help of personal computers (Parameswaran & Whinston, 2007), social networking services can further allow individuals or communities to gather and communicate, share information, ideas, personal messages, images and to collaborate with other users in real time via internet web based platforms (Ventola, 2014) .

Whereas links and information from the online world become outdated with all the new information coming in at a rapid pace, most social networking services offer free entry and free speech and expand organisational boundaries around communities sharing interests about a specific or common topic (Parameswaran & Whinston, 2007).

Table 4.1 lists and describes different types of social networking services including an example of each listed type.

SNS Type	Description	Example
Blog	An easy-to-publish website where bloggers post information and essays in sequential order (Giustini, Grajales, & Hooker, 2011). A blog can further be understood as an interactive website maintained by an individual, a group of individuals or an organisation posting on a regular basis on commentaries and events (Ventola, 2014).	Blogger (blogger.com)
Microblog	Allows subscribers to send short messages to other subscribers (Ventola, 2014).	Twitter (twitter.com)
Social Networks	Allows subscribers to send short messages to other subscribers , whereby individuals can create either a public or private profile limiting online profile visibility (Griffin & De Leastar, 2010), social links and additional services (Grajales, Sheps, Ho, Novak-Lauscher, & Eysenbach, 2014).	Facebook (facebook.com) MySpace (myspace.com)
Professional Networking	Focused on interactions and relationships relating to the organisation or professional career (Grajales et al., 2014).	LinkedIn (linkedin.com)
Thematic Networking	Social networking sites centered on a particular theme (Grajales et al., 2014) like that of enabling engagement between individuals whom share an interest about health and wellness issues (Eysenbach, Powell, Englesakis, Rizo, & Ster, 2004)	Innocentive (innocentive.com)
Wiki	Communal websites that allow content to be quickly and easily edited, supporting collaboration and sharing of information (Giustini et al., 2011)	Wikipedia (wikipedia.org)
Media Sharing	Allows users access to social media tools optimised for viewing, sharing and embedding digital media content (Grajales et al., 2014). It further allows individuals to upload and create galleries of photos and videos with public or private access (Grajales et al., 2014).	YouTube (youtube.com)

SNS Type	Description	Example
Collaborative Filtering	A website where information is filtered or collected according to patterns from multiple agents, view points and data sources (Grajales et al., 2014).	Delicious (delicious.com)
Mashup	A website that combines data and functionality from two or more services to create a new, value-added, service (Grajales et al., 2014)	Viral Video Chart (unruly.co/viralvideochart)
Virtual World	Multi-User Virtual Environments (MUVEs) that allow users to interact through a virtual representation of themselves in a three dimensional environment (Grajales et al., 2014).	Second Life (secondlife.com)

Table 4. 1: Social networking services types

Table 4.1 shows that there is a wide variety of social networking services available and each type of social networking service has its own purpose. Social networking services provide a variety of features serving different purposes for the individual user and can be grouped by purpose serving functions (Ventola, 2014) as seen in Table 4.1 above.

4.2 Social Networking Services in Healthcare

The term e-patient has progressed and can be understood as patients who are equipped, enabled, empowered and engaged when using the internet to make healthcare decisions (Choi, 2015). Meehan (2014) recognises the e-patient as:

- Equipped – having the tools, (a computer, smartphone) to find information online and manage their condition with what they learn.
- Enabled – having the means to manage their health care; where they receive it, what type of care they get.
- Empowered – this new patient feels a sense of knowledge on medical topics, making them better able to communicate with health care professionals about their symptoms and treatment methods they would prefer.

- Engaged – e-patients are equipped with information they receive online, with the latest in technologies, practices and medications, so they can be better engaged in their personal encounters with doctors.
- Equals – the feeling of being equal to a physician in knowledge and competence, which poses a problem in some patient-doctor relationships.
- Emancipated – patients feel freed from the traditional practice of medicine because of the information they have available to them online. Perhaps they don't need to see a doctor or can seek other alternatives to their care.

E-patients have found the medical advice or healthcare information received online positive and helpful (Fox, 2008). By understanding patient engagement through the e-patient and the use of social networking services, this engagement can be used as motivation in understanding the role social networking services can play in healthcare (Bornkessel, Furberg, & Lefebvre, 2014).

Moorhead, Hazlett, Harrison, Carroll, Irwin & Hoving (2013) acknowledge the following benefits of social networking services for healthcare use:

- Increased interactions with others;
- More available, shared and tailored information;
- Increased accessibility and widening access to health information;
- Peer/social/emotional support;
- Public health surveillance; and
- Potential to influence health policy.

The use of social networking services in the healthcare environment can improve healthcare outcomes by focusing on professional networking, professional education, organisational promotion, patient care, patient education and public health programs (Ventola, 2014). The healthcare environment is realising the need for healthcare professionals to understand social networking services in developing strategies for patient engagement (Moorhead et al., 2013).

In realizing the growth and use of social networking services in the healthcare environment, Bornkessel, Furberg and Lefebvre (2014) have developed a Networked Model for Patient Centred Care through digital engagement which demonstrates that the roles played by healthcare professionals' use of social media (provider social media engagement) needs to intersect with that of the patients (consumer social media engagement) use (Bornkessel et al., 2014). The model is presented in Figure 4.1.

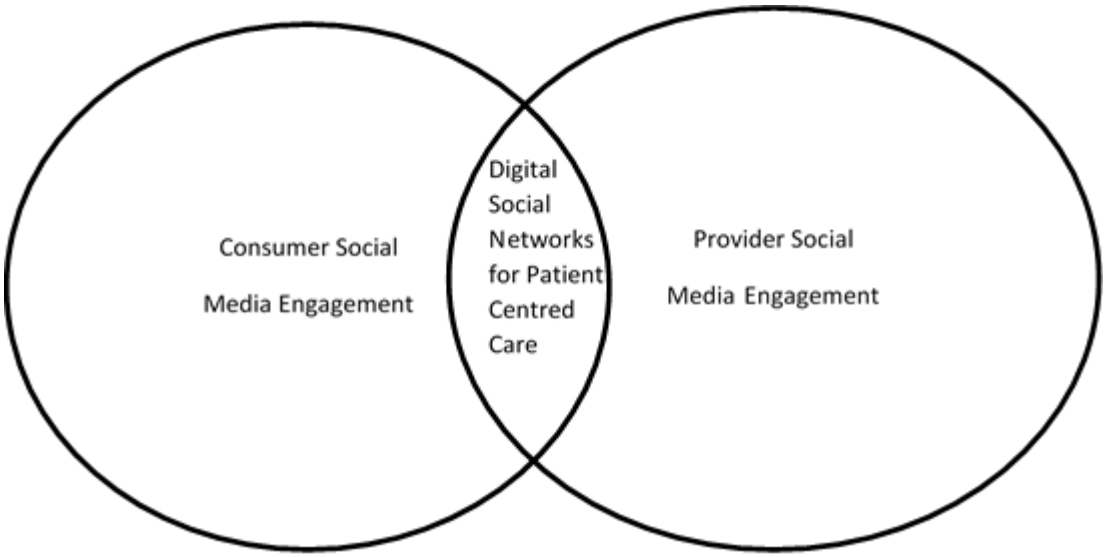


Figure 4.1: Networked model for patient centred care (Bornkessel et al., 2014)

Figure 4.1 seeks to help healthcare professionals to find ways to bridge what is being done in the healthcare environment with that of patient activities in the online environment. This includes to observe and listen to consumers active on digital social networks; consider digital forms of information therapy; seek opportunities to collaborate around and co-create opportunities for networked care; and brush up on effective health communication techniques and strategies to help facilitate and improve social health experiences (Bornkessel et al., 2014).

