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MORE THAN WORDS: The role of Communication in Doctor-patient relationship in the management of a chronic lifestyle disease such as Diabetes Mellitus in South Africa.

A thesis submitted for the degree of Doctor of Philosophy in the Faculty of Humanities, University of the Witwatersrand.2017

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2017

DECLARATION

I, Paula Nicole Diab, hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the award of any other degree or diploma of the university or other institute of higher learning, except where due acknowledgement has been made in the text.

Signature:

Date:

DEDICATION

This thesis is dedicated to all those in the field of diabetes – the patients and their families who constantly stimulate and motivate us to provide enhanced care as well as the many dedicated health professionals whose ambition it is to provide this care.

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ABSTRACT

This study explores the role of the doctor-patient relationship in the management of diabetes in South Africa. The originality of this study lies in the unique manner in which the topic is approached from an explicit theoretical perspective as well as the context in which it is studied. It takes into account the biomedical aims of diabetes management as well as the socio-cultural context of the environment in which communication occurs.

Diabetes Mellitus is a chronic disease of lifestyle (CDL) and one of the most prevalent chronic diseases, both globally and within South Africa. In South Africa, although statistics vary across provinces and within different demographic and socio-economic groups, it is estimated that about 5.5% of the population over the age of 30 years, has diabetes. The disease has a significant impact on morbidity and mortality in the country, as well as on socio-economic development. The need to improve diabetes education and awareness, in addition to the need to address patient adherence to management plans and the prevention of complications, are vital in order to effectively manage this rising epidemic.

Current management of diabetes favours an individualised approach to risk reduction. This involves patient adherence to a negotiated (between doctor and patient) management plan, as well as modifications in the patient's lifestyle behaviours. International literature on adherence to the management plans of all CDLs suggests that there are many challenges. Furthermore, most studies have shown that there are shared common barriers inherent to all chronic diseases, where the complexity and chronicity of treatment are major factors in adherence. Despite the large number of studies and the identification of many influencing factors, few direct and replicable causal links to adherence have been found. Models of adherence from other chronic diseases in South Africa have highlighted the importance of patient motivation to change behaviour as being linked to their perceptions and beliefs, formed by the attitudes of those with whom they interact.

A review of the literature on health communication in various fields of medicine identifies the need for a firm perspective and justification of the methodology employed in the study. Various theoretical stances are examined but it is ultimately the interaction between doctor and patient within the socio-cultural context of the consultation that is seen to be most relevant. A social constructionist perspective is justified as the basis from which a disease such as diabetes, which requires complex therapeutic manipulation and lifestyle adaptations, can be studied.

A brief overview of medical education is also discussed as it pertains particularly to the teaching of communication skills and behaviours. This becomes relevant as it is medical training that ultimately informs clinical practice. In recent years, medical education has been called upon to be more socially relevant and incorporate a multitude of supporting competencies into training. These models are described and interrogated with relevance to the study aims.

The research was conducted in the province of KwaZulu-Natal (KZN) in South Africa within the diabetes clinics of two district level public health care institutions; one was located in the eThekwini metropolitan area (Durban) and the second at a rural site in northern KZN. These hospitals were purposively selected because of their contrasting locations, reflecting diverse socio-economic, ethnic, racial and language groups, thus providing a rich set of data. In keeping with the social constructionist

perspective of the study, natural consultations at both sites were the primary source of data aimed to focus on the communication between doctor and patient. A total of 24 routine diabetes follow-up consultations provided the data source. Consultations between patients and doctors were audio- and video-recorded and ethnographic observations were made by the researcher, who was an observer in all consultations. All consultations were transcribed, translated into English if necessary, and analysed using elements of conversational analysis transcription conventions. In order to understand the contextual environment of the study, ethnographic observations made by the researcher during the consultations and other site visits are also included in the data set. These observations are presented and contrasted with the experiences of doctors and patients as explored in interviews and focus group discussions at each site. Participants were asked to comment on their experience of their clinical care as well as the interaction with their doctor and their ability to manage their diabetes. By using multiple data sources and contrasting the findings, the study provides a robust framework from where communication in diabetes can be examined.

By analysing the data from a socio-constructionist viewpoint it became evident that the relationship between doctor and patient was a strong influential factor on disease management. Furthermore, the manner in which various communication behaviours were interpreted was seen to be able to transcend the superficial socio-cultural environment should other interpersonal factors mitigate the relationship. Not only was the process by which communication content delivered important, but also the underlying attitudes, past experiences and broader context of the consultation. If patients and doctors found themselves in the position to internalise the behaviours experienced in the consultation, their feelings, ideas and beliefs towards one another and diabetes was seen to change. Over time, it was suggested that these new attitudes would feedback either positively or negatively on future interactions.

This study also showed how cultural norms cannot be part of a checklist but that they are dynamic over time and are influenced by a multitude of factors, including past experiences and mutual respect, which need to be understood from an interactional and relational perspective. A new model that incorporates existing knowledge coupled with integration of clinical, scientific diabetes management and the art of communication is also described.

The findings from this study should be used to guide and inform clinical practice in order to improve health outcomes for those living with diabetes. By extension, they should also be used to inform medical education models where communication is being incorporated into clinical skills training. As was found by observing and analysing clinical practice behaviours for the purpose of this study, the author believes that by internalising experiences, students may be able to forms new ideas and attitudes towards communication which will enhance their clinical practice. The methods utilised in this study have also highlighted the fact that previous methods have not been sensitive enough to the human dynamics that occur in health communication in diabetes and future research should be developed with a strong theoretical perspective that guides an appropriate methodological approach.

This study depicts the pivotal role communication plays within each unique consultation and how the manner in which the interaction is perceived and interpreted will have a strong influence on behavioural decisions. However, it is not merely the words that are spoken or the language in which they are spoken but rather the internalisation and adaptation to the context that will ultimately will guide behavioural change.

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LIST OF ABBREVIATIONS AND TERMS

COMMON ABBREVIATIONS

CHEER: Collaboration for Health Equity through Equity and Research
ECG: Electrocardiogram
FGD: focus group discussion
HAART: Highly Active Anti-Retroviral Therapy
HIV: Human Immune-deficiency Virus
HPCSA: Health Professions Council of South Africa
HSRC: Human Sciences Research Council
KZN: KwaZulu-Natal
SABC: South African Broadcasting Commission
SEMDSA: Society for Endocrinology and Metabolic Disease in South Africa
TB: Tuberculosis
UKZN: University of KwaZulu-Natal

EXPLANATION OF ISIZULU TERMS USED

Baba = "father", polite form of address for a male older than the speaker
Gogo = "grandmother", polite form of address for an elderly woman
Hlonipha = respect
Isibongo = surname
Isithakazelo = clan name
Mama = "mother", polite form of address for a female older than the speaker
Mkhulu = "grandfather", polite form of address for an elderly man

PART 1: COMMUNICATION AS A SOCIAL CONSTRUCT IN THE CONTEXT OF THE MEDICAL CONSULTATION

CHAPTER 1: INTRODUCTION

This study highlights communication between a doctor and patient. The study focus is on communication during routine follow-up consultations in the public health care system of South Africa. The context of diabetes is chosen specifically due to the complex nature of communication continually required in the effective the management of a chronic lifestyle disease (CLD). The study acknowledges the importance of communication and the potential impacts it may have on disease management. It aims to provide new insights to both diabetes management as well as the study of communication in the medical consultation.

The purpose of this chapter is fourfold. Firstly, it outlines a background to the study. Secondly, it describes rationale for the research. Thirdly it places emphasis on the study context. Fourthly and importantly, it foregrounds the perspective of the researcher and the role she plays as an insider and outside in the methodology. An explicit aim of the study is to gain evidence to add to an expanding body of knowledge around the importance of effective communication in chronic disorders.

The study will highlight a need for further research and will also guide curriculum development in undergraduate and postgraduate medical curricula. Findings may be extrapolated beyond medicine to guide other healthcare professionals in communicating effectively with patients in this context. An overarching aim is of course to improve the lives of people who suffer with diabetes.

1.1 Background to the Study

Diabetes Mellitus Type 2 (referred to hereafter as “diabetes”) is one of the most prevalent chronic diseases, both internationally and within South Africa. The disease has a significant impact on morbidity and mortality, as well as on socio-economic development. The need to improve diabetes education and awareness, management of the disease and prevention of complications is a public health priority.

Current management favours an individualised approach to risk reduction, which involves communication between a doctor and patient towards maximising adherence to medication as well as lifestyle advice. Multiple factors affecting patient adherence have been previously identified relating either to the patient or the clinician as well as factors within the health care system, the disease itself and other mixed factors. Although few of these studies have showed a conclusive "cause and effect". Some studies have highlighted the influence of communication within the interpersonal relationship between doctor and patient as a contributing factor to diabetic management which will be further explored in Chapters 2 and 3.

This study will examine communication within a doctor-patient relationship in detail and will consider the potential impact of communication on diabetes management, particularly within the diverse socio-cultural environment of South Africa.

The setting for this study is the province of KwaZulu-Natal (KZN), one of the most economically, socially and culturally diverse provinces in South Africa. The study sites were twofold; data were collected in two public health hospitals in contrasting locations, one rural and one urban.

1.2 Approach to the study

Working in the field of diabetes, one comes to understand the complexity of management. This complexity is reflected in the enormity of literature and the advances of scientific technology in the field. In the last decade, analogue insulins have become available offering patients greater flexibility and predictability of response in their therapy; new classes of oral and injectable agents have become available offering more options both prior to and in conjunction with insulin therapy; we understand more about the concept of "pre-diabetes" and "impaired glucose tolerance" and are better able to manage the risks factors leading to diabetes. Other medical and surgical disciplines have joined in the fight against diabetes with procedures such as bariatric surgery which has, in some cases, reversed the diagnosis of diabetes for patients. Insulin pump therapy has become available allowing patients to administer minute doses of insulin at specific times according to individual daily activities and routines. And now we stand on the brink of affording our patients the opportunity to have continuous glucose monitoring and "smart insulins". This is just a taste of what has been achieved by medical science in the last decade. And yet, we are STILL faced with patients sitting before us who are not optimally controlled, do not understand their diabetes and for whom these advances have made no impact on their life whatsoever.

The medical field is very much engrained in positivist thinking. By this, I mean that doctors see the world as largely subjective and predictable. The emphasis of research on quantitative work points to underlying ontology and epistemologies that people can be essentialised, standardised and predicted. This study does not aim to undermine such thinking as it is vital in gathering new evidence around the causes and effective therapeutic management of disease. In positivism any new knowledge and evidence is welcomed and incorporated into existing beliefs and practices. The positivist researcher reflects on what is the best practice which can be generalised to all situations for the effective management of disorders.

A positivist approach will however not have the ability to consider the individuality of people. Patients are not isolated individuals ready to absorb and understand the advice of a doctor. They are part of interconnected systems of social and cultural bonds. Their ideas, beliefs, feelings and expectations are shaped by their multifaceted contexts and such contexts profoundly influence their attitudes, knowledge and behaviours. A recent report by Napier et al. (2014) highlighted the important role that culture plays in health care. The commission concluded that sociocultural process on biological ones needs to be prioritised in research and that understanding these effects will have significant benefits for health care. Furthermore, the socio-cultural context in which people are situated is a dynamic environment influenced by multiple perspectives and is identified by various behaviours. Could environments and circumstances be considered in doctor patient communication? For example, could patients *become* better adherent to their medication despite limited knowledge of biomedical concepts? What are potential factors in communication that can assist a doctor to expand her thinking beyond the confines of a consultation room, beyond her own worldview, to enable her to begin to understand the reality of her patients?

In celebrating that every patient is different and that communication cannot be categorised, measured and standardised, this study could not employ a positivist paradigm and associated research methodologies. Rather, this study adopts a qualitative paradigm that focuses on how the interpersonal relationship develops between doctor and patient and the potential influence this may have on managing diabetes. By taking an in-depth look at communication events in order to understand the dynamics of these interactions, the observed phenomena may be appreciated and understood within a unique context (Thompson, Cusella & Southwell, 2014).

1.3 Rationale for the Study

The main rationale for this study is to place communication in a social context and view its influence on the management of a chronic lifestyle disease such as diabetes during regular follow-up consultations.

Despite South Africa being almost synonymous with HIV and infectious diseases over the last two decades, it also faces the challenges of chronic disease (see Section 1.4.2 below). The experience of the researcher has also shown the devastation of poorly managed diabetes. Diabetes management involves paying attention to a great range of factors that influence control of glucose: dietary modifications, lifestyle adaptations as well as a significant burden on the patient in terms of day-to-day management of their disease. Not only, is diabetes one of the most prevalent of all chronic conditions but its onset is often insidious, multiple risk factors are present and patients present at the time of diagnosis with severe complications. In addition, all of these complications are preventable if managed appropriately.

When managing a chronic disease, the journey, including ongoing communication, taken by patients and their health care providers becomes far more significant than in treating an acute condition such as pneumonia. There is no “one-size-fits-all” treatment in diabetes and therefore management plans have to be tailored and communicated to suit the lifestyle of the patient, the treatment goals and the resources available. In order for high quality care to be achieved communication between patients and their providers becomes crucial.

The rationale for this study is to add to the body of evidence on doctor-patient communication and diabetes management in the context of South Africa and thereby contribute to more effective health care. More specifically, it will focus on communication between a doctor and patient which is reflected in the interpersonal relationships and the importance of these relationships in guiding disease management within a particular socio-cultural context. It is anticipated that the findings of this study may be able to inform clinical practice, guide further research and improve communication curricula in health sciences at South African universities.

The rationale for the study is supported by a report by Napier et al. (2014) which highlighted the integral role of sociocultural beliefs and practices in health and well-being and expressed the need to address these issues within clinical practice as well as education and research. In addition, the commission concluded that imported practices (for example diabetes management or communication models from the developed world) should be aligned with local cultural meaning and adapted for the local community. Currently models that guide interpersonal communication within the consultation have been developed outside of the South African context and thus an exploration of the way in which relationships are formed and communicated within our own environment is essential.

A further rational for the study arose on a personal level when the researcher observed over years of clinical experience, the difficulties in communicating with and managing patients with diabetes and the burden that poor management places on the health care system. Having observed different approaches to management, the question as to the importance of communication within the interpersonal relationship and how it influences health outcomes is raised. Other observations have included the ability of some patients to maintain optimal adherence despite numerous adversities contrasted with the perceived apathy and poor prioritisation given by other patients towards their disease. These observations and reflections have led to a passion to understand the role of communication between a doctor and her patient and how communication plays out in diabetes management and how subsequent interactions with patients can be affected.

1.4 Study Context

The manner in which communication and interpersonal relationships between doctor and patient manifest themselves within the unique socio-cultural context of South Africa is not well researched. Researchers have suggested that the way in which health care practitioners (HCPs) communicate with their patients is influenced by economic, political, cultural and organisation factors (Street, Gordon & Haidet, 2007; Street, Thompson, Dorsey, Miller & Parrott, 2003). The systemic factors as well as disease burden that form the “background noise” to healthcare in South Africa are described below and provide an important framework for this study. A greater understanding of these contextual issues and how they assist in constructing the social reality in which the consultations take place will enable a deeper analysis of their potential impact on doctor-patient relationships. The role of the researcher is also foregrounded in this chapter whilst other participants in the study are detailed in Chapter 4. Diabetes itself, forms an integral context for this study as the management of a lifestyle disease relies heavily on social factors such as diet, activity or exercise, occupational factors etc. and will be discussed in further detail in Chapter 2.

1.4.1 Healthcare system of South Africa

Data drawn from the World Health Organisation's Global Health Expenditure Database and reported by McIntyre, Doherty, and Ataguba (2014), indicates that South Africa spends 8.8% of its gross domestic product (GDP) on health care. Of the other middle income countries studied only Costa Rica was shown to spend a greater percentage of its GDP on health care (9.3%) however the life expectancy at birth in Costa Rica was 78 years in comparison with South Africa's life expectancy of 48 years and the infant mortality rate in Costa Rica was 8/1000 live births as opposed to South Africa's 53/1000 live births. Other middle income countries were shown to spend between 3.8% (Malaysia) and 7.9% (Brazil) of their GDP on health care. Sadly, South Africa exhibits the lowest life expectancy and highest infant mortality rate of all countries studied (McIntyre & Thiede, 2007). South Africa's health care expenditure approaches that of high income countries despite health status indicators being significantly lower than those of higher income countries. South Africa is characterised by a dual health care system, with sharply contrasting public and private health care systems. The sectors differ, inter alia, in terms of quality of care, accessibility and human resource characteristics.

The private health care system is available to a small minority of the population that is able to afford health care insurance, either in their personal capacity or as employees of a company that funds their health care. Non-insured patients may also choose to access the private health care system on a fee-for-service basis. This system offers health care, in terms of the equipment, technology, expertise and quality of care, equivalent to that of high-income countries (Padarath et al., 2003; Soderlund, Schierhout, & van den Heever, 1998). Recent statistics indicate that 75% of all doctors in South Africa are in private practice, serving the population at a ratio of 1.37 doctors per 1000 people (Padarath et al., 2003; Rowe & Moodley, 2013). In this sector, doctors and patients may share demographic and socio-economic similarities, although being a fee-for-service model, time constraints often govern interactions

In contrast, the public health care system is designed to be available to all South Africans and a sliding scale is utilised in order to calculate fees payable. Many patients accessing this system are classed as "indigent" and therefore do not pay fees. In addition, maternal and child health care (below age five) is provided free of charge, as is care for sexual assault, tuberculosis and HIV-related care (Wilkinson, Gouws, Sach, & Karim, 2001). In general, the system is characterised by poor staffing, sub-optimal working conditions, severe financial restrictions, which limit diagnostic and management options, and an over-burden of patients and disease (Goudge, Gilson, Russell, Gumede, & Mills, 2009; McIntyre & Thiede, 2007). Furthermore, the public system serves 68% of the South African population with only 25% of the doctors, giving a ratio of 0.37 doctors per 1000 people (McIntyre & Thiede, 2007). It is this public health care system that bears the responsibility for the management of the majority of patients with diabetes and other CLDs.

This dualism in health care provision has given rise to the unique situation where some patients have access to world-class care by experts in their professional fields, whereas the vast majority of the population is dependent on a health care system that experiences multiple challenges. A study undertaken in 2011 to evaluate the inequities in health care in South Africa concluded that it is indeed the lower socio-economic groups that have the poorest access to health care (Harris et al., 2011). Some patients are able to access both systems interchangeably, although sharing of notes and treatment decisions is not common which can result in difficulties, particularly with respect to chronic disease management (Tjale & De Villiers, 2004).

Human resource challenges pose a significant impact on doctor-patient relationships. The public health care system has been affected by both the emigration of qualified professionals, as well as the exodus of health professionals from the public to the private sector (Coovadia, Jewkes, Barron, Sanders, & McIntyre, 2009; McIntyre & Thiede, 2007). A year of compulsory community service was initiated in South Africa in 1998 in an attempt to improve service delivery in the public service and in particular, rural areas. Initial studies indicated that a lack of supervision and adequate resources during this year of service may have paradoxically contributed to the loss of health professionals from the public sector (Reid, 2001; Ross & Reid, 2009). Investigations into the career choices of medical graduates have also indicated an efflux into the private sector and out of the country (Burch et al., 2011; Price & Weiner, 2005). However, more recent studies show that with adequate supervision and support, community service may be effective in creating more equitable distribution of health care in South Africa (Hatcher, Onah, Kornik, Peacocke, & Reid, 2014). Individual follow-up of patients within the healthcare system is often difficult as members of staff are assigned to areas within the hospital rather than to individual patients. The rotation of staff and shift-work may also result in patients accessing multiple different HCPs during their visits to the service. More recent literature is beginning to highlight the crucial role played by the health care practitioners in the way in which chronic diseases are being managed and perceived by patients and the active role that HCPs have in empowering, motivating and enabling patients to take responsibility for behavioural change in chronic disease management (Murphy, Chuma, Mathews, Steyn, & Levitt, 2015). The focus within the South African public health care system currently is on trying to improve staff training and resources available as well as to reorganise primary health care to concentrate on disease prevention and health promotion (National Department of Health, 2013).

Access to public health care facilities, especially in rural areas, is an additional public health challenge. The historical legacy of apartheid dictates where services are situated and there are limited resources available to alter this distribution. Hospitals serve areas that are not always equivalent to municipal boundaries and physical access may be limited by geographical barriers (Goudge et al., 2009). Although district hospitals are distributed throughout the provinces, regional level care is not as easily available. There are 13 regional hospitals within the province of KZN, the research study area. However, six fall within the eThekweni metropolitan area and eight lie within a 90km distance of the urban centre of Durban. Only one regional hospital serves northern KZN and another one, southern KZN. Three hospitals are located in the interior of the province (Figure 1.1). This distribution highlights the vast inequalities in access to public health care.

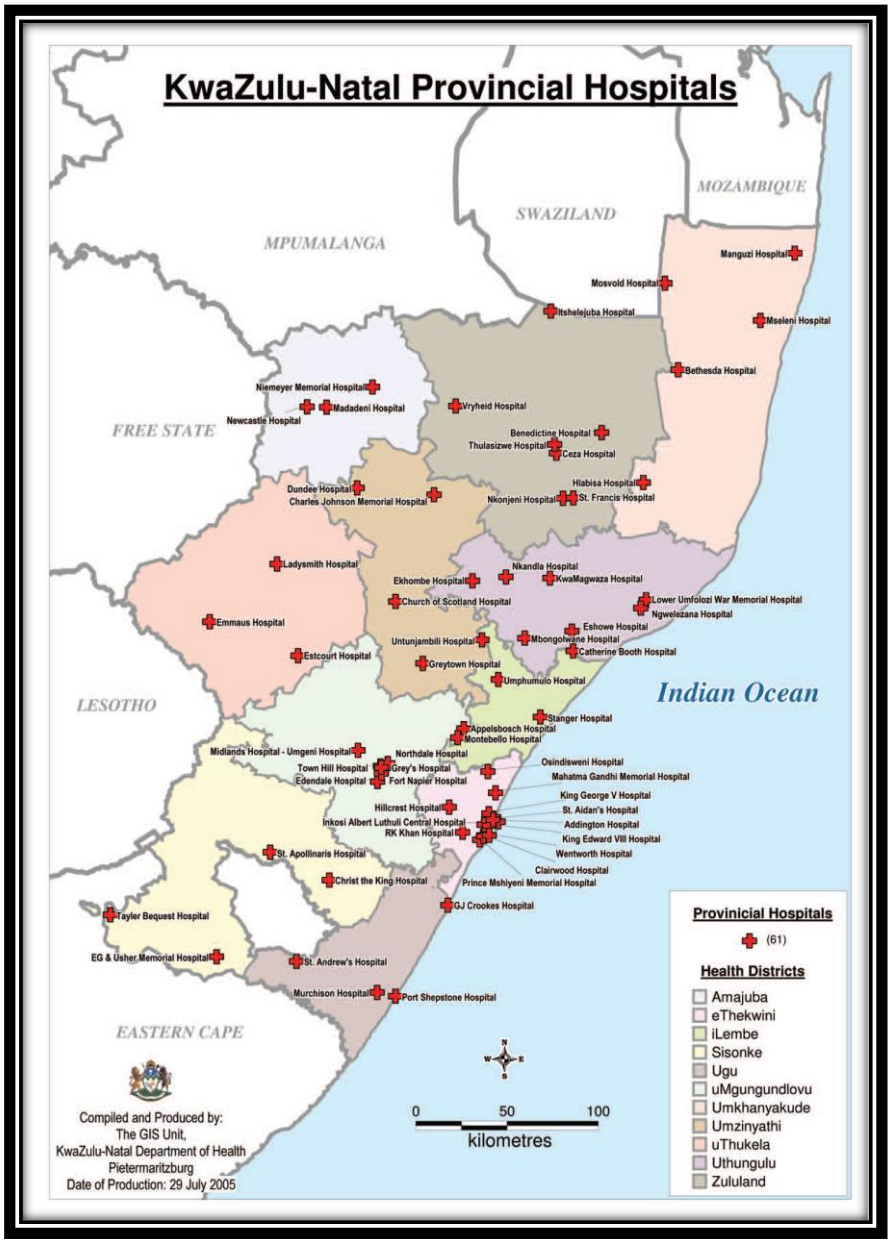

Figure 1.1: Map of KwaZulu-Natal showing health districts and provincial hospitals (KwaZulu-Natal Department of Health, 2005)

Political will has encouraged transformation within the public health care system of South Africa, with a renewed emphasis on service delivery (Mullan & Epstein, 2002). *Batho Pele* principles[1] (Department of Public Services and Administration, 1997) have been introduced and National Core Standards[2] (National Department of Health, 2011) are being promoted to improve the quality of service that patients receive. However, lack of resources, understaffing and poor management are challenges that still prevail. A new National Health Insurance (NHI) system has been suggested and is currently being

[1] Batho Pele principles developed by the National Department of Health (NDoH outline the code of conduct which should be upheld within public health care).

[2] A series of standards of basic health care that should be provided in all South African public hospitals

piloted in some health districts around South Africa. The intention is to merge the two health care systems by upgrading current public health resources to provide primary health care to the majority of the population and enable private health care facilities to assist the state facilities when specialist services are required.

1.4.2 Burden of disease in South Africa

The burden of disease in South Africa is referred to as a 'quadruple burden' of disease, referring to both communicable (including HIV/AIDS) and non-communicable diseases (NCDs), the high rate of health problems due to injuries, and high maternal and child mortality (Bradshaw et al., 2005). Communicable diseases are common in developing countries, including South Africa, whilst NCDs are associated with more developed and industrialised nations. However, the rapid urbanisation and increased pressure of Westernised lifestyles has resulted in NCDs becoming prevalent even in developing nations. A brief contextualisation of this burden is relevant in order to understand the environment in which diabetes exists in South Africa and is managed.

Communicable diseases are traditionally equated with a high disease burden in developing countries where patient education and health literacy is poor. This burden of disease includes respiratory diseases such as TB and pneumonia, tropical diseases such as malaria as well as other microbial and zoonotic diseases prevalent in such communities (Mayosi et al., 2012). The threat to public health resources posed by these often preventable and imminently treatable conditions is high.

The HIV epidemic in South Africa has placed an unprecedented burden on the health system, both financially and in the provision of care. Currently, 5.6 million people in South Africa are living with HIV and 1.4 million receive Highly Active Antiretroviral Treatment (HAART) making it the largest antiretroviral programme in the world (Mayosi et al., 2012). The stress of the HIV epidemic on the South African healthcare system, limited resources in the public health care setting, loss of senior supervisory staff and bureaucracy within the health care system have all been shown to contribute to the sub-optimum standards of care within the public health care setting in general (Gaede, Mahlobo, Shabalala, Moloi, & van Deventer, 2006; Levitt, Steyn, Dave, & Bradshaw, 2011).

Apart from the enormous financial burden that HIV has had on the health care system, HIV also shares many links with diabetes (Molleutze & Levitt, 2006). Initial estimates suggested that the prevalence of diabetes in South Africa would be reduced as a consequence of the population growth rate decreasing due to HIV (Panz & Joffe, 1999). However, more recent estimates have indicated that diabetes prevalence in South Africa will rise despite the impact of HIV, and that the health services should not discount the significant impact that diabetes will have (Molleutze & Levitt, 2006).

Currently, it is estimated that about 2.6% of patients have both diabetes and HIV. A 2004 study suggested that up to 10% of patients on HAART develop diabetes within four years of commencing HIV therapy (Calza, Manfredi, & Chiodo, 2004). Aside from the usually accepted risk factors for developing diabetes, patients with HIV are also at risk due to the rapid weight gain in the catabolic stage of the disease, co-infection with Hepatitis C, dyslipidaemia with lipotoxicity, lipodystrophy and other iatrogenic causes (Khutsoane, 2012). Furthermore, the anti-retroviral (ARV) drugs that are prescribed, particularly nucleoside reverse transcriptase inhibitors (NRTIs) and protease inhibitors (PIs) may also cause dysglcaemia by various mechanisms (Khutsoane, 2012).

The advent of HIV has also heralded a new era in health research that has bridged the gap previously evident between the contrasting worlds of medicine and sociology (Yach, 1992). The complex factors evident in the battle against HIV that involve human behaviour and stereotyping have forced the medical fraternity to examine their purely scientific approaches and utilise the knowledge gained in the humanities and social science fields in order to understand and develop management strategies in the field of HIV. This has paved the way for other chronic diseases to be examined as well within a sociological framework and has provided new insights into medical management of these diseases. (Kagee et al., 2011) indicated that adherence to HAART may well have political, cultural and system influences similar to those identified for diabetes above. (Penn, Watermeyer, & Evans, 2011) also looked at the issue of adherence to HAART and identified the importance of cultural barriers.

HIV research has had to address the prejudices of human behaviour and examine the manner in which those living with HIV are perceived within society. The aetiology of HIV is such that human behaviours are judged as a reason for contracting the disease despite these reasons not being the sole mechanism of HIV transmission. Management of the disease also requires a change in lifestyle. Human behaviours and the links between development of the disease and marginalised groups in society have forced clinicians to look beyond cultural stereotypes and treat the individual. This has had a great impact on the way in which clinical medicine has come to embrace a broader approach that goes beyond purely medical, for the solutions to clinical problems. Thus the methodologies employed in HIV-research in this regard have provided an important base to developing this study and are discussed in more detail in Chapter 3.

Non-communicable diseases[3], of which diabetes is one, pose a growing challenge to healthcare in South Africa. The first national burden of disease study in South Africa published in 2003 and which combined data from the National Department of Home Affairs, Statistics South Africa and the National Inquiry Mortality Surveillence System, found that NCDs accounted for 21% of years of life lost (Bradshaw et al., 2003). In response to this challenge, the Ministry of Health called a national summit on NCDs in 2011 to plan government's response and resources (Mayosi et al., 2012). Some of the targets specific to diabetes included reducing the prevalence of obesity by 10% and increasing physical activity by 10% (Department of Health, 2011). In August 2013, the Academy of Science of South Africa (ASSAf) hosted the Inter-Academy Medical Panel Conference which focussed on NCDs (ASSAf, 2013). This conference highlighted the modifiable risk factors of NCDs, in particular obesity, which is causing a rise in the incidence of diabetes in South Africa. Chronic lifestyle disease (CLD) refers specifically to those NCDs such as diabetes, hypertension and hyperlipidaemia that have modifiable risk factors such as diet, alcohol consumption, smoking and physical inactivity (Steyn, Fourie, & Temple, 2006). Despite these interventions, management on the ground level remains virtually unchanged and accounts for a significant proportion of hospital morbidity.

Finally, injuries and maternal and childhealth form the remainder of the quadruple burden of disease in South Africa. Any one of these disease entities would pose as significant burden to the health care system. However, the management of diabetes and other chronic diseases share the platform with these challenges. Significant Millennium Development Goals (MDGs) designed to improve health have not been met and in some cases have actually worsened. These include the eradication of extreme poverty and hunger, the reduction of infant mortality for children under five years of age and

[3] Defined by The Global Burden of Disease studies defined NCDs as diseases not acquired via a biological organism, maternal, perinatal, injury or malnutrition and include diseases such as epilepsy and renal disease (Lopez & Murray, 1998)

improved maternal health. Aside from the economic and health care drain on society that this disease burden has had, it has also affected social life with a “lost generation” of orphans attributed to loss of life from HIV and a subsequent fall in intellectual development, social upbringing and nurturing of young children. The onus has fallen heavily on elderly family members to take care of the younger generation and has resulted in old age pensions and disability grant support for entire households.