Another model supporting the digital engagement of care is the Tyze Personal Networks model represented in Figure 4.2.

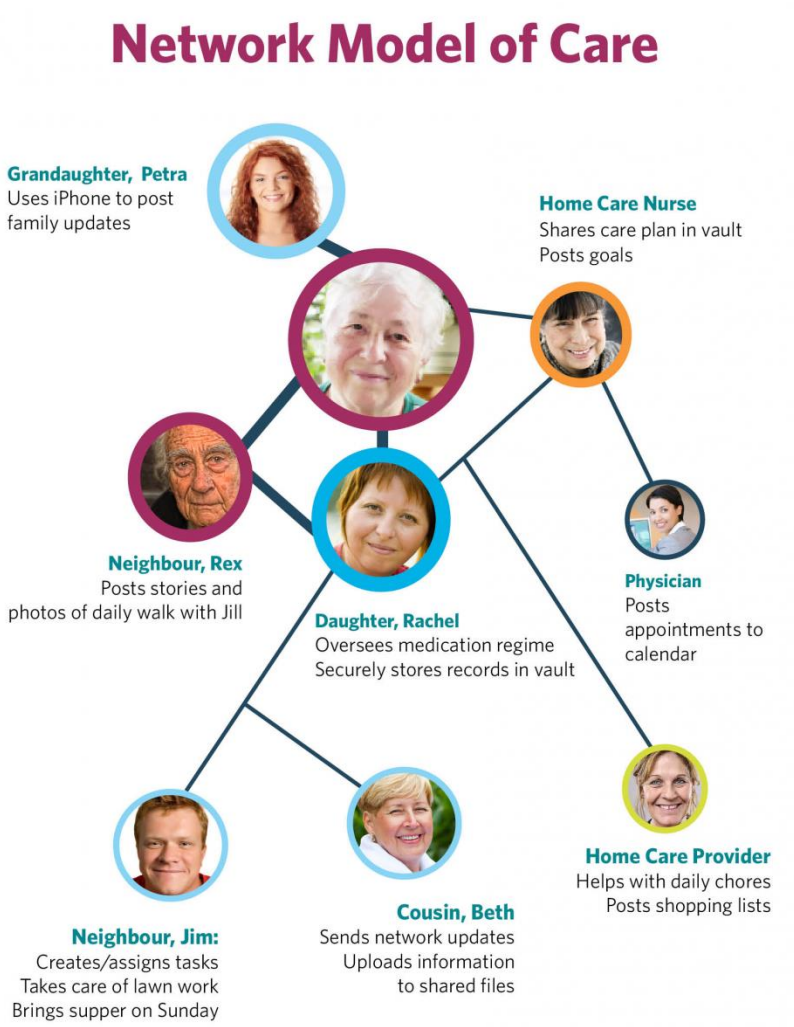


Figure 4.2: Tyze personal network model (Cammack & Byrne, 2012)

The Tyze Personal Network model, contributes to a shift in health and social care by using technology to engage, connect and inform the individual and the individual's personal network members and is based upon a networked model of care which includes (Cammack & Byrne, 2012):

- A focus on strengthening relationships: Tyze personal networks are small, personal networks of people invested in caring relationships with one another. The interconnections, shared experiences, and motivations amongst network members are situated at the core of a network model of care.
- Interdependence: This is the valued goal versus independence.
- Asset-Based: Families and patients/clients are empowered and engaged through an assumption of competence. For instance, information is shared

knowing that patients/clients and family members are able to advocate and use the information to make the best decisions for themselves.

- Reciprocity and celebration: These elements are central to network sustainability. Features such as photos, stories, and profiles all create opportunities to highlight contributions.
- Purposeful: Each network has a shared purpose – this inspires action and participation.
- Hospitable: The networks each have a coordinator or host who extends invitations, welcomes members and their contributions, and generates activity in a network.
- Focus on contribution by all: Tyze personal networks make it easy for everyone to pitch in because they are “in the know” about specific needs and can contribute in a way that is convenient or meaningful for them.
- Bridge to the formal system: Access to information and expertise assists personal networks to provide the best support possible. Paid professionals can easily participate for short periods of time, for example in acute episodes, and then be removed from the network.

The networked models of care discussed above show that the digital environment can most definitely be infused with the care environment, with the help of applications, services and tools such as social networking services. The next section will explore social networking services applications in healthcare.

4.3 Social Networking Services: Applications in Healthcare

In this section, social networking services applications in healthcare will be discussed while also including examples of each type found in the healthcare environment. The discussion will be in the form of Table 4.2 below.

SNS Type	Application	Healthcare Example
Blog	A blog featuring cases of wide medical specialties like allergy and immunology, cardiology, pulmonology, gastroenterology, nephrology, endocrinology, hematology ,rheumatology, infectious diseases, neurology, geriatrics, pain management (Dimov, 2015) and includes admission note templates, procedure guides and related material (Grajales et al., 2014).	Clinical Cases Blog (clinicalcases.org)

SNS Type	Application	Healthcare Example
	Report on the latest medical technology news, interview leaders in the field, and file dispatches from medical events from around the world (MedGadget, 2015).	MedGadget (medgadget.com)
	A blog whereby patients are able to share experiences like that of receiving a kidney transplant leading to saving a family member's life or sharing an experience of having Colorectal Cancer (Mayo Clinic, 2015).	Sharing Mayo Clinic (sharing.mayoclinic.org)
Microblog	The first global healthcare chat sharing a weekly chat on Twitter held every Sunday night at 8pm Central Time. It was established in January 2009 as a way to bring individuals together to discuss health care and communications and social media – including doctors, patients, lawyers, communicators, for-profits, non-profits, hospitals, health systems, insurers, and many, many more (Lewis, 2015).	Health Care Social Media (healthsocmed.com) (twitter.com/HealthSocMed)
	A communication platform designed to improve workflow productivity within and between healthcare environments and unifies professionals within and between organisations into a collective communications environment that will ultimately lead to better patient care (Mobile Health One, 2015).	MDChat (mdchat.com) (twitter.com/MD_chat)
	Explores Social Media in Pharma, Medicine, and Healthcare (Gwee, 2015).	Med2.0 (med20.com) (twitter.com/Med20)
	Patients can find tips and tricks to living a happy and healthy lifestyle (Aurora Health Care, 2015)	Aurora Health Care (aurorahealthcare.org) (twitter.com/Aurora_Health)
Social Networking	Provide informational health and wellness tips (Health Digezt, 2015).	Health Digezt (healthdigezt.com/)
	Where information regarding Veteran health and other health issues can be found (Veteran Health Administration, 2015)	Veterans Health Administration (facebook.com/VeteransHealth)