1.4.3 Socio-cultural environment

Over and above the influences of the duality of the South African health care system and the quadruple burden of disease, the socio-economic and socio-cultural context has relevance. South Africa is referred to as a developing nation although it is characterised by vast differences between the wealthy and the poor. Poverty, economics and race share a complex interdependency in South Africa which has changed over the last two decades but has certainly not been eradicated. Although the proportion of people living in poverty has not altered much, the range in income has widened. The province of KZN has amongst the highest incidence of poverty in South Africa (HSRC, 2014).

1.4.3.1. Poverty & social status

South Africa is ranked as the country with the greatest inequality in the world possessing a GINI co-efficient in 2011 of 0.77, with the poorest fifth of the population accounting for 2% of the country’s income and expenditure and the richest fifth accounting for 72% of the income (Population Reference Bureau, 2012). KwaZulu-Natal has the highest number of poor households countrywide and one of the greatest ‘poverty gaps’ of all nine provinces in South Africa which has only been reduced slightly from 24.2% in 2006 to 17.5% in 2011 (Lehohla, 2014). Furthermore the majority of these households are still located in rural areas (55.2%) compared to only 22% in urban areas (Lehohla, 2014).

Poverty has important implications for diabetes management and the nutritional choices that are available to patients. Socio-economic barriers to adherence have been highlighted in some South African studies (Ebrahim, De Villiers, & Ahmed, 2014; Goudge et al., 2009; Haque, Emerson, Dennison, Navsa, & Levitt, 2005; Kagee et al., 2011). In addition, optimum diabetes management requires that food choices are available and accessible. If food security is a concern for patients, this may pose serious limitations on the choices they are able to make and the appropriateness and acceptability of the advice given (Nthangeni et al., 2002).

An important related factor to poverty is that of social status or power. Although the paradigm of this study argues against the importance of power afforded by gender and social status, it is essential to acknowledge this environment. The legacy of apartheid and the way in which the health system operates favour certain power differentials. Bantu Education policies ensured that African people remained relatively uneducated and suitable only for menial employment in society (Coovadia et al., 2009). Thus the rural, poorly educated African patient would be seen as someone who had a relatively low power status, having little or no choice in where they would like to receive their treatment or which doctor they would like to visit. Urban residents from different racial and ethnic backgrounds may have had more options available to them as they lived in one district, worked in another and travelled in yet another affording them the opportunity to choose where they might like to receive treatment. Furthermore, more clinics are available in urban areas allowing greater freedom of choice.

Gender differences may also contribute to power imbalances at play within the South African health care system. Only in the post-Apartheid era has gender equality been brought to the fore (Coovadia et al., 2009). Historically, migrant labour practices amongst the African population resulted in husbands and wives being separated often for long periods at a time. Men took on multiple partners and women were left alone to find menial, domestic work and care for the children at home. The dominance of the white male emerged as a power figure, with women taking on a much more secondary role in society (Morrell, Jewkes, & Lindegger, 2012). Traditional African customs also tend to favour the socialisation of boys to dominate women, with emphasis on physical prowess (Morrell, 1998).

The social status of a doctor has always afforded that person a position of power. Associated with this power are attitudes of trust and respect in the medical profession and the doctor himself. All doctors hold bachelors' degrees, with specialists having more than ten years of formal tertiary education behind them. Patients utilising the public health system in South Africa, are very often unemployed or receive minimal monthly incomes. This disparity may further complicate the power dynamics that exist in the doctor-patient relationship. Although some doctors may share ethnic and racial backgrounds with their patients, the medical culture into which they have graduated, affords them the opportunity to identify with aspects of another culture, a more powerful subculture.

1.4.3.2 Language

Language is an essential feature of communication and has been identified as an important factor in the negotiation of the doctor-patient relationship (Perloff, Bonder, Ray, Ray, & Siminoff, 2006). South Africa has eleven official languages; some have distinct regional characteristics, while others, such as English and Afrikaans, are spoken throughout the country. isiZulu is the most widely spoken home language in South Africa, with 22.7% of the population reporting it as their home language according to the 2011 census (Statistics South Africa, 2012). Although English is recognised internationally as a language of status and used to gain better access to services and opportunities, the reality in South Africa is that not all people in the country are fluent in conversing in the language. Within the province of KZN, isiZulu is the most widely spoken African language, with just less than 78% of the KZN population speaking isiZulu as a first language; 55% of the population regard themselves as fluent in English (Statistics South Africa, 2012) with the difference between urban and rural areas being marked. Only 12% of the population are fluent in English in rural areas, compared with 80% in urban areas. Figure 1.2 shows the geographical distribution of isiZulu as it is spoken through the country, highlighting its dominance in the research study area.

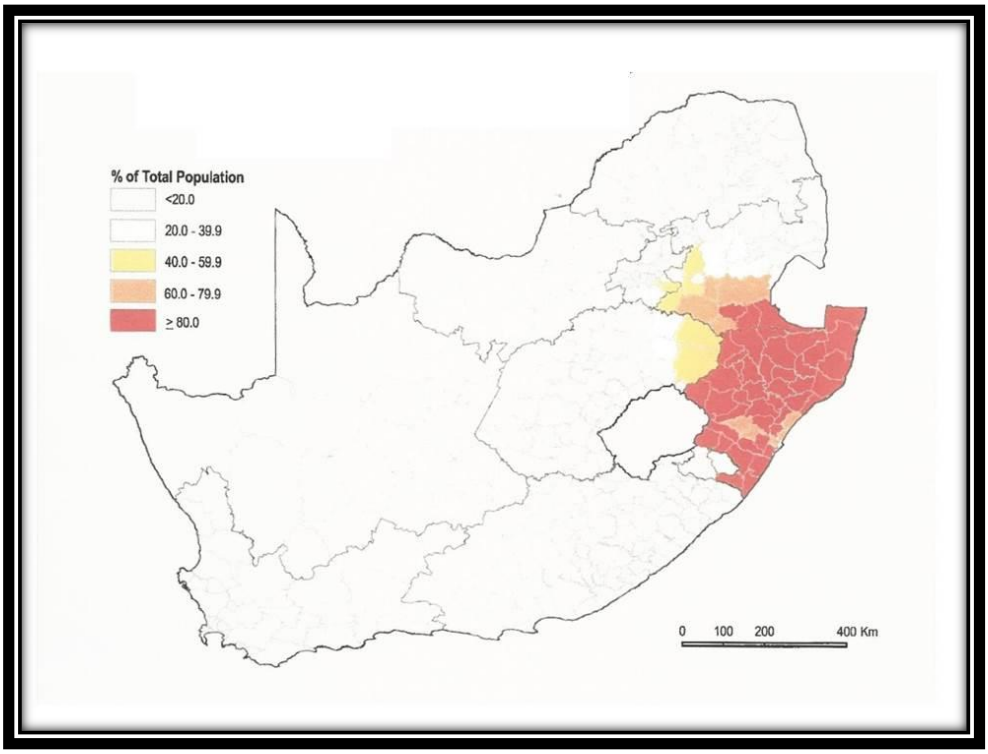

Figure 1.2 Geographical distribution of isiZulu spoken throughout South Africa (as depicted by van der Merwe, IJ & van der Merwe, JH in the Linguistic Atlas of South Africa, 2001 (van der Merwe & van der Merwe, 2006).

There is an historical dimension to language that is also relevant. During the apartheid era, when English and Afrikaans were the only two official languages and consequently languages of instruction, "minority" or "ethnic" African languages were not regarded as academic languages and their usage in higher education was not actively encouraged. The fact that during this time the majority of students at higher education institutions in South Africa were white meant that there were relatively few graduates whose mother tongue was an African language.

The situation has not changed much over the years. For example, in KZN, a province where isiZulu is the mother tongue of 78% of the population, only 20% of current medical graduates are first language isiZulu speakers (Matthews, 2013). In a study based in the Western Cape, Levin (2006a) found that only 6% of consultations were conducted (either partially or entirely) in the patient's home language, and that further, in 79% of language discordant consultations, no interpreter was used. Studies in other areas of South Africa reflect similar language disparities. For example, in a study undertaken at Chris Hani-Baragwanath Hospital, Gauteng, it was shown that at any one time, up to 87 different languages were being spoken (Saohatse, 2000). Furthermore, differences in pronunciation, stress, intonation and ways of structuring the language may result in further mis-communications despite the same language system being used. These statistics indicate the diverse nature of language interactions in health care institutions and underscore the importance of addressing language as a factor in health care management.

The frequent need for interpreted consultations presents a challenge to the health care system, over and above those already identified earlier in this chapter. Limited financial resources inhibit the ability to employ trained interpreters in all hospitals and in addition, limited training opportunities exist to train HCPs and interpreters to work together. In some instances, family members or assistant medical personnel may assist as interpreters. Alternatively, HCPs and patients may resort to using a combination of languages and non-verbal gestures, in order to make themselves understood. Further discussion of language issues and how communication takes place within the consultations in the South African context will be addressed in Chapter 3 of this thesis.

1.4.3.2 Culture

Recent research has begun to look at the influence of culture within healthcare. Public health specialists (Braithwaite, Taylor, & Treadwell, 2009), psychologists (Roter & Hall, 2006), communication researchers (Geist-Martin, Sharf, & Ray, 2003; Penn et al., 2011) and health practitioners (Nelson, Smedley, & Stith, 2002) have all looked at the role cultural issues play in health care delivery. As far back as 1871, culture was defined as "that complex whole which includes knowledge, beliefs, art, morals, law, customs and any other capabilities and habits acquired by man as a member of society" (Tylor, 1871). Since then, research has identified numerous factors particular to cultural beliefs that may affect health care. These will be discussed in more detail in Chapters 2 and 3. However, as Napier et al. (2014) conclude, the need to understand this relationship between culture and health and the factors that improve health care in more detail is crucial.

A social constructionist approach views the way in which people identify their culture as building the realty of how they view the world, how they experience it emotionally and how they behave in relation to other people and the environment (Helman, 2007). It will also determine how they view their health care, how they perceive aspects of care such as the aetiology of their disease, the importance they place on adherence and the way in which they interpret the signs and symptoms associated with their illness. Such cultural determinants in health have been seen as barriers to care. The limitation of informed choice for females in some cultures has shown to influence access to antenatal care (Dormandy, Michie, Hooper, & Marteau, 2005) and a cultural perception of health care being curative rather than preventative was also seen to influence the "late" antenatal visits made by Nigerian women (Ebeigbe & Igberase, 2010). A person's culture is not necessarily static and may be a patchwork of various beliefs, influences and experiences over time. These ideas may be difficult to define and not always explicitly expressed. People may choose to identify with specific aspects of a group with whom they identify. This tends towards a constructionist paradigm where there is no checklist of stereotypical characteristics pertaining to any specific culture but rather the complexity of ideas, fears, expectations and beliefs that a patient brings to a consultation and that makes interpretation of preferences, expectations and communication styles specific to the individual and not to the group as a whole.

The idea of a "melting pot" of cultures is often used to refer to the blending and assimilation of different cultures within a multi-cultural environment. The way in which immigrants acculturate themselves into a host culture has been described by (Berry, 1987) as following one of four different paths: integration (maintaining values of own and "other" culture), assimilation (abandoning own culture in favour of the host culture), marginalisation (loss of contact with own and host cultures) and separation (maintenance of own cultural identity with no interest in the host culture). However, the constructionist view of culture is that individuals define for themselves the language, religious, cultural

and ethnic affiliations they prefer and the extent to which these are integrated or not (Nagel, 1994). Recognising that cultural definitions are fluid and that people may not necessarily equate their racial or ethnic identity with a cultural group, some cultural beliefs relevant to this study are highlighted.

The African concept of Ubuntu, commonly translated as "a person is a person through other people" explains the idea of how people share a common humanity and loyalty towards each other (Tjale & De Villiers, 2004). Part of the humanism of Ubuntu includes treating people with empathy, consideration, patience and kindness and attending to their holistic physical, emotional, social and spiritual needs (Prinsloo, 1998). People see themselves in harmony with the natural world and an illness is viewed as creating disequilibrium between physical and spiritual forces (Turner et al., 2015). As a member of a society, an illness that affects one individual, will in turn affect all members of the family and wider community.

Respect for another, especially elder or senior members of society, is another important aspect of African culture. The isiZulu word "*hlonipha*" meaning respect is noted in many aspects of social life. Elderly people are highly respected within the community due to their knowledge and experience (Tjale & De Villiers, 2004) and various customs would be associated with communication with such people. In traditional societies, a senior person would greet a more junior or younger member of society; direct eye contact with a more senior person would be considered disrespectful and a soft tone of voice and lower station of seating would be employed in order to demonstrate respect for the elder (Turner et al., 2015).

African doctors remain a scarcity in public hospitals with African doctors still in the minority of all medical graduates (Coovadia et al., 2009). Medical schools have been encouraged to change their admission policies to include students from all races and geographic locations and bursary schemes are offered to encourage return to rural practice (de Vries & Reid, 2008; Ross, 2007), yet these students still face tremendous challenges resulting in poor throughput to practice (Diab, Flack, Mabuza, & Reid, 2012). The implications are that African patients are often given no choice but to see a doctor who does not share their own cultural or racial identity.

While it may be more common for Indian patients to have access to an Indian doctor, there are still multiple contextual issues that complicate this overtly congruent relationship. Recent census figures show that in general, "Indians" comprise 2.5% of the South African population. However, within the province of KZN, the Indian population of just over 750,000 accounts for 7.4% of the total KZN population (Statistics South Africa, 2012). People from the Indian subcontinent first arrived in the former province of Natal in 1860 as indentured labourers to work on the sugar cane farms in the province. They were a diverse group of mixed castes and backgrounds but the value they saw in western education provided the impetus for their successful improvement of their socio-economic status from farm labourers to professionals and a change from 75% being rural-dwellers in 1904 to only 6% in 1991 (Landy, Maharaj, & Mainet-Valleix, 2004; Naidoo & Mahabeer, 2006). With the rise in professionalism amongst this ethnic group, a new type of caste system has developed, with some people defining themselves by their professional identity. Their origin of mixed cultural and ethnic origins from various castes and classes has resulted in numerous nomenclatures being used to describe this group of people (Landy et al., 2004). Generally "people of Indian origin" is preferred but sometimes the term "Asian" is also used as well as references to their geographic (north or south Indian), religious (Hindu, Muslim, Christian) or language (Hindi, Tamil, Gujarathi) affiliations (Lal & Vahed, 2013; Landy et al., 2004).

Although both Indian and white or European persons would be considered as immigrants into the host African culture of South Africa, the South African health care system follows a "Western" or European health care model and thus African persons may find themselves as immigrants into this European model. The way in which Indian South Africans have blended their own cultural beliefs with certain aspects of western culture, may well explain the success of this population within KZN (Naidoo & Mahabeer, 2006). In their study of attitudes towards acculturation and integration of university students of Indian and African ethno-cultural origins, Naidoo and Mahabeer (2006) found that although both groups of students retained the majority (79-93%) of work and social interactions within their own ethno-cultural groups, the language and cultural practices of these students was markedly different. 98% of Indian-origin students spoke English as a home language (in 1951 only 6% spoke English at home), whereas only 1.6% of African-origin students used English as a home language. In integrating their own culture with that of European culture, 69% of Indian-origin students were found not to be able to speak any Indian language and 70% reported a mix of cultural practices in their own homes. In contrast, 94% of African-origin students spoke an African language at home and only 49% reported a mix of cultural practices at home (Naidoo & Mahabeer, 2006). Although these figures may have changed in the last decade, they still indicate a marked difference in practices amongst the different cultures within South Africa.

A discussion of what drives people to identify with a particular culture, ethnicity, language or religious belief is beyond the scope of this study. However, all these factors remain vital composites of the person who presents as a patient or doctor within the consultation. These characteristics, beliefs and personal life-world provide a complex scenario that is super-imposed on the consultation as it occurs within the health care system.

1.4.4 The Researcher

The researcher forms an integral part of the research process and interpretation of findings in qualitative research (Flick, 2006, pp. 114-115). It is for this reason that the perspective of the researcher is divulged upfront. The researcher in this study could be considered both as an insider and outsider. An "insider" has core knowledge of the subject she is researching and is able to identify with the participants as being one of them whereas an "outsider" has the advantage of viewing the situation from an external and more objective standpoint (Robson, 2002).

As an insider, the researcher, as a medical doctor, has a detailed knowledge of the expected outcomes of any doctor patient communication. In essence, the doctor should facilitate that a patient understands the cause or nature of her disease. Additionally, they should understand the medications prescribed and how to prevent worsening of any symptoms.

As an insider to medical-communication, the researcher's undergraduate training is in clinical medicine and she has over ten years' experience in the field of communicating with people who suffer with diabetes. The researcher has a keen understanding of the biomedical context of diabetes as a disease including the management protocols and the emphasis on adherence in order to achieve good clinical outcomes. In addition, she has experience in the field and a passion for the subject. Throughout years of clinical practice, it has become obvious that diabetes management at its optimum certainly requires collaboration amongst health care professionals and constant adjustment of management plans in order to achieve the targets set for glycaemic control and risk reduction. As a chronic disease, the diagnosis of diabetes implies a life-long journey within the health care system. It is through these

journeys with patients that the researcher has become aware of the influence of a strong therapeutic relationship as an important component of disease management.

This insider status is strengthened by the researcher having specialised as a Family Physician which values a notion of consultations being patient-centred (McWhinney, 1997). This concept of patient-centeredness will be further discussed in Section 3.2 and forms the basis of the communication curricula such as the Calgary-Cambridge Communication Guide (CCCG) which is discussed in Section 3.3. Within the field of diabetes research, in a developed world scenario, the idea of the patient as the team leader has been proposed in support of the patient-centred approach to chronic disease management (Prins, 2013). This model relies on a strong doctor-patient relationship where the doctor is able to share knowledge with the patient and support the patient in his/her decision-making, target-setting and management goals and in doing so, construct the reality of the consultation together. Such an idea may not be readily transferable to a developing world context where the doctor and patient may share differing views on the causality of diabetes. In addition, such an idea may not be effective if a patient does not traditionally become involved with decision making around management. As an example, in Zulu culture, a patient would tend to expect to be told what to do rather than negotiate a care plan.

As a researcher-insider, the principle of Family Medicine that the doctor is a member of the community that he / she serves is also worth considering in this research (McWhinney, 1997). The researcher has spent time as a member of the community at both the selected study sites (urban and rural) and thus has in-depth knowledge and lived experiences of the study sites. Family Medicine is based within the community and acknowledges the external influences which can affect the health of the population.

With personal experience of working in a rural hospital for a decade and additional work in urban hospitals, the researcher has an in-depth knowledge of the challenges and limitations of the health care system and the patients and doctors who access and serve within the system respectively. Reflections on these challenges over the years led to an interest in understanding how they influence human behaviour. Having studied both isiZulu and isiXhosa at secondary and tertiary education levels respectively, the researcher also has good second-language fluency in these Nguni[4] languages. Whilst living in a rural area, the researcher was accustomed to speaking isiZulu regularly with her patients and experienced first-hand the importance of such behaviour. This ability not only prompted the investigation detailed in the study but also aided the analysis of the transcripts. Adolphs, Carter, Crawford & Sahota (2004) commented on the predominance of health care communication research being performed by health care “outsiders” rather than “insiders” and the need for better integration between theoretical research findings and clinical practice. Experience in the field revealed to the researcher the conflict between communication skills she had been taught as a student and the reality in which she was working. Rural patients tended to enjoy the personal attention to details and were less concerned with time as a constraint. The custom of seeking medical care as a means to receiving information and advice from a respected, trained professional was observed rather than the more Westernised notion of shared decision-making. These conflicts created an uncertainty in the researcher and a desire to explore the phenomena in more detail.

[4] The cluster of African languages spoken in South Africa that share similar vocabulary and grammar structure to which isiZulu and isiXhosa belong.

At the time of this research, the researcher was based at the UKZN and involved with teaching communication skills to students. Initially, the curriculum was designed so as to teach these skills in English according to the CCCG. But the reality of the context in which the students work is that many patients do not share English as a home language and as such, consultations needed to take place in isiZulu. This provided part of the context of the research question as to whether such skills could still be relevant when transposed into a different language within a culture foreign to that of the Westernised culture in which the guide was developed. Teaching students has also enabled the researcher to understand the challenges that students face in cross-lingual communication and the beliefs and prejudices that underlie behaviour (Matthews & Diab, 2016). Other considerations that became relevant in teaching students was the curriculum need for a structured format to the consultation that could facilitate grading in examinations and the usage of checklists of behaviours that could be scored. In using such "one size fits all" checklists and having to assign marks for "right" and "wrong" behaviours, the researcher became uncomfortable with these methods and felt there was some degree of disharmony between the requirements of the curriculum and the interplay of individuals within different contexts.

Thus as a medical doctor with a sound understanding of the value of communication and language, and experiential background in the field, the researcher is well-positioned to comment on the phenomena observed and provides a unique perspective as a health care "insider". However, the researcher could also be considered as an outsider. She has a different demographic and economic profile to the patients. In addition, she holds professional status as a doctor, lecturer and researcher.

1.5 Structure of the Dissertation

Chapter 1 provides the background and context to the study, highlighting contextual issues relevant to the study such as communication within the nature of the health care system in South Africa, the quadruple burden of disease and the social setting as described by aspects such as poverty, social status, language and culture. The rationale for the study is presented and the broad aim of the study defined as exploring the role of communication within interpersonal relationships between doctors and patients within the unique sociocultural environment in which they occur and the intention to use this knowledge to contribute to the management of a chronic disease of lifestyle such as diabetes. The researcher as both an insider and outsider was described.

An overview of Diabetes Mellitus Type 2 as a chronic disease of lifestyle is given in Chapter 2. The state of diabetes, both globally and within South Africa, is outlined. The nature of the disease and the management thereof will be described. The clinical goals of diabetes management in achieving adherence, subduing risk factors, minimising complications and improving health outcomes will also be addressed leading to a clear rationale for using diabetes as a focus for examining the relationships between doctors and patients.

The central place of the doctor-patient relationship in the management of a chronic disease such as diabetes leads naturally to a discussion of the role of communication. Chapter 3 explores previous research in the field and seeks to identify a suitable methodological approach to investigating the topic. The consultation provides the basis from where relationships in healthcare are established and

thus becomes the focus of attention. Finally, the way in which communication is taught within medical schools is examined in order to be able to understand clinical practice.

Chapter 4 describes the research design, the research setting and the data collection methods employed in this study. These will emerge from a discussion in previous chapters of the benefits and limitations of prior research in diabetes and in health communication. The unique focus on interactional analysis will be highlighted and explained and the strength of the study in the way it combined methodological tools to validate findings will be discussed.

Study results are reported in two chapters. Chapter 5 presents the results obtained from the doctor-patient consultations at the two sites and Chapter 6 presents the results obtained from focus groups and interviews with doctors. These chapters highlight the strength of the methodology in combining different perspectives and observations in order to interpret the results of the study. The findings from the consultations are presented both in terms of the content of the consultations as well as the process of how the content was communicated as described in Chapter 3. An analytical approach to analysing the interactions will identify recurrent patterns of behaviour and the resultant outcomes that these behaviours tend to have. Individual interactions are compared and contrasted in order to draw meaning from the interactions within the specific socio-cultural context in which they occur. Doctors' and patients' views of their interactions are presented in Chapter 6 with special attention paid to the way in which adherence is viewed as well as interpersonal relationships and relations within the healthcare system itself and how these compare with observational findings in Chapter 5.

In Chapter 7, the analysis of the results draws from both the former chapters and presents a co-ordinated set of findings and conclusions. These will be discussed on a practical level as they contribute to the understanding of doctor-patient interactions, communicative techniques and diabetes management and the relevance to scientific research in terms of best practice models in communication. Finally, a critical examination of the methodological and theoretical approach will be discussed.

The final chapter, Chapter 8, presents a summary of findings and implications. It makes recommendations for future practice, medical education and research and ties up the findings of the study highlighting the valuable contribution made by this study to the fields of diabetes and chronic disease management, health communication and medical education.

1.6 Concluding remarks

The purpose of this study, with a focus on doctor-patient communication, was thus to provide a link between the fields of health communication and clinical practice – to bridge the gap between the science and the art of medicine. The study specifically aimed to describe the communication as a professional relationship between doctor and patient which forms the basis of consultation as well as the various background factors that form the contextual environment of the consultation. Although this study is set within the unique context of South Africa, consultations in any situation involve two people who begin as strangers and come together to share a common goal. Each of these individuals emanates from a specific context which may well influence her own behaviour or the way she interprets the behaviour of another.

South Africa provides a rich environment in which to study communication. It has eleven official languages and a multiplicity of cultures, languages, demographics and ethnicities. This complexity and relationships between many differing people provides a unique and fascinating blend of social, economic and cultural factors which form a background against which the health system operates. Within the health system itself, various different factors come into play including the disease burden, financial and human resources available. Once this contextual environment is made explicit, the relationship between clinical practice and the art of communication within interpersonal relationships can be explored in more detail.

In the following chapters, the management of diabetes will be explored in more detail as well as the role of health communication in general. By placing the disease within a contextual environment and reflecting upon the observed behaviours, this study hopes to augment clinical practice, guide necessary further research and inform medical educators with the ultimate goal of improving the health of the community.

CHAPTER 2: UNDERSTANDING THE CONTEXT OF DIABETES

2.1 Introduction

This thesis crosses between two worlds that have previously not been very closely related. These relationships are depicted in Figure 2.1 below. On the one hand is the clinical field of diabetes that has been almost exclusively studied by clinicians from a clinical or biomedical perspective. On the other, is the field of health communication that has been studied by researchers with backgrounds as diverse as psychology, sociology and anthropology (Di Blasi et al., 2001). The players on this stage are the doctor, an expert in disease management who forms part of the healthcare system and the patient, an expert in disease experience, who exists within a social world. The methods of approaching these two fields has differed and will be explained and contrasted in the following chapters. Traditionally, clinical practice has drawn patients into the world of the healthcare system and paid very little attention, if any to the socio-cultural context from where the patient comes. This thesis has as one of its aims, the idea of drawing doctors and the medical system into the world of health communication through health communication research. It is the sentiment of the researcher that by joining these two fields and relating research across the interpersonal-clinical divide that important lessons may be learnt in both fields of research. In addition, by drawing these two world together, important lessons may be learnt not only for clinical practice but also for future training and medical education. However, an immediate consequence of this approach is that the methods used may be unfamiliar territory in one or other field and as such, attention to absolute detail in the research may not be possible.

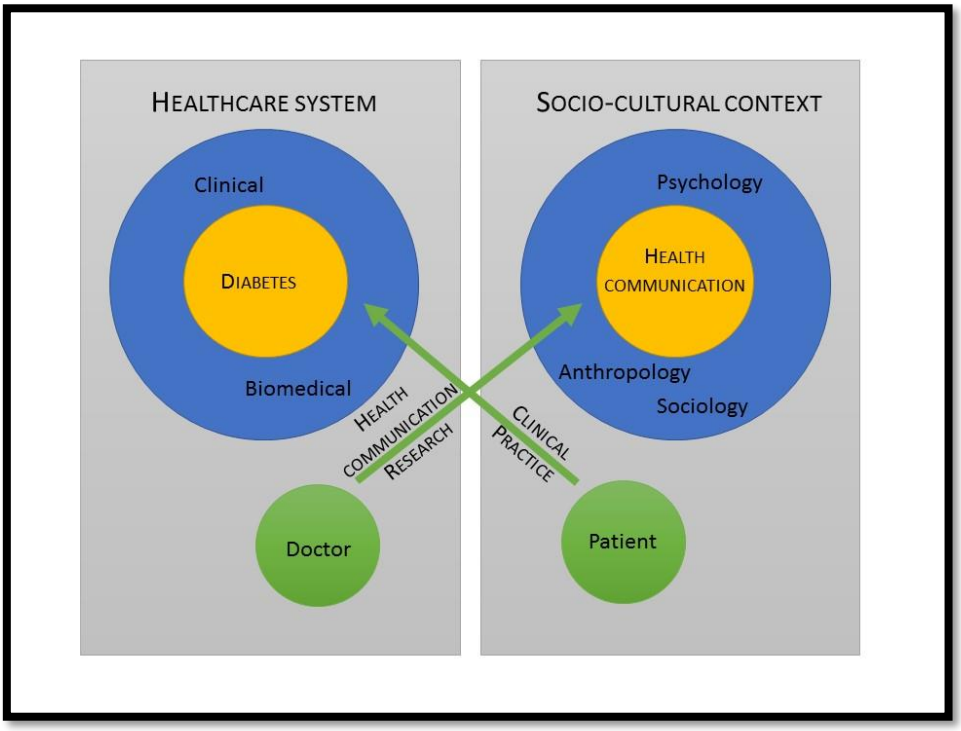

Figure 2.1 Model depicting the merging of the fields of diabetes and health communication

This chapter will explore the field of diabetes – the impact it has as a clinical disease both internationally and in South Africa as well as how it is managed and what advances in management have been suggested within the context of CLDs. Lifestyle modification and risk reduction have been promoted as important aspects to the management of CLDs, in combination with oral or injectable therapy and regular blood glucose monitoring. These lifestyle adaptations hint towards the need to view diabetes within the broader socio-economic circumstances in which it occurs and is managed. The model in Figure 2.2 gives a brief overview of the complexity of diabetes management that will be discussed below. It indicates the various aetiological factors, the co-morbidities associated with diabetes and the key factors of management that aim to reduce risk factors to developing multiple organ complications. Each of these components is discussed below in order to create the background upon which diabetes can be studied.