SNS Type	Application	Healthcare Example
Professional Networking	Allows physicians to network with other peers (Doximity, 2015).	Doximity (doximity.com)
	Social networking service for medical students, residents and doctors (Karuturi, 2015).	Drs Hangout (doctorshangout.com)
Thematic Networking	An online research platform whereby patients share experiences on patient-reported outcomes (Patients Like Me, 2005)	PatientsLikeMe (patientslikeme.com)
	A health research project that brings patients and researchers together to find cures for chronic conditions (Reda & Carmichael, 2012).	CureTogether (curetogether.com)
Wiki	Allows only pharmacists to add or edit drug information (Perpetual-Peer-Review, 2015).	RxWiki (rxwiki.com)
Media Sharing	Free video CME, medical news, and physician education. Featuring insights and opinions from experts in over 50 specialties, as well as community and lifestyle features that help doctors stay on top of the latest news, ideas, and information (Best & Banks, 2014).	The Doctors Channel (thedoctorschannel.com)
	Videos about patient stories and the Wellmont Medical Associates Physicians and Providers can be found (Wellmont Health System, 2007).	Wellmont Health System (wellmont.org)
	A web-based platform that allows physicians to share medical images and videos and build clinical cases online. It is useful for creating a clinical social network for case collaboration, knowledge exchange or second opinion (Best Doctors, 2011).	Medting (medting.com)
Collaborative Filtering	Service that enables users to collect and discover web content through this website (Delicious Science, 2015)	Delicious (delicious.com)
Mashups	Online informal sources for disease outbreak monitoring and real-time surveillance of emerging public health threats (Bostons Children's Hospital, 2006).	HealthMap (healthmap.org)
	Sickweather scans social networks for indicators of illness, allowing you to check for the chance of sickness as easily as you can check for the chance of rain (Dodge et al., 2011).	Sickweather (sickweather.com)

SNS Type	Application	Healthcare Example
Virtual World	A 3D, immersive, computer application for practicing patient care and clinical management with interactive devices affecting the health of virtual patients (Innovation in Learning, 2014).	CliniSpace (virtualsimcenter.clinispace.com)
	The aim of this virtual world is to educate or offer information to patients or increase awareness about health issues (Suomi, Mäntymäki, & Söderlund, 2014).	Second Life (secondlife.com)

Table 4. 2: Social networking services applications in healthcare

Table 4.2 shows the social networking services applications in healthcare including an example of each social networking service type found in the healthcare environment. Table 4.2 further shows that there is progress in the use of social networking services in the healthcare environment, based on the number and variety of applications available for healthcare. It can be seen that there are social networking services applications available in healthcare for both patients and healthcare providers.

4.4 Challenges of Social Networking Services in Healthcare

Using social networking services in healthcare has various challenges that could lead to negative outcomes, for example healthcare organisations being exposed to threats upon the safety and security of patient information and violation of healthcare provider-patient relationships.

In this section, the challenges of using social networking services within the healthcare context are presented in Table 4.3.

Challenge	Description	Source
Privacy	Personally identifiable patient information must be secure and transmitted only to permissible parties.	(Cain, 2011) (Antheunis, Tates, & Nieboer, 2013) (Alsughayr, 2015)
	Personal healthcare provider information may be breached, i.e.patients may have	(Moorhead et al., 2013) (Denecke et al., 2015)

Challenge	Description	Source
	unrestricted access to healthcare provider's personal information as it is provided online.	
	Privacy remains a primary concern for social networking services use in healthcare.	(Denecke et al., 2015)
	Social networking services usually have settings whereby individuals can share information with certain individuals or withhold such content from other individuals.	(Bernhardt, Alber, & Gold, 2014)
Lethal Outcome	Patients may use information found on social media as a way to diagnose themselves without consulting with a healthcare professional.	(Moorhead et al., 2013)
Time Consuming	The perceived extra burden of time and resources placed on physicians.	(Antheunis et al., 2013)
	Information/advice may not be well-organised or resourceful.	(Antheunis et al., 2013)
Patient Conduct	Conversations and communication that may be innocuous in traditionally private settings can be judged differently when made available to the online public. Behavior like misrepresenting or misinterpreting healthcare provider online.	(Cain, 2011)
Professional Conduct	Using social media as a healthcare professional may affect the healthcare professional's credentials and licensure which can be affected by unprofessional behavior like the inappropriate use of social networking services, sexual misconduct, privacy breaches, abusing prescription privileges and misrepresenting credentials.	(Ventola, 2014) (Antheunis et al., 2013)
	Healthcare providers should therefore be familiar with any medical boards issue with regards to the use of social networking services to avoid any violations that may put the healthcare professional's license at risk	(Farnan et al., 2013) (Grobler et al., 2016)
	Conversations and communication that may be innocuous in traditionally private settings	(Cain, 2011)

Challenge	Description	Source
	can be judged differently when made available to the online public	
	Separate personal and professional content	(Alsughayr, 2015)
	Maintaining appropriate online boundaries	(Grobler et al., 2016)
	Healthcare providers may violate the patient-healthcare provider boundary even if the patient initiated the online contact being made	(Farnan et al., 2013)
	Unprofessional content posted involves posts like that of information about an individual's personality, values and priorities which is the first impression other social networking individuals' see; can reflect negatively	(Bernhardt et al., 2014)
	Unprofessional content can also include privacy violations, use of profanity, discriminatory language, Images of sexual suggestiveness, intoxication and negative comments about other individuals., this content can have a negative effect if organisation employees should use it to make any decision regarding admission or employment	(Peck, 2014)
Information Quality	Information available or found on social networking services is often unknown or limited and may be unreferenced, incomplete or informal leaving social networking individuals vulnerable to any hidden costs or unconcealed conflict of interest that may be incorrectly interpreted.	(Antheunis et al., 2013) (Moorhead et al., 2013) (Pirraglia & Kravitz, 2013)
	Social media tools contain informal information collecting and sharing of varying quality and consistency.	(Moorhead et al., 2013)
	The interactive nature of social media, which allows lay-users to upload information regardless of quality.	(Moorhead et al., 2013)
	Healthcare providers should use clinical judgment and consider the source of information when interacting.	(Farnan et al., 2013)

Challenge	Description	Source
	The World Health Organization (WHO) is currently in the process of establishing a new domain suffix to be used solely for validated health information.	(Grajales et al., 2014)

Table 4. 3: Challenges of social networking services in healthcare

Table 4.3 provides 6 factors (privacy, lethal outcome, time consuming, patient conduct, professional conduct, information quality) affecting the use of social networking services within the healthcare context in relation to patient and healthcare provider's use of social networking services for healthcare.