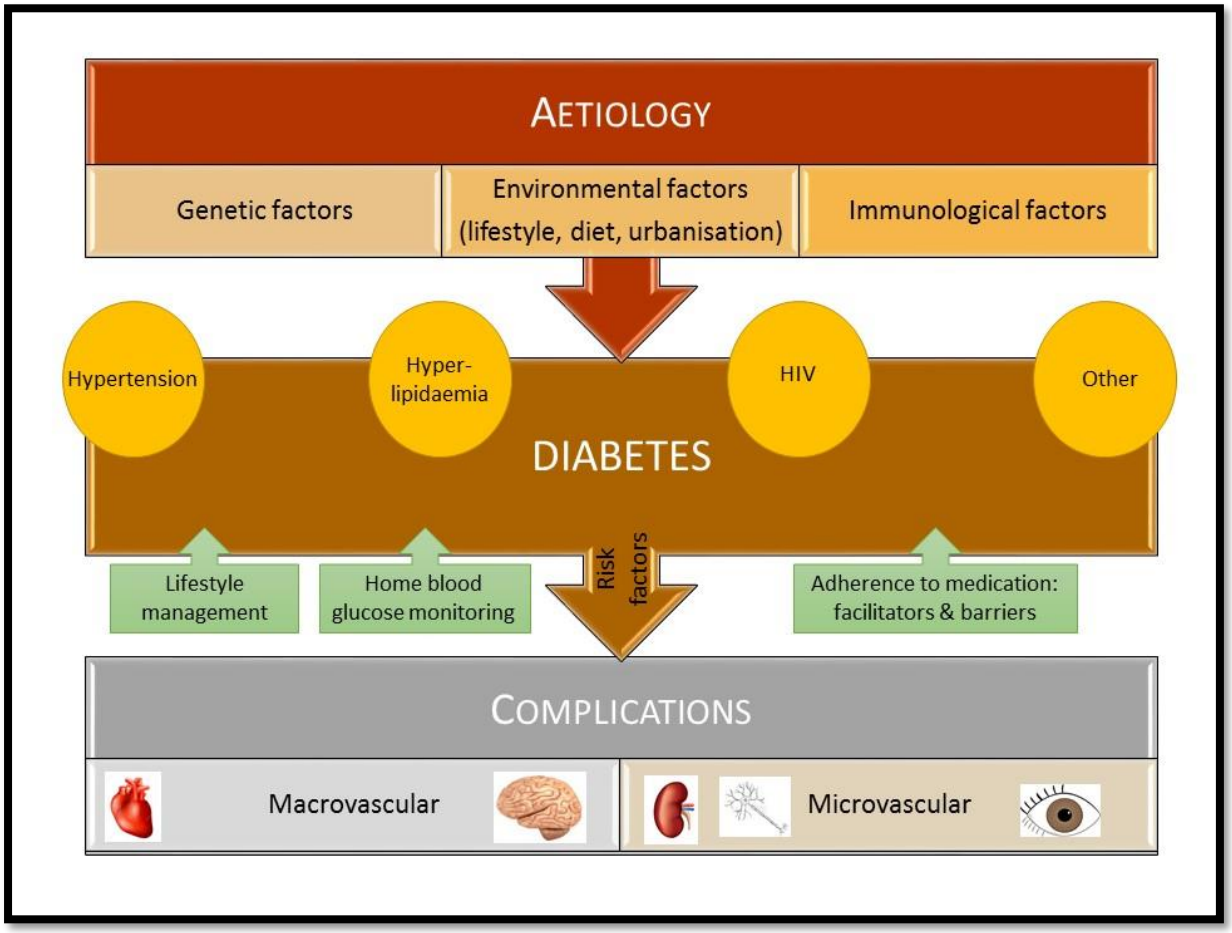

Figure 2.2 Model depicting the complexity of diabetes management

In order to contextualise the problems associated with diabetes management, some factors that influence adherence will be discussed. In addition, the socio-economic contexts are interrogated in order to guide and inform the study design and interpretation of the results. Finally, the ability to translate adherence into health outcomes is explored highlighting gaps in current knowledge that may begin to inform a particular niche for this study in creating new knowledge for an old problem.

2.2 State of Diabetes

2.2.1 Global Status

It has been estimated that almost 6% of the world's population is affected by Diabetes Mellitus (Adeghate, Schattner & Dunn, 2006) and that this number would reach 300 million by 2025 (International Diabetes Federation, 2001). However, the number had already reached 366 million in 2012, and new estimates have been increased to 552 million people worldwide living with diabetes by 2030.

Genetic and environmental factors have been implicated in the aetiology of diabetes as depicted in Figure 2.2, but it is the changing lifestyles and urbanisation of populations that is exacerbating the epidemic, especially in developing countries (Green, Hirsch & Pramming, 2003). A report on the global prevalence of diabetes estimates that the prevalence in developing countries will double during the period 2000-2030 (Wild, Roglic, Green, Sicree & King, 2004). Growth and aging of the population as well as trends towards unhealthy diets, obesity and sedentary life-styles are expected to be the main contributors towards the problem (Green et al., 2003). High fasting plasma glucose levels, elevated blood pressure and total cholesterol levels, as well as a high body mass index have all been shown to independently increase the risk of developing diabetes (Lim et al., 2012). The same study showed a 58% change in global fasting plasma glucose levels between 1990 and 2010, indicating the significance of this individual risk factor in the development of chronic disease. High body mass index has also increased substantially (82%) in this same time period and is now the leading risk factor in Australasia and Latin America. Although the risks associated with poverty are still the predominant risk in sub-Saharan Africa, physiological risk factors associated with diabetes and other lifestyle diseases are increasing (Lim et al., 2012). It is evidence such as this that has influenced HCPs behaviour in concentrating on these clinical parameters in the prevention and management of diabetes.

2.2.2 State of Diabetes in South Africa

It may be regarded as a paradox that in a developing country, that communicable diseases such as HIV/AIDS, pneumonia and diarrhoea, influenced by the burden of poverty and malnutrition, find themselves competing for dominance with CLDs such as hypertension and diabetes. Yet, these previous “diseases of affluence” are now being reported more often in poorer socio-economic groups (Ataguba, Akazili & McIntyre, 2011). A recent report published in the Lancet on the burden of NCDs in South Africa describes the rise of NCDs in both rural and urban areas and notes the disproportionately high prevalence in the urban poor (Mayosi et al., 2009). The burden and costs of chronic disease in low-income countries is expected to rise even higher if this trend is not adequately managed (Abegunde, Mathers, Adam, Ortegon & Strong, 2007). The World Health Organisation (2008) suggests that 28% of the total burden of disease is attributable to NCDs and that diabetes mellitus is one of the most common of these. These sentiments are supported by Schneider, Bradshaw, Steyn, Norman & Laubscher (2009), where 39% and 33% of premature mortality in rich and poor districts respectively in South Africa was found to be attributed to NCDs. They concluded that unless comprehensive health promotion strategies are implemented, the epidemic of chronic disease in South Africa will have a serious effect on socio-economic development.

Demographic variations with regard to the prevlance of diabetes has been reported to vary from 3.0% in urban white South Africans to as high as 13.0% in urban Indian populations (Rheeder, 2006). It was reported that 5.5% of all South Africans over the age of 30 had diabetes and that this number increased with age and contributed to 4.3% of all deaths in South Africa in 2000 (Bradshaw, Norman, Pieterse & Levitt, 2007). More recently, this figure has been revised to a prevalence of 9.0% in those over the age of 30 indicating that the epidemic is indeed on the rise in South Africa as it is globally (Bertram, Jaswal, Van Wyk, Levitt & Hofman, 2013). Provincial variations in prevalence and mortality statistics may be related to the genetic component in the aetiology of diabetes as well as inconsistent methodologies in gathering the data. KZN, the province in which this study was conducted, demonstrated the highest mortality rate of all provinces due to diabetes and diabetes was placed within the top ten causes of premature mortality as measured by years of life lost. Complications such as stroke and ischaemic heart disease as well as co-morbidities such as hypertension were classified separately (Bradshaw et al., 2007).

Impaired glucose tolerance (IGT), seen as a precursor to diabetes, is known to have a higher prevalence than diabetes itself, suggesting that the epidemic is certainly on the rise. A study by Erasmus et al. (2001) noted the age-adjusted prevalence of diabetes and IGT amongst factory workers in South Africa to be 4.5% and 5.1% respectively and that 22.2% of all subjects with diabetes were found to be obese. These high rates of IGT, indicating the early stages of a diabetes epidemic, were described in a review of the epidemiology of diabetes in Africa (Motala, Omar & Pirie, 2003). An audit of public sector primary diabetes care in Cape Town showed that 90% of patients reviewed were non-insulin dependant with a mean duration of diabetes of eight years and that fewer that half (49.4%) of patients had acceptable glycaemic control (Levitt, Bradshaw, Zwarenstein, Bawa & Maphumolo, 1997). Macro- and microvascular complications were common.

If South Africa is to respond to the challenge of chronic disease adequately, issues such as community education and prevention through advocacy and awareness need to be addressed (Azevedo & Alla, 2008). Being able to empower people to take control over self-management and lifestyle modification of their disease by establishing a relationship between HCP and patient also plays a key role in successfully meeting the challenge of chronic disease management.

2.3 Diabetes, the Disease

Diabetes is a metabolic disease which interferes with the way in which glucose, derived from carbohydrates, is utilised and stored within the human body. Glucose is a necessary fuel in the body for all cellular function and thus is vital to sustain life. A lack of glucose will result in cells not being able to perform at peak function and eventually cellular death may occur. In regular metabolism, all carbohydrates ingested are broken down in the simplest form of fuel referred to as glucose. The function of the pancreas is to regulate the secretion of hormones insulin and glucagon in response to high or low glucose levels, in order that cells may either take up the glucose if needed, or that the glucose is stored in the liver if excess is available. Thus, blood glucose levels remain constant, cellular function is optimised and adequate storage is available if needed. In type 2 diabetes, the way in which the cells respond to the secretion of insulin becomes abnormal and cells are unable to respond – a term known as “insulin resistance” (Steyn et al., 2006). This results in low cellular levels of glucose, increased blood glucose levels and sub-optimal body functioning. Eventually, pancreatic function also becomes compromised and cells regulating the secretion of insulin and glucagon become dysfunctional. It is at this stage that persons with type 2, insulin-resistant diabetes may require additional medication in the form of insulin injections.

2.3.1 Diabetes as a Chronic Disease of Lifestyle

The term “lifestyle” refers to the aetiology and management of the disease in that various lifestyle factors may contribute to an individual developing diabetes and may also be used in treating and controlling the disease once it has been diagnosed. Although the exact aetiology of diabetes is not fully established, many theories suggest it may be as a result of accumulated exposure to trauma, viral illness, biological or psychosocial stressors and/or inherent genetic factors and exacerbated by poor diet and physical inactivity (Adeghate et al., 2006). A combination of one or more of these factors may or may not result in the individual developing diabetes. Since the manner in which the body’s fuel (glucose) is regulated is affected, an individual with diabetes needs to rely on the fuels consumed

(diet) and the fuels expended (physical activity) as important factors in ensuring homeostasis. It has also been suggested that a diet rich in carbohydrates and lack of physical exercise in the context of other genetic risk factors may indeed contribute to an individual developing diabetes.

The management of a chronic disease such as diabetes mellitus involves a complex mix of education, lifestyle adjustments, risk factor reduction, optimisation of medical and injectable therapy and lifelong adherence to these changes. Two landmark trials, United Kingdom Prospective Diabetes Study (UKPDS Study Group, 1998) and Diabetes Control and Complications Trial (DCCT), (American Diabetes Association, 1993) provided much information about the importance of effective glycaemic control, insulin initiation, adherence to therapy and intensification of treatment in order to improve the morbidity and mortality related to diabetes mellitus. Recent SEMDSA guidelines for the Management of type 2 Diabetes published in 2012 (Amod et al., 2012) specify for the first time, the importance of individualising treatment goals and targets for various patients. This individual approach to management relies on a trusting relationship between healthcare provider and patient which has been shown to be established through the art of communication (Delamater, 2006; Von Korff, Gruman, Schaefer, Curry & Wagner, 1997). These guidelines support the ultimate clinical goals of diabetes management to diminish morbidity and mortality, reduce economic cost from the disease and reduce related complications so as to improve productivity and quality of life.

Other CLDs are frequently associated with diabetes as depicted in Figure 2.2. These include diseases such as hypertension and hyperlipidaemia characterised by raised blood pressure and raised lipid (fat) levels respectively. The aetiology of these diseases is sometimes shared with diabetes in that poor dietary choices and lack of physical exercise can also be causal factors in their development. Another commonality is the additional risk posed by these diseases on adverse complications such as cardiovascular disease. All of these factors imply that diabetes cannot be managed in isolation or with a single treatment option. Controlling the disease and preventing further progression and complications from occurring means addressing lifestyle modification, various forms of treatment and management of co-morbid diseases in a multi-professional team environment (Distiller, Brown, Joffe & Kramer, 2010).

2.3.2 Management of Diabetes

Diabetes management includes a multitude of tasks which need to be concurrently managed as depicted in Figure 2.2. Firstly, the idea of risk reduction pays attention to co-morbid risk factors and clinical indicators that may increase the likelihood of developing complications of diabetes. Secondly, it requires careful lifestyle adaptation including attention to activity and eating habits as well as home monitoring of blood glucose levels in order to maintain the correct balance. And finally, adherence to and regular revision of prescribed medication is required to make allowances for changes in the disease itself as well as lifestyle practices.

2.3.2.1 Risk Reduction

Long-term control achieved in diabetes management is key in terms of risk reduction and the prevention of complications. The Society for Endocrinology, Metabolism and Diabetes of South Africa (SEMDSA) guidelines suggest a target glycosylated haemoglobin (HbA1c)[5] of <7.0% for the majority of patients in order to minimise the risk of diabetes complications (Amod et al., 2012). Landmark studies, such as the UK-PDS (1998) and DCCT (1993), have shown conclusively that good glycaemic control, adaptation to lifestyle advice and modification and adherence to medication are important issues to address in terms of risk factor reduction and the prevention of complications from diabetes and hence diabetes-related morbidity and mortality. Further research stemming from these trials has further indicated the added benefit of introducing insulin at an early stage in order to reduce subsequent complications (termed the "Legacy effect") as well as the concept of "metabolic memory" whereby early and sustained glycaemic control has been shown to have long term benefit in complication reduction (Ranjit Unnikrishnan, Anjana & Mohan, 2011). However, despite this clinical knowledge, fewer than half of patients achieve glycaemic targets despite an extensive range of available and effective treatments (Bailey & Kodack, 2011).

Regular monitoring and follow-up with a diabetic specialist have been shown to have a beneficial effect in terms of long-term prevention of complications, including the macro- and micro-vascular complications affecting organs such as kidney, brain, heart, eyes, feet and blood vessels (Levitt, 2012). This clinical management of various parameters outlines the goals of doctors in managing the disease. More recently, the focus of diabetes managements has been on individualising goals for patients based on specific risk factors and adopting a more patient-centered focus to goal-setting (Amod et al., 2012; Huang, Gorawara-Bhat & Chin, 2005). Preliminary studies indicate that patients have responded favourably to an individualised medication plan depicting future potential changes (Huang et al., 2005), although this requires a solid relationship between HCP and patient.

The reason for risk factor reduction is not just to reduce morbididy and mortality from the patient's perspective but also from that of the health care industry. Recent studies have displayed substantial costs to the health care system in treating the complications of diabetes (Ward, Alvarez, Vo & Martin, 2014). Despite this knowledge and high level of scientific research, disease outcomes are still not optimal. Therefore, it is an objective of this study to explore and contextualise various communication techniques as they develop within the consultation with the aim of enhancing the scientific knowledge and practice of diabetes.

2.3.2.2 Lifestyle Management in Diabetes

Lifestyle issues such as diet and activity are important in the management of this chronic diease as they are key factors in the establishment of the disease itself. The consequences of such lifestyle modifications have been shown to have beneficial effects on disease morbidity and mortality (Look

[5] *HbA1c* ***(Haemoglobin A1c / Glycosylated haemoglobin) – blood test performed at a laboratory as a marker of the average glucose concentration in the blood over the previous three months***

AHEAD Research Group, 2006). Guidelines suggest modifications to food intake that consist of a reduction in carbohydrate foods and an increase of fresh vegetables with moderate protein (Amod et al., 2012). Carbohydrate-rich foods are generally cheaper sources of food and form the basis of most diets. Certainly, within South Africa, rural populations rely heavily on maize and corn-based carbohydrate-rich staple foods. Cheaper sources of protein are not widely advertised and promoted and provision of fresh vegetables relies on access to retail outlets or available arable land that can be cultivated at home.

Physical activity guidelines relating to diabetes management advocate regular moderate aerobic exercise in order to improve cardiovascular fitness (Amod et al., 2012). Typical examples are listed as brisk walking, swimming and cycling which are poorly compatible with rural living and in some instances require financial resources out of reach of poorer patients. HCPs find it difficult to adapt these suggestions to activities that may be relevant to their patients. Cultural barriers may also limit the uptake of physical activity in some populations.

Underpinning the adjustment of all these factors lies regular self monitoring of blood glucose levels (SMBG) in order to make the necessary adjustments and compensations in daily life. Regular day–to-day testing, as well as monitoring the quantity and type of food intake and activity levels, are key to establishing trends in diabetes control and informing management decisions. Furthermore, patients need to learn the effects of various foods as well as monitor the effects of various daily activities on their individual bodies. Martin et al. (2006) showed in their study in 2006 that SMBG was an individual predictor of mortality and that it was associated with a 32% reduction in morbidity and mortality. However, regular SMBG requires the provision of a glucometer[6] and testing strips as well as the ability to read and interpret the results. Although public hospitals do provide such devices and testing equipment, they remain expensive and stock is limited. Interpretation of results relies on the patient's literacy levels and specific knowledge of diabetes management in order to act appropriately on levels tested.

In order to prevent complications, tight glycaemic control needs to be balanced against the risk of hypoglycaemia and extreme interference with day to day life due to glycaemic control that is too tight (Davis, Bruce & Davis, 2006). One study indicated that 76% of patients were scared of hypoglycaemic events. This complication is of particular concern in rural areas where access to health care may be limited and time to care delayed.

It has been shown through analysis of patients' questionnaires that improved patient knowledge, lifestyle advice and regular SMBG are associated with improved adherence to diabetes management (Lerman et al., 2004), education of individual patients in this regard is time-consuming. It also alludes to the integral role that HCPs play in sharing their knowledge of diabetes management with their

[6] ***Glucometer -*** *handheld medical device used to test the glucose concentration of the blood of a person with diabetes. It is an essential tool in home blood glucose monitoring and requires the use of coded test strips upon which a blood sample is placed.*

patients. Thus this study seeks to explore the manner in which this education and knowledge-sharing takes place.

2.4 Adherence to Chronic Care

The ability of a patient to adjust their lifestyle and take medication according to the prescribed management plan is a crucial link in translating clinical knowledge into potential benefits. Originally, the term compliance was used to define the extent to which a patient followed medical instructions (Vermeire, Hearnshaw, Van Royen & Denekens, 2001). However, it was felt that this term did not portray the patient as an active partner in the treatment plan and the preferred term adherence was introduced to indicate a sharing of power in the decision-making process (Martin, 2010). When considering adherence, doctor and patient are encouraged to come to a mutual decision based upon shared knowledge of the disease and a negotiation of risks and benefits. Some more recent studies have included the use of the term "concordance", which focuses attention onto the process of the negotiation between doctor and patient (Weiss & Britten, 2003). Although this study uses the term "adherence" as it most widely used in medical literature, the term "concordance" may be a better description of the co-construction of a management plan.

Guidelines in diabetes management have been developed suggesting strict recommendations for healthy eating (Berg, Young & Grobler, 2012) and regular activity (Heilbrunn, 2012) in order to control blood glucose levels and prevent further complications of diabetes. Regular monitoring of home blood glucose and long term glycaemic control have also been shown to reduce morbidity and mortality from diabetes. The early use of insulin has also been shown to provide effective long and short-term benefits and reduce the risk of complications (Ranjit Unnikrishnan et al., 2011). Despite this convincing clinical evidence, adherence to chronic management plans in diabetes is sub-optimal (Bailey & Kodack, 2011). The following section looks at some of these facilitators and barriers as they have been previously described in the literature.

2.4.1 Facilitators and Barriers to Adherence

From a constructionist point of view, a checklist of facilitators and barriers would not necessarily be expected but they are presented here so as to contextualise prior research and thinking on the subject. For practical purposes, influential factors have been categorised into patient and clinician factors, issues relating to the health system and influences of the disease itself (Refer to Table 2.1 for a summary of this discussion). Methods of data collection and analysis in prior literature are highlighted where relevant in order to inform the design of this particular study

Patient knowledge, attitudes, beliefs and fears were among the key elements found to influence health literacy and in turn, adherence to a management plan. A systematic review of patient knowledge of complications, risk reduction and progression of the disease showed the vital importance of these characteristics to adherence (Nam, Chesla, Stotts, Kroon & Janson, 2011) whilst Fitzner et al. (2008) highlighted the specific benefit of diabetes educators in conveying this knowledge. On the other hand, the use of focus group discussions with patients and doctors highlighted the fear of complications or side effects of medication which were shown to negatively influence adherence (Tan et al., 2011; Wens, Vermeire, Van Royen, Sabbe & Denekens, 2005). A questionaire conducted

amongst patients revealed that the age and gender of a patient may also influence a patient's adherence, although these are obviously non-modifiable factors (Travis, 1997). Review articles have indicated additional patient influences such as poor socio-economic conditions as well as multiple co-morbidities as having negative impacts on adherence (Bailey & Kodack, 2011; Nam et al., 2011) but experience of the researcher has shown that these are not direct causal relationships and patients can defy the barriers of the contexts in which they are in.

Some research has shown the clinician to play a vital role in patient adherence, however, the metodologies employed have varied greatly. Using either questionaires, focus group discussions (FGDs) or a combination of both collection methods in combination with a thematic content analysis, various studies have shown that HCPs who do not have adequate knowledge and experience in the field may be a barrier to good adherence (Ciechanowski, Katon, Russo & Walker, 2001; Haque et al., 2005; Tan et al., 2011). A review of the literature on insulin initiation confirmed similar results although also highlighted the importance of communication between patients and HCPs (Ross, Tildesley & Ashkenas, 2011). On the other hand, the employment of shared knowledge from the multidisciplinary team as shown to positively influence adherence through the sharing of expertise and the re-enforcement of management decisions (Wens et al., 2005) although again, experience has suggested that it is not purely the knowledge and skills of doctors and the team that affect patient care.

Socio-economic factors and the influence of health services have also been shown to be significant factors in adherence to diabetes management in other developing world contexts. Fort et al. (2013) utilised a content analysis of FGDs which showed that family and HCP support to the patient were beneficial to adherence whereas financial concerns, gender roles, power imbalances and ignoring cultural beliefs were seen to have a negative effect on adherence. A study conducted amongst African-American and Latino adults also re-iterated the benefit of support and dedicated patient education in achieving good adherence (Heisler et al., 2009).

Poor accessibility of the health care system has been implicated in poor adherence to chronic disease management plans (Rafique & Shaikh, 2006; Tan et al., 2011). A household survey combined with a narrative case study analysis in South Africa indicates that access to health care is a significant factor in poor adherence to chronic disease in South Africa (Goudge et al., 2009). Long waiting times, lack of continuity of care and lack of time to consult with patients, specifically within the South African health care system have also been shown to pose a barrier to adherence (Ebrahim et al., 2014; Goudge et al., 2009; Haque et al., 2005; Parker et al., 2013). Other authors outside of the South African context have demonstrated similar problems with adherence in relation to lack of continuity of care, lack of consultation time and limited time for education and training (Whitlock, Orleans, Pender & Allan, 2002). The challenges faced by the South African health care system are complex and difficult to address. The need to look beyond these challenges at ways to improve diabetes management is certainly justified.

The chronicity of a disease such as diabetes and the complex management options available are probably the most widely studied factors on adherence. Firstly, with regard to lifestyle modifications, adhering to diet and exercise plans may pose an adherence challenge. These include difficulty maintaining a diet away from home and preferred foods not being included in meal plans (Shultz, Sprague, Branen & Lambeth, 2001). Cultural barriers, specific to the South African context have been identified as relating to the inappropriateness and non-acceptability of dietary recommendations in

some studies (Ebrahim et al., 2014; Nthangeni et al., 2002). Studies have also highlighted the low priority given to physical activity and the cost, time and safety issues linked to regular exercise regimes (Korkiakangas, Alahuhta & Laitinen, 2009; Shultz et al., 2001). Regular testing of blood glucose levels at home has also been shown to be a barrier to good adherence even in situations where resources are available and provider education has been given as to the importance of regular testing (Karter et al., 2010). A number of South African studies have also identified, through patient interviews and FGDs, a lack of knowledge on the role of lifestyle modification as influencing adherence (Kagee, Le Roux & Dick, 2007; Mothiba, Malema & Lekhuleni, 2013; Mshunqane, Stewart & Rothberg, 2012; Muchiri, Gericke & Rheeder, 2012). All these studies highlight barriers to lifestyle management in diabetes but fail to show a direct causal relationship.

Initiation and intensification of medication itself has been shown via the use of FGDs with patients to be viewed in a negative light as patients may perceive the requirement for medication to be due to personal failure rather than a pro-active step in disease management (Chao, Nau & Aikens, 2007; Grant et al., 2011). Complex dosing regimens and scheduling of treatment also pose a barrier to adherence in that patients find it difficult to remember the various changes required (Nam et al., 2011; Tan et al., 2011; Travis, 1997). In addition, management plans perceived to be inconvenient or socially isolating have also been found to be a barrier to adherence (Nam et al., 2011). Surveys and interviews with patients and clinicians have shown that the introduction of insulin provides yet another barrier to adherence (Haque et al., 2005; Peyrot, Rubin, Kruger & Travis, 2010; Vijan et al., 2005). In a study by Karter et al. (2010), 35% of patients were found to believe that insulin causes blindness, renal failure, amputations, heart attacks, strokes, or early death. Patients frequently expressed the desire to work harder on behavioral goals rather than commence insulin. The main reasons for this ranged from a fear of injections, fear of hypoglycaemic events (low glucose levels) and impact on social and working life (Karter et al., 2010; Tan et al., 2011). Patients also admitted to feeling a sense of personal failiure and distrust in the health care system, with claims they had not been properly educated and the complications of diabetes not well explained to them. Insulin initiation was seen to be a punishment rather that a means of achieving better control and limiting further complications. Depsite difficulties in diabetes lifestyle management and therapeutic options, patients have been observed to maintain adherence, have insight into their condition and take active role in the management of their disease. It is the underlying motivations and perceptions of these patients that is not well understood

The use of traditional medication and the negative impact of these drugs on diabetes management has been alluded to by Haque et al. (2005) in particular reference to the South African context. Although focused on patients with hypertension, an analysis of patients' reasons and perceptions of using traditional medication, found that patients preferred traditional medications as traditional healers tended to display better knowledge and enhanced confidence in their medication (Lotika, Mabuza & Okonta, 2013). In addition, these traditional medications were perceived by patients to counter-act the side effects of western medication. As can be seen, attention has been paid to context in some research but the objective is often looking for a direct cause and effect rather than understanding how the findings develop.

Some literature begins to exmaine the relationship between the HCP and the patient has on adherence. A meta-ethnographic study conducted in seven European countries (EUROBSTACLE) emphasised the importance of the relationship with the HCP in terms of formulating patients' beliefs and attitudes towards adherence in diabetes (Vermeire et al., 2007). Understanding the needs and expectations of people with diabetes was shown to be essential in initiating and improving the

outcomes of education programmes for diabetes self care (Rafique & Shaikh, 2006). However, further investigation of this phenomenon is scarce. A relationship based on trust has been shown to be essential in promoting adherence especially during defining moments in the interaction, such as upon initial consultation or diagnosis of the illness; upon intensification of treatment and in the delivery of bad news. If these circumstances convey a feeling of trust and the healthcare provider is able to support the change required, patients have been seen to cope better with the situation and adherence is improved (Bolanos & Sarria-Santamera, 2003; Nagelkerk, Reick & Meengs, 2006). The encouragement and motivation patients acquire through their HCP has also been shown to have a positive impact on adherence. Patients who perceive their glycaemic control to be better as a result of HCP feedback tended to display better adherence (Lerman et al., 2004). The lack of an interpersonal relationship was considered in two South African studies conducted in a rural community in the Western Cape (Kagee et al., 2007) and in Gauteng (Lotika et al., 2013). Lotika et al. also made the comparison of how patients often chose to visit traditional healers as they were perceived to have greater time and be more open to patients' ideas and concerns. This literature begins to suggest that in addition to knowledge and skills of HCPs, the underlying attitude they reflect, may influence patient behaviour.

Focus group discussions with patients have shown that the way in which information is provided and the extent to which the patient is involved in treatment decisions is also associated with better self management of diabetes (Heisler, Cole, Weir, Kerr & Hayward, 2007; Wens et al., 2005). Ownership and accountability for one's own health by involving patients in goal-setting and motivating behavioural change are essential components of improved adherence and successful diabetes management (Matthews, Peden & Rowles, 2009). In order for shared decision-making to occur, communication between HCP and patient needs to addressed. In addition to patient knowledge of diabetes and its complications as key facilitators to adherence, Fitzner et al. (2008) concluded that communication with the HCP was the most important factor in ensuring adherence. In-depth interviews and FGDs with patients has suggested that by empowering patients to become actively involved in their diabetes management through education, communication and mutual understanding of the complex factors involved in decision-making, adherence can be improved (Lerman et al., 2004; Matthews et al., 2009; Rakel, 2009). However, complicating the therapeutic relationship is the additional challenge of language in the South African context as highlighted as a potential barrier to adherence by Haque et al. (2005) and has not received adequate research attention to date within the context of diabetes.

When considering the relationship between doctor and patient and the communication between them as potential factors in disease adherence, the influence of contextual factors such as socio-economic status and language have to be considered. A PubMed search of the literature revealed a total of 197 studies investigating diabetes and adherence from a qualitative design point of view. Of these, only two studies focused on populations with low health literacy or socio-economic status (Calderón et al., 2008; Kokanovic & Manderson, 2007). Similarly, when the key word "language" was used, the original search of 197 articles is reduced to only 12, none of which looks at the unique South African context. Literature on the subject even in the African context is also scanty although two descriptive studies that investigated diabetes adherence, do mention poor communication as a potential causal factor (Abebe, Berhane & Worku, 2014; Jackson, Adibe, Okonta & Ukwe, 2015).

Table 2.1 summarises the factors that are known to affect adherence to diabetes management. In this table facilitators and barriers to care have been separated to illustrate some the above points.

Table 2.1 Summary of factors influencing adherence to diabetes management

	Facilitators		Barriers	
Patient	Patient knowledge of complications, risk reduction, disease progression	Fitzner et al., 2008, Nam et al., 2011 Lerman et al., 2004	Fear of complications, side effects, fear of injections	Tan et al., 2011; Wens et al., 2005; Bailey & Kodack, 2011
	Younger age, female gender	Travis, 1997	Poor socio-economic conditions	Bailey & Kodack, 2011; Nam et al., 2011
			Multiple co-morbidities	Bailey & Kodack, 2011; Nam et al., 2011
Clinician	Use of multidisciplinary team Psychosocial support & patient education	Wens et al., 2005 Fort et al., 2013; Heisler et al., 2009	Inadequate knowledge or experience	Tan et al., 2011; Ross et al., 2011; Ciechanowski et al., 2011; *Haque et al., 2005

	Facilitators		Barriers	
Health care system			Poor accessibility, affordability	Rafique & Shaikh, 2006; Tan et al., 2011; *Goudge et al., 2009; Fort, 2013.
			Staffing issues (long waiting times, lack of continuity of care, shorter consultation times)	*Haque et al., 2005; *Ebrahim et al., 2014; *Goudge et al., 2009; * Parker et al., 2013; Whitlock et al., 2002

	Facilitators	Barriers	
Disease and treatment		Diet & exercise routine	Shultz et al., 2001; Korkiakangas et al., 2009
		Culturally inappropriate diet	*Nthangeni et al., 2002; *Ebrahim et al., 2014
		SMBG	Karter et al., 2010
		Lack of knowledge of LSM	*Kagee et al., 2007; *Mothiba et al., 2013; *Mshunqane et al., 2013; *Muchiri et al., 2012
		Initiation & intensification of medication	Grant et al., 2011; Chao et al., 2007
		Complex dosing regimens, scheduling of treatment	Tan et al., 2011; Nam et al., 2011; Travis, 1997
		Inconvenient, socially isolating regimens	Nam et al., 2011
		Insulin introduction	Peyrot et al., 2010; Vijan et al., 2005; *Haque et al., 2005; Karter et al., 2010; Tan et al., 2011
		Traditional medication use	*Haque et al., 2005

	Facilitators		Barriers	
Interpersonal factors	Understanding the needs & expectations of patients	Rafique & Shaikh, 2006	Language barriers	*Haque et al., 2005
	Relationship of Trust	Bolanos & Sarria-Santamera, 2003; Nagelkerk et al., 2006	Lack of interpersonal relationship	*Kagee et al., 2007; * Lotika et al., 2013
	Encouragement & Motivation	Lerman et al., 2004		
	Shared Decision Making	Heisler et al., 2007; Wens et al, 2005; Matthews et al., 2009		
	Effective communication	Ross et al., 2011 Matthews et al., 2009; Fitzner et al., 2008; Rakel, 2009; Lerman et al., 2004	Poor communication	Jackson et al., 2015; Abebe et al., 2014

Many of these factors summarised in Table 2.1 may be able to be translated into the South African context and certainly, evidence does exist that similar concerns are shared by South African patients (indicated by an asterisk (*) in the table). Those studies conducted in similar developing world contexts or multilingual and cross-cultural contexts have also been identified as such. However, there is certainly a need to investigate these factors within the South African context in more detail. In addition, it seems that the relationship may well be a crucial part of diabetes management but the lack of firm conclusions suggests that a different slant to research may be required. Thus this study looks towards research conducted in other fields to provide insight as to appropriate methodological approach and concrete management behaviours.