4.5 Conclusion

The chapter explored the general use of social networking services and identified various social networking services types. Additionally, the relevance and application of social networking services and its types in the healthcare environment were explored. The chapter concluded with a table presenting the challenges of social networking services in healthcare.

In Chapter 5, the focus of the dissertation shifts to social networking services for patient centred care in the South African healthcare context.

CHAPTER 5: SOCIAL NETWORKING SERVICES FOR PATIENT CENTRED CARE IN SOUTH AFRICA

The previous chapter discussed social networking services, the general use of social networking services as well as the relevance and application of social networking services in healthcare. The challenges of using social networking services in the healthcare context were summarised.

In this chapter, the factors affecting the use of social networking services for patient centred care in South Africa are identified and analysed using SWOT and TOWS matrices.

The topics discussed are outlined as:

Introduction

In Chapter 2 the patient centred care concept was explored in order to define patient centred care in terms of this study and ultimately identifying the patient centred care elements. In Chapter 3 the focus shifted to understanding and exploring South African healthcare and how South Africa incorporates patient centred care in its strategic healthcare directives. In Chapter 4 social networking services, its relevance and application both in and out of the healthcare context were investigated.

The SWOT analysis and TOWS matrix are introduced in this chapter as tools to analyse the prospect of social networking services for patient centred care in South African healthcare.

The overall approach undertaken by the study as described above is summarised in Figure 5.1.

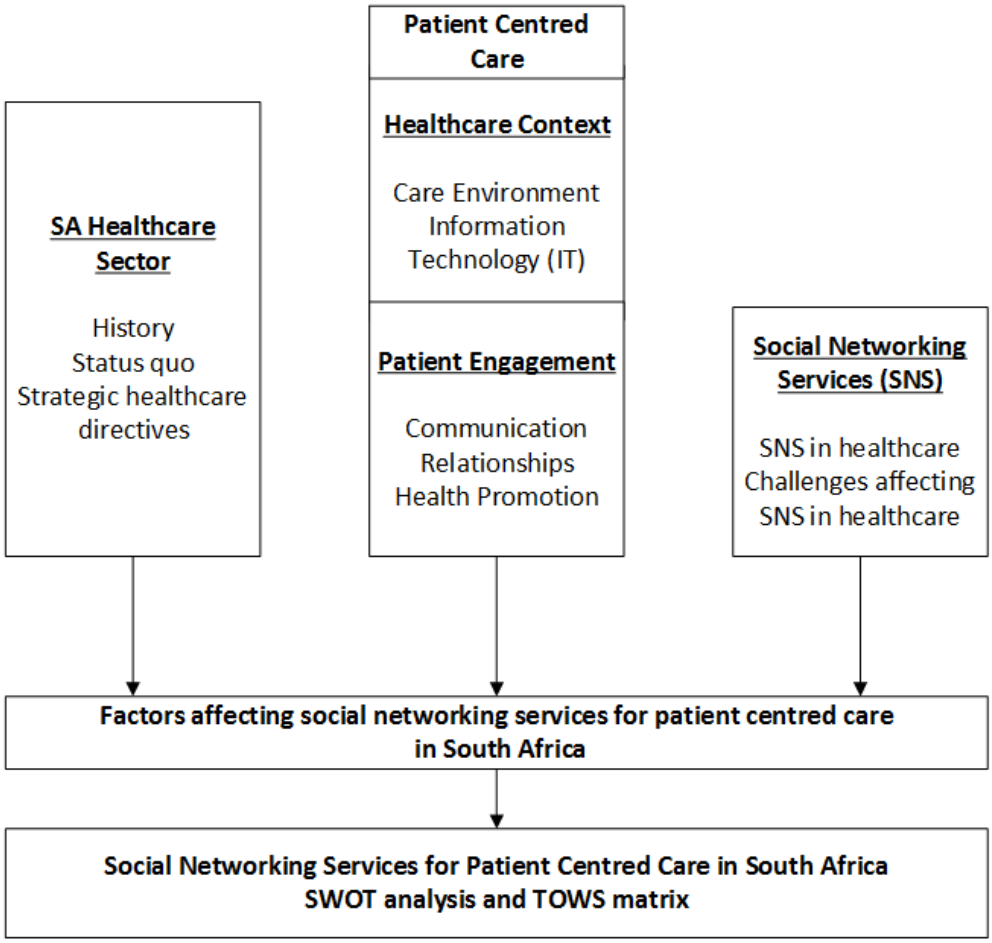


Figure 5.1: Overall study approach

On the left of the figure, the South African healthcare sector, including its strategic healthcare directives as discussed in Chapter 3, are represented. The patient centred care concept is represented in the middle, while also highlighting the patient centred care elements identified in Chapter 2. Social networking services is represented on the right of the figure, highlighting the application of social networking services in healthcare as well as its challenges, as discussed in Chapter 4.

Three themes, namely patient centred care, the South African healthcare sector and social networking services, inform the factors affecting social networking services for patient centred care in South Africa as shown in Figure 5.1. The factors are subsequently used to compile a SWOT analysis and TOWS matrix analysing social networking services for patient centred care in South African healthcare.

Section 5.1 introduces the SWOT analysis approach and explains the constitution of a TOWS matrix.

5.1 SWOT Analysis and TOWS Matrix Theory

Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis can be understood as an examination of an organisation's internal strengths and weaknesses, its opportunities for growth and the threats external to the environment in which the organisation operates (Harrison, 2010). The SWOT analysis theory is a useful technique to use when an organisation is deciding on the best way to achieve future growth (United States Department of Agriculture, 2012). The SWOT analysis process involves taking information from an environmental analysis and separating it into internal (strengths and weaknesses) and external issues (opportunities and threats) (Ommani, 2011).

A SWOT analysis in healthcare by Helms, Moore, & Ahmadi (2008) resulted in the following matrix for the implementation and proliferation of Information Technology in healthcare in the US:

Strengths	Weaknesses
• Improved Patient Safety • Greater Efficiency of Operation • Current Investment in IT	• Lack of System Integration • User Resistance • Slow IT Adoption
Opportunities	**Threats**
• The Internet • Favourable External Environment • Industry Standards	• Legal Compliance • Loss of Patient Trust • Costs

Figure 5.2: SWOT analysis in healthcare example

The Threats, Opportunities, Weaknesses and Strengths (TOWS) matrix can be constituted after a SWOT analysis to develop strategies based on the following TOWS matrix strategic groups (Ravanavar & Charantimath, 2012):

- Strength – Opportunities (SO): using internal strengths to take advantage of external opportunities.
- Strengths – Threats (ST): utilising strengths to avoid or reduce effects of external threats.
- Weaknesses – Opportunities (WO): reducing internal weaknesses by taking advantage of external opportunities.
- Weaknesses – Threats (WT): tactics aimed at reducing internal weaknesses and external threats.

To illustrate the TOWS matrix above an example from the strength - opportunities strategic group is given:

- Based on the example from Helms, Moore & Ahmadi (2008) (refer to Figure 5.2), the strength of increased current investment in IT by healthcare organisations, can be used to optimise the opportunity provided through the Internet to communicate with patients, patient groups etc.

The next section will serve to identify the factors affecting social networking services for patient centred care in South Africa.

5.2 Factors affecting Social Networking Services for Patient Centred Care in South Africa

Patient centred care, the South African healthcare sector and social networking services, were the primary foci of investigation throughout this dissertation. This paved the way to highlight aspects of patient centred care, the South African healthcare

sector and social networking services that serve to promote or affect negatively the use of social networking services for patient centred care in South Africa.

In this section, the factors that influence social networking services for patient centred care in South Africa, are identified. The discourse presented in the chapters of this dissertation is used to identify these factors.

Three themes were identified from the dissertation. The themes with the relevant factors and cross-references are provided in Table 5.1.

Theme	**Factor**	**Cross-Reference**
Patient Centred Care	Patient Involvement	Chapter 2, Section 2.1
	Information Technology	Chapter 2, Section 2.5.2
	Communication	Chapter 2, Section 1.1.2
	Relationships	Chapter 2, Section 2.5.6
	Health Promotion	Chapter 2, Section 2.5.6
	Patient's understanding of patient centred care	Chapter 2, Section 2.1
	No clear definition or method of measurement for patient centred care	Chapter 2, Section 2.1
South African Healthcare Sector	Ward based community healthcare workers	Chapter 3, Section 3.6.4
	Access to healthcare	Chapter 3, Sections 3.1 & 3.6
	Adoption of Information Technology (IT)	Chapter 3, Section 3.6.5
	Inadequate human resources	Chapter 3, Section 3.5
	eHealth strategy	Chapter 3, Section 3.6.2
	Strategic directives for healthcare in South Africa	Chapter 3, Sections 3.6.1 – 3.6.5
Social Networking	Patient experience of social networking services	Chapter 4, Section 4.2 Chapter 1, Section 1.1.2 – 1.1.3

Theme	Factor	Cross-Reference
Services in Healthcare	Privacy controls	Chapter 4, Section 4.4
	Access to technology	Chapter 3, Section 3.6.5
	Patient Privacy	Chapter 4, Section 4.4
	Healthcare Provider's Privacy	Chapter 4, Section 4.4
	Professional Conduct	Chapter 4, Section 4.4
	Patient Conduct	Chapter 4, Section 4.4
	Time Consuming	Chapter 4, Section 4.4
	Patients' daily use of social networking services	Chapter 1, Section 1.1.2
	Social networking services types	Chapter 4, Section 4.1
	Social networking services applications in healthcare	Chapter 4, Section 4.3
	Information availability	Chapter 4, Section 4.4
	Misuse of information	Chapter 4, Section 4.4
	Disbarment	Chapter 4, Section 4.4
	Information quality	Chapter 4, Section 4.4

Table 5.1: Theme Cross-References

The cross-references provide examples of where in the dissertation the factors emerged, but do not represent an exhaustive list of the occurrence of a factor in the dissertation.

The next section presents a SWOT analysis of the factors identified and listed in Table 5.1.

5.3. SWOT: Social Networking Services for Patient Centred Care in South Africa

The factors listed in Table 5.1 are subsequently each discussed in the form of a SWOT analysis in Section 5.3.1 (patient centred care), Section 5.3.2 (South African healthcare sector) and Section 5.3.3 (social networking services). Each theme is

analysed separately before presenting a collated view of the SWOT analysis in Section 5.3.4.

Each bullet in the analysis represents one factor, which is also highlighted in the narrative using bold text.

5.3.1 SWOT: Patient Centred Care

Strengths:

- The proviso of **patient involvement** allows for the patient to be actively involved in decisions relating to the care that the patient receives (Section 2.1).
- **Communication** between the patient and healthcare provider to discuss all aspects of care pertaining to the patient (Section 1.1.2).
- **Relationships** between patients, healthcare providers and patient families as well as inter-professional relationships (Section 2.5.6).
- **Health Promotion** whereby the patient is educated to promote healthier lifestyles in order for the patient to lead a healthier life (Section 2.5.6).

Opportunities:

- In order to realise the patient centred care concept in practice, **Information Technology,** through which any health related information is communicated, is encouraged (Section 2.5.2).

Weaknesses:

A **patient's understanding of patient centred care**, for example an illiterate patient may be at a disadvantage in understanding what it means to be at the centre of care and participating in the decision making process (Section 2.1)

Threats:

Although patient centred care has the benefit of the patient being included throughout the decision making process, there is still **no clear definition and method of measurement of patient centred care** (Section 2.1).

5.3.2 SWOT: South African Healthcare Sector

Strengths:

Ward based community healthcare workers have been introduced to improve access to healthcare services (Section 3.6.4).

Weaknesses:

- Inequalities with regards to **access to healthcare** remain a concern in South African healthcare (Sections 3.1 and 3.6).
- The **adoption of Information Technology** in healthcare has been slow in South Africa (Section 3.6.5).
- **Inadequate human resources** for healthcare is a predominant challenge (Section 3.5).

Opportunities:

- The South African **eHealth strategy** enables opportunities to support broader transformation in healthcare (Section 3.6.2).

Threats:

- Only two of the (selected) **strategic directives for healthcare in South Africa** give explicit prominence to the concept of patient centred care while the others incorporate it tacitly through the development and support of the elements of patient centred care. (Sections 3.6.1 – 3.6.5). While the eHealth strategy emphasises the use of ICTs to broaden access to healthcare, this “broad statement” is not qualified specifically to the use of social networking services (Section 3.6.5). The strategic healthcare directives thus do not uniformly incorporate and foreground social networking services for patient centred care in South Africa.

5.3.3 SWOT: Social Networking Services in Healthcare

Strengths:

- **Patient experience of social networking services in healthcare** is evident in positive feedback about online advice (Section 4.2 and Sections 1.1.2 – 1.1.3).
- Social networking provides **privacy controls** whereby individuals control what information or content can be shared publicly and which to remain private (Section 4.5).

Weaknesses:

- The digital divide does impact on the ability **to access technology** infrastructure (rural vs urban). Financial viability of **access to technology** in resource constrained settings further compounds the situation (Section 3.6.5).
- Breach of **patients' privacy** may expose healthcare providers and healthcare organisations to liability in accordance with relevant privacy laws (Section 4.5). Privacy remains a primary concern in the use of SNS for healthcare (Section 4.5).
- Patients may have access to healthcare provider personal information made available online (Section 4.5), leading to breach of **healthcare provider's privacy**.
- **Professional conduct** is important in the public space represented by social networking services. Unprofessional content postings or conduct (e.g. using profanity and discriminatory language) can reflect negatively on healthcare providers (Section 4.5).
- **Patient conduct** like misrepresenting a healthcare provider or healthcare organisation, this can have a negative effect on the involved parties (Section 4.5).
- Healthcare providers may feel that using social networking services can be **time consuming** and may feel that social networking services will impact face-to-face time with patients (Section 4.5).