2.4.2 Learning from other chronic diseases in South Africa

The HIV epidemic in South Africa has resulted in significant economic resources being spent on drug development, enhanced patient care and research within the field. HIV management also requires strict adherence in order to encourage viral load suppression and prevent complications as a result of the primary infection (Goudge & Ngoma, 2011). The lessons learnt in HIV management in South African can provide a rich data source which can be used to guide and inform the management of other chronic diseases in the same contextual environment.

Difficulties with complex dosing regimens of HAART and frequent side effects have been noted to affect adherence in HIV (Daftary, Padayatchi & O'Donnell, 2014). Such factors may play a similar role in diabetes management due to the complexity of dosing regimens and potential for side effects.

The social determinants of disease present in South Africa have shown to be significant determinants of adherence to HAART (Goudge & Ngoma, 2011) and the authors suggested that a multi-disciplinary approach be used in order to address adherence issues. Especially in rural KZN, socio-economic barriers to ARV adherence and even to attending regular appointments have been described (Peltzer, Friend-du Preez, Ramlagan & Anderson, 2010). However, a meta-analysis of studies in HIV adherence has shown that poor socio-economic circumstances does not necessarily have to translate into poor adherence indicating that these factors may be mitigated (Mills et al., 2006). Another study also found that socio-economic status was not necessarily a barrier towards HAART adherence but that concordance of language between patients and doctors may be a positive influence on adherence (Orrell, Bangsberg, Badri & Wood, 2003). Diabetes also requires frequent health care visits, renewal of prescriptions and regular blood test monitoring all of which depend upon accessibility of health facilities. The multidisciplinary team is indeed a vital component of diabetes management and although most hospitals do have access to these members of staff, referral to them is time-consuming and patient burdens high. In addition, few hospitals have integrated team approaches where members of the team are able to operate in tandem with one another.

Cultural beliefs and perceptions have also been shown to have a powerful influence in HIV adherence. Uwah (2013) highlighted the importance of taking cultural beliefs into account when designing HIV prevention and education messages. Somma & Bodiang (2003) also described how awareness campaigns had been ineffective in changing behaviours due to a lack of emphasis on addressing socio-cultural beliefs. Green (1999) explained how an understanding of cultural beliefs is necessary in order to result in effective interventions. These studies all discussed how people's behaviours are guided by social and cultural norms and how these beliefs are embedded within communities. Uwah (2013) makes the comment, however, that culture is also dynamic and may adapt to circumstances should it be necessitated and the cultural beliefs adequately addressed. Unfortunately, none of these studies defines a specific theoretical model or framework which can be utilised to translate into the diabetes setting. The use of ethnography proved a powerful method of identifying barriers towards HAART adherence particularly related to cultural barriers such as the stigmatisation within the community, the need to maintain social support networks and the affinity of traditional medications (Merten et al., 2010). The issue of culture in health communication research was addressed in particular by Airhihenbuwa and Webster (2004) in relation to HIV prevention and was found that such programmes could not be effective without attention to cultural influences. Swanepoel and Hoeken (2008) also criticised the designers of prevention and intervention programmes who were not familiar with health communication strategies and research.

HIV research has also shown that Community Health Workers (CHWs) can positively influence adherence by the supportive role that they play in educating and motivating patients (Zulliger, Moshabela & Schneider, 2014). Social and family support has also been shown to have a positive influence on HIV adherence (Nachega et al., 2006; Rowe et al., 2005). Goudge et al. (2009) concluded that such social support is indeed beneficial in the management of all chronic diseases in South Africa. Again, the literature in both diabetes and HIV research hints that addressing psychosocial support structures and patient attitudes and motivations towards their illness may be of value.

The role of the doctor in HIV adherence and the importance of communication have also been highlighted in HIV research. Dahab et al. (2008) discussed the important role of interpersonal communication in terms of improved patient adherence in an analysis of a workplace anti-retroviral treatment programme in South Africa. Similar effects were shown by (Peltzer, Mlambo, Phaswana-Mafuya & Ladzani, 2010) in their evaluation of determinants of adherence to single-dose nevirapine in pregnancy. Penn et al. (2011) showed the critical role of communication between patient and pharmacist in antiretroviral (ARV) adherence and the cultural and language barriers that exist in this relationship. The influence of the therapeutic relationship in tuberculosis (TB) management in South Africa has been alluded to by Govender and Mash (2009) in their study on TB adherence. A further study on the perceptions of patients with gestational diabetes highlighted the social prejudices that are prevalent, not only in HIV, but also in other chronic diseases and the manner in which exploration of the life world of the patient becomes vitally important in disease management (Burkett, 2015). Some of this research has begun to highlight the

interpersonal dynamics between patients and HCPs using methodologies suitable to identify these interactions.

2.4.3 Models of behaviour influencing adherence

Some studies have not displayed robust methodologies or sound theoretical grounding which has led to difficulties in the review and interpretation of these studies (Sapkota, Brien, Greenfield & Aslani, 2015; van Dulmen et al., 2007). In reviewing those studies that have utilised a strong theoretical base, three models have been most commonly used to explain adherence behaviour.

The Health Belief Model, first described in 1952, was originally developed to explain and predict behaviour regarding health prevention and risk reduction according to how patients viewed their disease. These included the patients' belief in risk susceptibility, perceived benefits from complying with the medication, reduction in perceived barriers to compliance and perceived severity of the risk (Rosenstock, Strecher & Becker, 1988).

Weitz (2001) also described key factors that either encourage or discourage people from seeking medical care and adhering to treatment. He listed the following conditions and stated that "individuals are likely to define themselves as ill and seek medical care when"

- symptoms are frequent or persistent,
- symptoms are visible,
- symptoms are severe enough to disrupt normal activities,
- illness is the only explanation for the problem,
- access to health care is readily available and
- individuals have a positive attitude towards HCPs

Diabetes in its early stages does not tend to cause visible or any persistent symptoms that interfere with normal activities. The symptoms of fatigue, thirst, change of weight are not severe enough to disrupt normal activities significantly and may also be explained by multiple other illnesses or conditions. Clinical experience of the researcher has shown that strict adherence to management protocols is unlikely especially as diabetes presents with few symptoms in the early stages. Even the complications such as renal dysfunction and deterioration of vision tend to occur insiduously. Symptoms that are severe enough to limit normal activities are not sustained and therefore the health belief model does not seem to adequately explain behaviour in diabetes.

The Theory of Reasoned Action also has been used to describe and explain human behaviour (Dutta-Bergman, 2005). It suggests that behaviour is determined both by attitudes and motivation towards behaviour change. The theory describes how attitudes are formed by the perceptions of others, guided by underlying beliefs. It describes how motivation is also determined by self and others' beliefs. The review by Nam et al., (2011) discusses similar findings where patients' adherence is noted to be affected by their attitude, beliefs and knowledge about diabetes and where these factors, in turn, are influenced by cultural and language capabilities. Furthermore, they also identify the role of the clinician in influencing patients' perceptions via communicative techniques. These are similar factors to the experience of the researcher as well as themes brought up by patients in the pilot study and may well require further exploration. This model may well be able to describe behaviour in diabetes identifying the underlying attitudes and motivation as key factors to determining behaviour, which in turn, are influenced by patients' own and others attitudes and perceptions. In addition, Gomersall, Madill and Summers (2011) identified a similar relationship where the socio-economic context in which patients found themselves needed to be understood in order to explain patients' behaviour. This relationship suggests the vital influence that socio-economic contexts may have on guiding patients' beliefs and perceptions and is of particular relevance in a context such as KZN, South Africa where cultural and socio-economic factors circumstances are diverse and extreme.

In a similar manner to the Health Belief Model, the Extended Parallel Process method describes the perceived threat of a message and the perceived efficacy of an intervention which, in turn, determines behaviour (Witte & Allen, 2000). Clinical research in diabetes has proved that certain interventions are effective. The perceived threat of uncontrolled diabetes is also well researched and well documented. With all this new evidence in diabetes management available and the potential complications of poor adherence documented, these postulates alone seem unlikely to explain behaviour in diabetes. However, it may be that there is a link between the clinician's acquisition of this knowledge and the transfer of the knowledge to patients leading to a need to investigate the relationships that exist between them and the way in which these messages are conveyed.

2.5 Translating Adherence to Health Outcomes

Ultimate long-term outcomes of the consultation include the health status of the patients as defined by morbidity and mortality. But in order to achieve these outcomes, good adherence needs to be achieved. For this reason it remains the main goal of chronic disease management (Wagner et al., 2001). This relies on the fulfilment of short term goals such as patient satisfaction, recall and understanding of the problem as well as the development of the relationship between HCP and patient.

Good adherence does not always result in good health outcomes (Hays et al., 1994). In an American study conducted by Harris (2000), 733 adults were sampled of whom 88% saw their doctor more than twice a year, 91% had health insurance and 45% regularly monitored their glucose levels at home. Despite this over 58% had an HbA1c level above target, 60% had other co-morbidities that were poorly controlled and 26% had been hospitalised within the previous year. In addition, 42% of the patients themselves assessed their health status to be below average. A similar study conducted in rural KZN also showed attendance at regular doctor's visits and reported adherence to management plans to be good, however, the mean HbA1c was 11.3%, with a high incidence of co-morbidities and complications (Rotchford & Rotchford, 2002).

In some instances, intangible markers such as satisfaction have been shown to influence adherence as well as long-term health outcomes of chronic disease management. Instrumental or cure-focused behaviour was shown by Roter, Hall and Katz (1987), to enhance patient satisfaction as patients felt their concerns had been thoroughly explored and addressed. A review of the literature on doctor-patient relationships (Ong, De Haes, Hoos & Lammes, 1995) described specific communicative behaviours that can influence the relationship – cure vs care behaviours, verbal vs non-verbal elements, privacy behaviours, controlling behaviours and language used. These same elements were again emphasised by King and Hoppe, (2013) as beneficial to patient satisfaction. Bensing (1991) found that affective or care-focused behaviours, particularly non-verbal behaviours, were rated highly by a panel of experienced clinicians in terms of the quality of psychosocial care delivered. Although patients satisfaction also was associated with these behaviours, the link was not as strong. Behaviours such as addressing the patient by name, the doctor sitting down during their consultation and adequate privacy, all contributed to eventual satisfaction on the behalf of the patient. On the other hand, the more time doctors spent on chart review was shown to decrease patient satisfaction. Dominant, controlling doctor behaviour has also been shown to negatively impact patient satisfaction. A survey of parents of child patients at a large Children's Hospital also concluded that attention to patient centred care showed positive effects in terms of patient satisfaction (Wanzer, Booth-Butterfield & Gruber, 2004). Tallman et al. (2007) utilised an interesting methodology of videotaping 92 adult primary care visits and then interviewed participants about their perceptions of the communication observed after they had viewed the video. A positive association was shown between those consultations where participants identified good communication techniques and high patient satisfaction (Levine & Ambady, 2013).

Other studies have used physiological markers such as blood pressure reduction or frequency of depression as a proxy for health outcomes. These studies have showed a link with improved health outcomes due to improved communication between HCPs and patients (Epstein & Street, 2007; Levinson, Lesser & Epstein, 2010). Mead and Bower (2002) reviewed all empirical studies that had investigated the relationship between patient-centred care and health outcomes and found a lack of methodological rigor. Although they found a suggestive link between interpersonal relationships and patient outcomes, no definitive conclusions could be made due to a lack of consistency in the studies. King and Hoppe (2013)

also highlighted the need to look critically at the methodology used in these studies as though the data was suggestive, the effect sizes are small and the studies inconsistent in their methodologies.

Randomised Control Trials (RCTs) are often favoured in scientific literature for the way in which they are able to measure causal relationships from an objective point of view. A series review of RCTs where outcomes related to doctor-patient relationships were measured, showed a small yet significant benefit of improved interpersonal relationships (Kelley, Kraft-Todd, Schapira, Kossowsky & Riess, 2014). However, the studies reviewed were conducted exclusively in developed countries limiting conclusions that can be drawn from this contextual environment.

In a systematic literature review of adherence in diabetes, Clifford et al. (2014) concluded that there exists no "gold standard" for measuring adherence and considered that it may not be a direct causal relationship between any one particular variable and adherence as an outcome. This sentiment is shared by Gomersall et al. (2011) who suggest that chronic disease management may be influenced by a complex mix of factors, including interpersonal relationships. It is difficult to relate doctor-patient relationships directly to quantitative measures such as morbidity and mortality, especially when so many confounding background factors exist although some reviews have shown an association between good interpersonal relationships and improved health outcomes (Di Blasi, Harkness, Ernst, Georgiou & Kleijnen, 2001; Stewart, 1995). Despite the fact that many components of adherence rely on a sound doctor-patient relationship, there is no conclusive evidence to prove a direct causal relationship to positive health outcomes (Kaplan, Greenfield, & Ware, 1989a). Thus the main aim of this study is to explore the relationship between doctors and patients in more detail with a view to filling this gap in translating adherence into health outcomes.

It has been acknowledged that the consultation forms the basis of the interaction between doctor and patient and that the relationship demonstrated in this time may well influence other downstream factors that can influence the eventual health status of the patient (Kaplan et al., 1989a). If this relationship is crucial in determining patient behaviour, the methodology employed should be appropriately designed. RCTs have shown minimal benefit in this regard as have survey responses that are not able to be validated by observed behaviours. Thus it begins to emerge that a new mechanism of studying an old problem is necessary. The importance of communication is highlighted and therefore the following chapters will examine this field in more detail paying particular attention to the methodologies used.

2.6 Concluding Remarks

This chapter contextualises diabetes as a disease that has a significant role to play in the global and South African health care environment. The problem of diabetes needs to be contextualised as a global epidemic on the rise as well the role it plays in the disease burden of South Africa. The combination of non-communicable and communicable diseases, such as HIV, places a tremendous drain on health resources in South Africa but also creates a unique context in which a disease such as diabetes is managed. The continued rise in the prevalence of diabetes, despite excellent clinical research, indicates that a new perspective may need to be adopted.

The aetiology of diabetes is such that it is influenced by behavioural decisions as well as physiological factors present within the body. The monitoring and control of the disease implies that a great deal of the responsibility for management rests with the patient rather than entirely on the HCPs. Responses to treatment are individualised and determined not only by medication prescribed but also by patient behaviour and lifestyle choices. These behaviours need to be acceptable and appropriate within the socio-cultural environment of the patient. In addition, complications of the progression of diabetes also impact on human behaviour, lifestyle and function within society.

Lifestyle modification has been shown to play an important role in diabetes management. However, literature is unable to show a direct causal effect between a specific behaviour and adherence outcomes due to the multifactorial and complex nature of the disease. The majority of studies have adopted RCTs or survey responses as methodological tools to understand adherence behaviours. In some instances, this lack of a direct causal relationship has also been attributed to interpersonal dynamics at play. Diet, exercise and other lifestyle behaviours are inextricably linked to socio-economic and cultural beliefs and practices. South Africa presents a unique socio-cultural environment with historical and political influences that remain prevalent to this day. If lifestyle behaviours are known to be crucial to diabetes management, it stands to reason that these factors need to be explored explicity within the context in which they occur.