Opportunities:

- There is proliferating **use of social networking services in daily life**, also in the healthcare context (Section 1.1.2).
- There are various **social networking services types** that can be applied according to its relevance in healthcare (Section 4.1).

- There are various existing **social networking services applications in healthcare** (Section 4.3).
- Social networking supports **information availability,** as information is made freely available on social networking services platforms (Section 4.5).

Threats:

- The threat of misdiagnosis or patients performing incorrect self-diagnosis based on information received on social networking platforms. Should this **misuse of information** occur it can be lethal for the patient (Section 4.5).
- The use of discriminatory language and privacy or confidentiality violations (for example) could have serious implications and lead to **disbarment** should the terms of the Health Professions Council of South Africa act be violated (Section 4.5).
- The source of information collected and shared on social media is often unknown or limited and information may be unreferenced, incomplete or informal, impacting on **information quality**. Such information could have serious implications should it be used (Section 4.5).

Sections 5.3.1 – 5.3.3 analysed factors that promote or negatively affect the use of social networking services for patient centred care in South Africa. The next section provides a collated view of the SWOT analyses presented in Sections 5.3.1 – 5.3.3.

5.3.4 SWOT: Social Networking Services for Patient Centred Care in South Africa

Figure 5.3 represents the factors that were discussed in Sections 5.3.1 – 5.3.3 using the following colour coding to contextualise the factors:

- **Patient Centred Care**
- **South African Healthcare Sector**
- **Social Networking Services**

STRENGTHS	WEAKNESSES
• Patient involvement • Communication • Relationships • Health promotion	• Patient's understanding of patient centred care
• Ward based community healthcare workers	• Access to healthcare • Adoption of IT • Inadequate human resources
• Patient experience of social networking services in healthcare • Patients' daily use of social networking services • Privacy controls	• Access to technology • Patients' privacy • Healthcare provider's privacy • Professional conduct • Patient conduct • Time consuming
OPPORTUNITIES	**THREATS**
• Information Technology (IT)	• No clear definition and method of measurement for patient centred care
• eHealth strategy	• Strategic directives for healthcare in South Africa
• Social networking services types • Social networking services application in healthcare • Information availability	• Misuse of information • Disbarment • Information quality

Figure 5.3: Diagrammatic SWOT analysis

This diagrammatic SWOT representation will form the basis to conduct a TOWS analysis in Sections 5.4.1 – 5.4.4.

5.4 TOWS: Social Networking Services for Patient Centred Care in South Africa

Sections 5.4.1 – 5.4.4 discuss the TOWS matrix strategic groups identified in Section 5.1 (SO, WO, ST, WT), based on the collated SWOT presented in Figure 5.3. In sections 5.4.1 – 5.4.3, the discussion of the TOWS matrix strategic groups is simplified by presenting a selection of strengths, weaknesses, opportunities or threats (as relevant) in a matched sub-group (for example SO strategic group 1, SO strategic group 2 etc.) which thematically allows for grouped discussion. The sub-groups were selected on the basis of relevance of the listed factors (strengths, weaknesses, opportunities or threats) in terms of their subsequent discussion.

5.4.1 Strengths versus Opportunities (SO) matrix

This section discusses how the identified strengths can be used to take advantage of the opportunities presented. The strengths and opportunities are drawn from Figure 5.3 and presented diagrammatically as matched items for the purpose of showing the basis of the discussion to follow.

STRENGTHS	**OPPORTUNITIES**
Ward-based community healthcare workers	Social networking services types Social networking services applications in healthcare

Figure 5.4: SO strategic group 1

The presence of **ward-based community healthcare workers** to improve access to healthcare services, can be used to take advantage of the opportunities presented like the various **social networking services types** and the existing **social networking services applications in healthcare. Social networking services types and social networking services applications in healthcare** can provide ward-based community healthcare workers with the healthcare information they need to diagnose or treat a patient under their care.

STRENGTHS	**OPPORTUNITIES**
Patient experience of social networking services in healthcare	Social networking services types Social networking services applications in healthcare

Figure 5.5: SO strategic group 2

Patient experience of social networking services in and out of healthcare, can be used to take advantage of the various **social networking types** and existing **social networking services available in healthcare**. The fact that patients' experience of social networking services has been positive, creates the prospect of extending the application of social networking services to the healthcare context with a view to supporting the patient centred care approach.

STRENGTHS	OPPORTUNITIES
Patients' daily use of social networking services	Information availability Social networking services types Social networking services applications in healthcare

Figure 5.6: SO strategic group 3

Patients' daily use of social networking services can be used to harness the opportunity of **information availability** in social networking services to achieve the empowerment of patients, which is required in the patient centred care approach. Patients can use **social networking services** to take advantage of healthcare information made available to them via online **social networking services for healthcare purposes.**

STRENGTHS	OPPORTUNITIES
Ward-based community healthcare workers Patient involvement	Social networking services types Social networking services applications in healthcare

Figure 5.6: SO strategic group 4

The presence of **ward-based community healthcare workers** can create capacity to **use social networking services and social networking services applications in healthcare**. Social networking services can provide **ward-based community healthcare workers** with increased information, which they may find useful when interacting with patients. The need for **patient involvement** in shared decision-making about matters pertaining to their care and the availability of **ward-based community healthcare workers** who may be more accessible, can motivate patients to make use of social networking services, for example when a patient needs advice on a specific health related issue.

STRENGTHS	OPPORTUNITIES
Ward-based community healthcare workers Communication Relationships	Social networking services types Social networking services applications in healthcare

Figure 5.7: SO strategic group 5

The various **social networking services types** and **applications in healthcare** will enable **ward-based community healthcare workers** to strengthen **relationships** with patients through more regular **communication**, even when not in face-to-face consultation with patients. **Communication** and **relationships** are core requirements of patient centred care.

STRENGTHS	OPPORTUNITIES
Privacy controls	Social networking services types Social networking services applications in healthcare

Figure 5.8: SO strategic group 6

Healthcare organisations should ensure that existing **privacy control** measures are used efficiently and effectively when making use of the opportunities presented by **social networking**. This would best be effected by providing privacy control guidelines for patients and healthcare providers when using **social networking services applications in healthcare**.

5.4.2 Weaknesses versus Opportunities (WO) matrix

This section discusses how the identified weaknesses can be reduced by taking advantage of the opportunities presented. The weaknesses and opportunities are drawn from Figure 5.3 and presented diagrammatically as matched items for the purpose of showing the basis of the discussion to follow.

WEAKNESSES	OPPORTUNITIES
Access to healthcare Adoption of IT Inadequate human resources Access to technology	eHealth strategy Information Technology (IT)

Figure 5.9: WO strategic group 1

The weaknesses in **adoption of Information Technology (IT)** in South African healthcare and **access to technology** can be overcome by leveraging the opportunities presented by the South African eHealth strategy. The **eHealth strategy** supports the adoption of **Information Technology** to support healthcare delivery. eHealth provides **access to healthcare** services remotely, should **human resources** be inadequate. The use of **IT** (including social networking services) will contribute to overcoming the weaknesses of **access to healthcare** and **inadequate human resources** in effecting patient centred care.

WEAKNESSES	**OPPORTUNITIES**
Patients' privacy Healthcare providers' privacy	eHealth Strategy

Figure 5.10: WO strategic group 2

A key objective of the **eHealth strategy** is to protect privacy in the South African healthcare context. This opportunity presented by the eHealth strategy may be used to overcome the perceived weaknesses in **patient and healthcare provider privacy**, without which the adoption of social networking services for patient centred care, may be slow.

WEAKNESSES	**OPPORTUNITIES**
Inadequate human resources Access to healthcare	Information availability Information Technology (IT)

Figure 5.11: WO strategic group 3

The **inadequate human resources** and **access to healthcare** in South Africa can be ameliorated by the **information availability** that social networking services do provide and is also required in patient centred care to empower the patient. Should a patient or healthcare provider need additional information this can be sourced with the help of **Information Technology**.

5.4.3 Strengths versus Threats (ST) matrix

This section focuses on the use of the identified strengths to avoid or reduce the effects of the threats presented. The strengths and threats are drawn from Figure 5.3 and presented diagrammatically as matched items for the purpose of showing the basis of the discussion to follow.

STRENGTHS	THREATS
Ward-based community healthcare workers Communication	Misuse of information

Figure 5.12: ST strategic group 1

The threat of **misuse of information** can be avoided by ensuring that **ward-based community healthcare workers communicate** with (advise) patients who need assistance with interpreting information about their diagnosis and/or treatment. Using social networking services to effect patient centred care, **ward-based community healthcare workers** can be reached more effectively to facilitate communication in assisting patients, which in turn will reduce **misuse of information.**

STRENGTHS	THREATS
Patients' daily use of social networking services	Information quality

Figure 5.13: ST strategic group 2

With patients using **social networking services on a daily basis**, the experience gained will assist to mature patients' ability to distinguish between sources of information that are trustworthy or not, reducing the effects from the threat of inadequate **information quality**.

5.4.4 Weakness and Threats (WT) matrix

This section will discuss possible tactics aimed at reducing the identified weaknesses and threats. The weaknesses and threats are drawn from Figure 5.3 and presented

diagrammatically. Other than in Sections 5.4.1 – 5.4.3, the presentation and the discussion of the weaknesses and threats cannot be done as matched items as this strategic group (WT) does not attempt to juxtapose items from the different quadrants (weaknesses and threats). Rather the items (weaknesses and threats) are presented and discussed together if the tactics to reduce them are similar.

WEAKNESSES	**THREATS**
Professional conduct	Disbarment

Figure 5.14: WT strategic group 1

By addressing **professional conduct** through educating healthcare providers on what conduct is expected of them, violations of the Health Professions Council of South Africa Act, can be avoided, which in turn reduces the **disbarment** threat.

WEAKNESSES	**THREATS**
	Misuse of information Information quality

Figure 5.15: WT strategic group 2

Patients must be made aware of the risk involved in **misuse of information** to self-diagnose, for example. The use of social networking services for patient centred care may alleviate the situation as it implies patient access to healthcare providers, family and/or community who are informed about the patient's condition and treatment. A stronger network of support should discourage unilateral and uninformed action by the patient and should allow the patient to test **information quality** against various sources in this support structure.

WEAKNESSES	**THREATS**
Professional conduct Patient conduct Time consuming	

Figure 5.16: WT strategic group 3

Healthcare organisations must ensure that guidelines for patient and healthcare provider interaction in the social networking space are available. For example, these guidelines may specify hours during which this interaction may occur, set an expected

response time for patient submissions ("posts") and provide guidance on **patient and professional conduct** in using social networking services to effect patient centred care. This may assist to reduce healthcare providers' concern about the **time consuming** nature of using social networking services.

WEAKNESSES	THREATS
Patient's understanding of patient centred care	

Figure 5.17: WT strategic group 5

A **patient's understanding of patient centred care** can be improved by patients being trained or made aware at a level which is understandable by the patient.

WEAKNESSES	THREATS
	No clear definition or method of measurement for patient centred care Strategic directives for healthcare in South Africa

Figure 5.18: WT strategic group 7

It has been mentioned in Section 5.3.2 that the **South African strategic healthcare directives** do not uniformly incorporate and foreground social networking services for patient centred care in South Africa. The South African National Department of Health should address this omission to leverage social networking services for patient centred care. This should further serve to provide clearer guidance on the **definition of and method of measurement for patient centred care**.

5.5 Social Networking for Patient Centred care in South Africa Summary

In Section 5.2, twenty-eight (28) factors that influence social networking services for patient centred care in South Africa, were identified. These factors were subsequently analysed in Section 5.3 and plotted to the quadrants of a SWOT matrix. This provided the basis for conducting a TOWS analysis, which brought a number of insights to the fore.

The TOWS strategic group analysis, reflected on social networking services for patient centred care in South Africa in Section 5.4, by considering:

- The use of strengths to make use of opportunities; for example, the South African ward-based community healthcare worker approach should be leveraged to use social networking services for patient centred care;
- The use of strengths to reduce threats; for example, communication as part of a patient centred care approach will reduce misuse of information.
- Taking advantage of opportunities to reduce weaknesses; for example, the use of information technology to facilitate alternative modes of access to healthcare.
- Tactics to reduce weaknesses and threats; for example ensuring that guidelines are available to direct patient and healthcare provider interaction in the social networking space.

The TOWS analysis thus showed how to leverage strengths to use opportunities and reduce threats; how to take advantage of opportunities to reduce weaknesses; and listed some tactics to reduce weaknesses and threats in relation to the use of social networking services for patient centred care in South Africa.

5.6 Conclusion

This chapter identified the factors that influence social networking services for patient centred care in South Africa. The identification of the factors emerged based on a review of Chapters 2, 3 and 4.

Each factor was presented in a SWOT matrix. The overall result of the SWOT matrix was then analysed using a TOWS matrix as a way to explore the prospect of social networking services to support the patient centred care concept in South African healthcare.

The research is concluded in Chapter 6.

CHAPTER 6: CONCLUSION

This chapter summarises the work covered in Chapters 1 – 5 of this dissertation. Each chapter is reflected on briefly, while also revisiting the research problem statement and research objectives. The Chapter concludes by highlighting research limitations and future research.

The topics discussed are outlined as:

6.1 Chapter Summaries

6.2 Achievement of Objectives

6.3 Limitations

6.4 Future Research

6.5 Conclusion

Introduction

This chapter aims to summarise the study by discussing the outputs achieved throughout the study, highlighting study limitations and suggesting future research.

6.1 Chapter Summaries

A brief description of each chapter within the dissertation is provided below.

6.1.1. Chapter 1: Introduction

This chapter introduced readers to the problem area along with identifying the specific research questions and research objectives needed to address the problem area of the study. The main purpose of this chapter was to guide the researcher into establishing a problem statement with research questions and research objectives to be used as the researcher continues to investigate the problem identified as core to the research area of the study.

6.1.2. Chapter 2: Patient Centred Care

This chapter discussed patient centred care in more depth by identifying what patient centred care means in the healthcare setting and by identifying the elements of the patient centred care concept. Qualitative content analysis techniques were used in analysing patient centred care models and frameworks, in order to identify the elements of patient centred care.

6.1.3 Chapter 3: South African National Healthcare System

The South African national healthcare system was explored in more detail to gain an understanding of how the system operates as well as how current healthcare concerns are addressed in the South African healthcare system. The national strategic healthcare directives that were reviewed, were then cross referenced with the identified elements of patient centred care, to determine the extent to which patient centred care is incorporated within the South African healthcare directives.

6.1.4. Chapter 4: Social Networking Services and Healthcare

The Chapter started off by investigating social networking services in order to understand what a social networking service is and what types of social networking services there are. Social networking service types were then explored within the healthcare context by looking at its relevance as well as its application within

healthcare. The chapter concluded with the challenges of using social networking services in the healthcare context.

6.1.5. Chapter 5: Social Networking Services for Patient Centred Care in South Africa
This chapter identified factors that influence social networking services for patient centred care in South African healthcare. Each factor was analysed and presented in a SWOT matrix. A TOWS analysis was performed using the SWOT matrix as input, as a way to explore the prospects of social networking services for patient centred care in South African healthcare.

6.1.6. Chapter 6: Conclusion
Chapter 6 concludes the research undertaken by revisiting the problem statement and research objectives, research limitations and recommendations for future research.

6.2 Achievement of Objectives

The problem statement for this research as originating from Chapter 1 is:

Problem Statement
The proliferation of social networking services and the lack of understanding of the prospects of social networking services for patient centred care in South Africa.

Table 6. 1: Problem Statement

In order to address the problem statement, a set of research questions and research objectives were formulated in Chapter 1. The primary research question and primary research objective are presented Table 6.2

Primary Research Question	**Primary Research Objective**
What is the prospect of social networking services for patient centred care in the South African national healthcare system?	**To determine the prospect of social networking services for patient centred care in the South African national healthcare system.**

Table 6. 2: Primary research question and primary research objective

In order to achieve the primary research objective and answer the primary research question, four research sub-objectives and four research sub-questions were

formulated. These are discussed below as well as how each research sub-objective and research sub-question was met.

Research Sub-Question 1	**Research Sub-Objective 1**
How does South Africa incorporate patient centred care in its strategic healthcare directives?	**Determine how South Africa incorporates patient centred care in its strategic healthcare directives.**
Chapter 2 provided the background as to what the patient centred care concept entails by defining patient centred care and the elements of patient centred care. It was discovered that the patient centred care concept consist of two meta-elements, these being *Healthcare Context* and *Patient Engagement*. Both meta-elements are comprised by more than one element. For the healthcare context, the elements are the *Care Environment* and *Information Technology*. The *Patient Engagement* meta-element has the elements of *Communication, Relationships* and *Health Promotion*. With this knowledge of patient centred care, the South African healthcare sector was explored in Chapter 3 in order to determine how South Africa incorporates patient centred care in its strategic healthcare directives. It was found that support for the care environment, IT and health promotion elements of patient centred care emerged strongly. Thus South Africa does incorporate patient centred care in its strategic healthcare directives even if not explicitly, through the development and support of the elements (care environment, IT, communication, relationships and health promotion) of patient centred care.	

Table 6.3: Research sub-question 1 and research sub-objective 1

The second research sub-question and research sub-objective are discussed below:

Research Sub-Question 2	**Research Sub-Objective 2**
What social networking services are available in healthcare?	**Explore social networking services in healthcare.**
Chapter 4 highlighted the various social networking services types available for general use as well as its relevance to healthcare. The chapter showed that there is a wide variety of social networking services and each social networking service type serves its own purpose. The chapter further showed that there is progress in the use of social networking services in the healthcare context with a wide variety of applications in healthcare**.** The chapter concluded by investigating the challenges of using social networking services in healthcare.	

Table 6.4: Research sub-question 2 and research sub-objective 2

The third research sub-question and research sub-objective are discussed below:

Research Sub-Question 3	**Research Sub-Objective 3**
What factors influence the use of social networking services for patient centred care in the South African healthcare system?	**Identify factors that influence social networking services for patient centred care in the South African healthcare system.**
Chapter 5 (Section 5.2) reports on the factors that influence the use of social networking services in South African healthcare. The factors were identified using the discourse about patient centred care, the South African healthcare system and social networking services reported in the earlier chapters of the dissertation. In total, 28 factors were identified.	

Table 6.5: Research sub-question 3 and research sub-objective 3

The fourth research sub-question and research sub-objective are discussed below:

Research Sub-Question 4	Research Sub-Objective 4
How do these factors affect the prospect of social networking services to support a patient centred care approach in South Africa?	**Determine how the identified factors affect the prospect of social networking services to support a patient centred care approach in South Africa.**
In Chapter 5 (Section 5.3) the factors affecting **the prospect of social networking services to support a patient centred care approach in South Africa**, were analysed and presented in a SWOT matrix. Subsequently, a TOWS analysis was performed using the SWOT matrix as input. The TOWS analysis showed how to leverage strengths to use opportunities and reduce threats; how to take advantage of opportunities to reduce weaknesses; and listed some tactics to reduce weaknesses and threats in relation to the use of social networking services for patient centred care in South Africa.	

Table 6.6: Research sub-question 4 and research sub-objective 4

6.3 Limitations

No primary data was collected for the study. The objectives of the study were achieved through secondary data.

Due to time and scope limitations, only a selection of South African directives in the healthcare context was analysed. It is acknowledged that further analysis of an extended list of South African healthcare directives could impact on the outcome of this research.

6.4 Future Research

Future research could involve investigation of additional South African healthcare directives at a finer level of granularity. This can be supplemented by the collection of primary data to better understand how patient centred care is incorporated in practice in South Africa and how this can be supported by social networking services.

6.5 Conclusion

This chapter concluded the dissertation. The chapter showed that the objectives of the study were accomplished. The output of this study represents a useful input for healthcare providers and administrators in government aiming to introduce social networking services in support of patient centred care in South Africa.

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