A review of the literature on adherence shows no direct cause and effect between any specific behaviours and optimum adherence or health outcomes. Thus it begins to highlight the role of the unique context in which each consultation occurs and the role the individual HCP plays in the management. Lessons learnt from other chronic disease are reviewed as well as potential outcomes that can be ‘measured’. Various models of behaviour have been examined to understand the possible factors that influence and effect disease management and health outcomes. Finally, the relevance of communication is brought to the fore and will be examined in more detail in the following chapter.

CHAPTER 3: UNDERSTANDING COMMUNICATION

3.1 Introduction

As discussed in Chapter 2, the management of diabetes is a complex mix of adherence to medical treatment as well as lifestyle choices. These choices are frequently linked to social and cultural behaviours and thus implementing these changes needs to be incorporated into these contexts. It is for these reasons that adherence in diabetes management has become a well-researched topic with multiple authors attempting to discover how best to tap into the world of the patient in order to achieve better adherence. Multiple factors have been postulated and investigated as barriers or facilitators to adherence. More recently, the crucial role of the HCP as a factor in this adherence has been investigated and the role of the interpersonal relationship studied as a key factor in diabetes management.

Communication is the essence of this relationship and thus becomes the focus of this study. This chapter will explore the field of health communication in more detail, review previous research in the field and examine current health communication teaching methods within the South African health care system. Finally, it will provide justification for the methodological approaches necessary to set out in achieving the aims and objectives of this study.

3. 2 Health Communication

Multiple methodologies and theoretical viewpoints have been utilised in order to study health communication as detailed in these review articles - Glasgow, Klesges, Dzewaltowski, Bull, & Estabrooks (2004), Griffin et al. (2004), King & Hoppe (2013). The range of topics within the field and heterogeneous terms also makes the study quite complex. Some studies have focussed mainly on verbal communication, others on the non-verbal aspects whilst others have included both aspects. Many review reports have commented on the need for there to be a consensus amongst researchers as to the theoretical viewpoints, methodologies and analytical tools used. These are described in some detail below.

An important consideration when studying communication is that of language as the very nature of human communication is that it is reliant upon a language system. Thus multiple scenarios exist where communication strategies may be studied in various different languages. For the purposes of this study,

communication literature published in English only has been considered but not limited in terms of the language in which the consultations were conducted.

Despite these multiple challenges and complexities, the study of health communication has provided important in-roads into understanding the doctor-patient relationship and the effect it has on health care. Kreps (1989) defined health communication as being "concerned with the value of the human relationship embedded within health care." It is this value that will be explored further including within the South African context and as it relates to the management of a CLD such as diabetes.

3.2.1 Theoretical approaches

3.2.1.1 Functionalist

Early work in studying doctor-patient communication described the relationship and subsequent communication from a functionalist perspective where the doctor was seen to be the benevolent, competent and moral guardian of society whose role was similar to that of a parents towards a sick child (Lupton, 2012). The belief existed that sick persons were physically compromised and thus not capable of performing usual social roles. In addition, this role that was taken on by the patient was not seen to be an unequal power relationship as both doctor and patient were merely fulfilling roles and assuming responsibilities that society provided to them. The ultimate aim of a harmonious relationship was to maintain health and alleviate suffering. One aspect of this viewpoint that may remain relevant is the notion that both parties are expected to have relationships and encounters outside of the consultation which were acknowledged to impact on the consultation between them in future.

Such relationships may still exist in certain instances in medical practice, especially in rural or poorly educated populations. If doctors and patients are able to fulfil their expected roles and achieve the shared goal of curing the disease and relieving suffering, both agendas may be satisfied. The power differential noted in favour of the doctor is perpetuated in such relationships by the authority given and respect shown to the doctor by the community he serves, although the way in which this power differential is managed by the individuals is more important for the relationship than the mere fact that it exists.

3.2.1.2 Patient-centred perspective

Over the last 50 years, emphasis has been placed on a more patient-centred approach to the consultation and ensuring that the patient's agenda is addressed. In the late 1960s, Balint (1969) proposed the idea that patients present with various symptoms within the illness context and that the doctor's response should be guided by this context. As early as the mid-20th century, the Balints also described the role of

the doctor as a factor in the outcome of the consultation. This concept was alluded to as a gap in the literature on diabetes adherence (Chapter 2) and will also be discussed in more detail later.

Both Levenstein et al. (1984) and Lipkin et al. (1986) built upon this original patient-centred model, where they described the influence of individual patient stories that influenced the patient's own biomedical and psychosocial symptoms and concerns. They also described the importance of the doctor being able to understand the voice of the patient when conducting a consultation (Levenstein, McCracken, McWhinney, Stewart, & Brown, 1986; Lipkin, Quill, & Napodano, 1984). Mishler (1984) described these voices of medicine and voices of the life-world in more detail and proposed that if doctors were able to bridge the divide more easily, that patient care would be enhanced.

The patient's life-world consists of previous and current experiences, a desire to be understood and have his/her symptoms relieved. These goals are enmeshed within the patient's own preferences, concerns and ideas (Smith & Hoppe, 1991). They also include the personal, family and social context in which the illness presents as well as attention to the patient's fears, anxieties and concerns (Mead & Bower, 2000). Such contextual influences become vitally important within a complex socio-cultural environment such as South Africa where these factors are intertwined and deeply embedded in individuals and form a strong component of health beliefs and attitudes. Furthermore, within the context of diabetes management where patients are expected to make lifestyle changes, these contextual influences become vitally important.

The world of medicine is a scientific world in which doctors construct meaning, focusing on diagnosis, treatment goals and safe practice. Just as patients have a context from which they come, so too, do doctors. In addition, to his own socio-cultural influences, the doctor also belongs to a medical subculture. This is a culture characterised by a higher social status, higher potential earning power and the status into which a doctor is enculturated (Helman, 2007). Doctors have the responsibility of treating illness, relieving pain and suffering as well as balancing this with scientific, evidence-based medicine. Doctors also are trained to categorise their scientific knowledge and a great deal of emphasis is placed on numerical definitions and laboratory parameters in order to make diagnoses and guide management decisions. These definitions may not be familiar parameters to patients and the importance thereof not always relevant to the lay public. The knowledge and experience of the doctor and how they operate within the practice team will also influence their advice and behaviour during the consultation. Finally, the reality of the world in which doctors find themselves will also influence the outcome of their advice and behaviour. The way in which this biomedical world is communicated to the patient, may well determine the way in which the consultation is interpreted.

Recent approaches to the therapeutic relationship have considered the different voices and life-worlds of doctors and patients and acknowledged the need for patient-centred care. This includes doctors being

more responsive to patients' needs and perspectives and incorporating patients in guiding decision making (Epstein & Street, 2007; King & Hoppe, 2013). Research has indicated that patients benefit from this approach to the relationship and seek such concordance in their health care interactions (King & Hoppe, 2013).

Barry et al described how the voice of medicine and the voice of the patient's life-world may be in conflict, leading to a struggle and fragmentation in the consultation (Barry, Stevenson, Britten, Barber, & Bradley, 2001). Others have gone on to indicate through specific conversational analysis how this struggle and conflict, where the life world of the patient is ignored, has led to poor clinical outcomes (Maynard & Heritage, 2005). These realities are reflected in the lived experience of the researcher who has witnessed the frustration and difficulties that occur when doctors' and patients' views and concerns are not in agreement. The literature highlighted in Chapter 2 also alludes to multiple instances where the relationship between doctor and patient is suggested as a possible influence on adherence and clinical outcomes but where the study design was not ideally suited to the further investigation thereof (Abebe, Berhane, & Worku, 2014; Fitzner et al., 2008; Haque et al., 2005; Jackson, Adibe, Okonta, & Ukwe, 2015; Kagee, Le Roux, & Dick, 2007).

3.2.1.3 Interactional approach

The importance of the experience of the patient in medical care is shared by Family Physicians, who value the importance of patient-centred care as one of the principles of their speciality (Mash & De Villiers, 1999). McWhinney (1997) described the character of the Family Physician in his seminal textbook on Family Medicine as someone who "seeks to understand the context of the illness". Family physicians have been instrumental in bringing these concepts, often considered on the fringe of medicine, into medical practice and medical education both internationally and in South Africa (see Section 3.3.2).

Over the last 30 years, researchers have become more interested in these various contextual factors influencing the therapeutic relationship. The review by Ong et al. (1995) alluded to the type of disease, the type of patient and the type of doctor as well as contextual variables such as language, culture, ethnicity, political environment and social context to be influencing factors on the relationship. Subsequent authors have also referred to the "performance" or interaction within the consultation that is created by the "actors" (Massad, 2003). This reflects the wealth of history and life experience that each actor brings the consultation and the way in which they will each interpret this performance based upon their own self-identity and past experiences (Lambert & Street, 1997). It is within this performance that information is shared, meaning is created and decisions are made. This manner of viewing the consultation also reflects the social constructionist viewpoint of realities being created between the participants and the multiple influential factors that will affect the outcome thereof.

This interactional model is described by Candlin and Roger (2013) in Figure 3.1 where interactions are acknowledged as a product of the individuals involved and that a shared reality is created in the interaction. It also demonstrates that communication lies at the heart of the relationship and is the preferred means by which humans establish and maintain relationships. The sharing of medical information is vital to ensure the doctor has all the necessary information with regard to the nature of the patient's illness, the symptoms and extent of the disease. The doctor also needs to communicate the diagnosis back to the patient in a way that will ensure adherence and warn the patient of any adverse signs or events, explain the way in which to take the prescribed medication and any information about follow-up arrangements and what steps should be taken in the future. Patients, on the other hand, seek a doctor who has expert knowledge and extensive experience yet also want to be understood and heard (Ha & Longnecker, 2010; Ong et al., 1995). The words spoken, the grammar and lexicon utilised, in combination with the non-verbal elements, forms the base of the message that is to be conveyed. The interaction will be interpreted and understood according to the environment in which it takes place. Within the context of chronic disease management, this environment becomes even more important, as they influence the lifestyle changes that are able to be made, the ongoing therapeutic relationship and ultimate management of the disease.

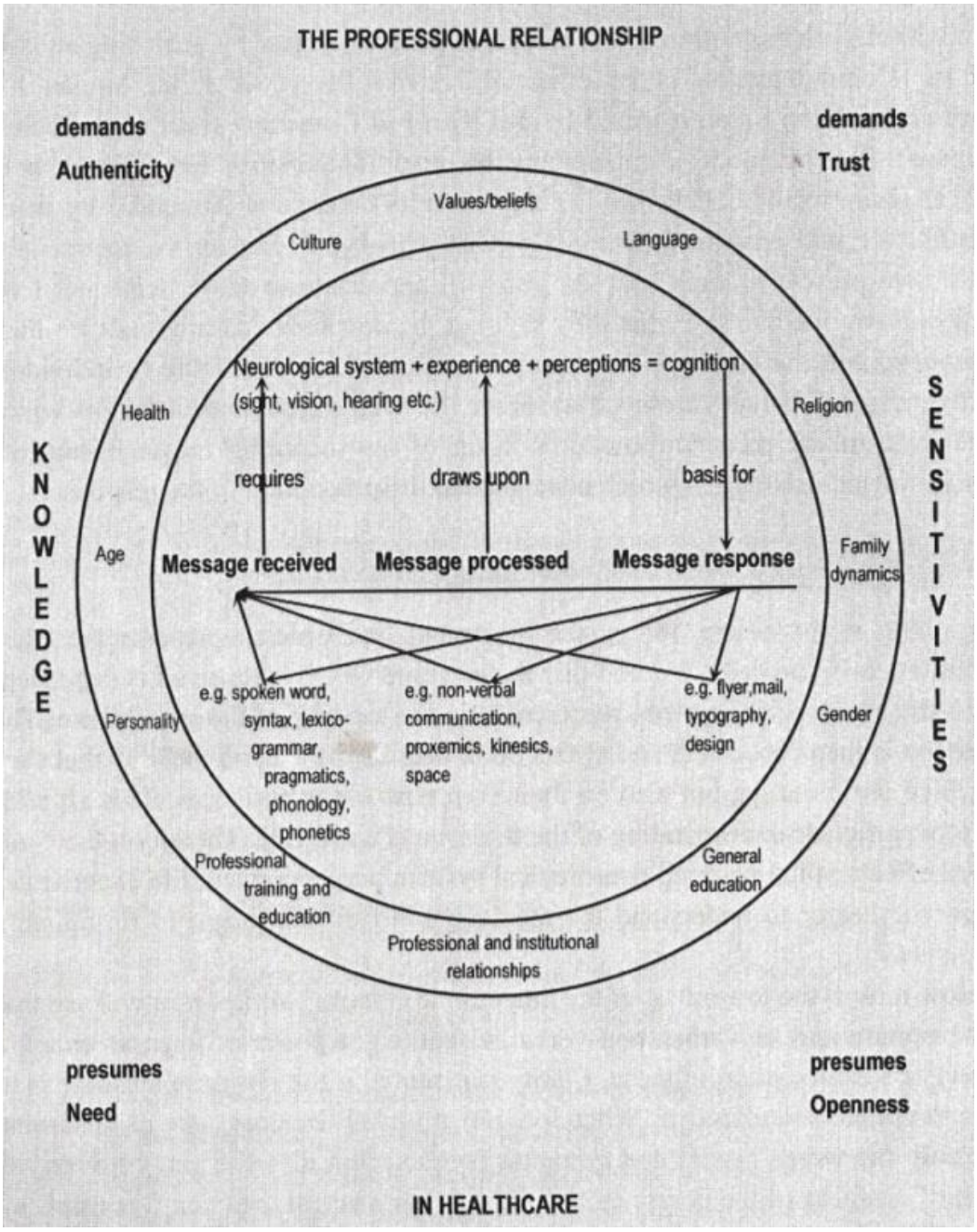

Figure 3.1: Graphical representation of the multitude of factors influencing professional relationships in health care (Candlin & Roger, 2013)

Various international studies have showed that the way in which doctors relate to patients from a different cultural background alters from the way they usually speak to patients (Borovoy & Hine, 2008; Meeuwesen, Harmsen, Bernsen & Bruijnzeels, 2006; Rhodes & Nocon, 2003; Schouten & Meeuwesen, 2006). Not only has the doctor-patient relationship been shown to be different in cross-cultural consultations but medical care has sometimes also been shown to be inadequate in these circumstances (Oomen, Owen & Suggs, 1999). Patients were also found to alter their communicative behaviour when dealing with a doctor not from the same cultural group as themselves with various studies showing a lack of assertiveness, less social talk, less verbal behaviour and less expression of their feelings and expectations. Some reasons suggested for these changes in behaviour were differences in health beliefs, cultural values, educational level and language ability (Schouten & Meeuwesen, 2006). Misjudgements in relating to patients across language and cultural differences have been shown to lead to misinterpretations and misunderstandings (Flores, Abreu, Barone, Bachur & Lin, 2012; Haffner, 1992; Hudelson, 2005).

An important distinction between the international and South African contexts is that international studies in cross-cultural medical interactions refer to the patient as part of a minority cultural group. In South Africa, the situation exists where these cross-cultural interactions involve a patient from the majority cultural group and a doctor from the minority group. Therefore, being able to provide cross-cultural care is an important skill in the South African environment. However, the way in which this can be done using international models as a guide is not well understood.

3.2.1.4 Social constructionist approach

Over the last decade, researchers have begun to view health communication from a constructionist standpoint. Flick (2006, pp 66-68) suggests three major concepts in this regard. Firstly, that behaviours are motivated by the underlying meanings and perceptions of the contextual environment, secondly, that these meanings are derived through social interactions created by the participants themselves and thirdly, the meanings may adapt and change as circumstances and contexts change. This implies that even in specific socio-cultural environments, behaviours may change with each consultation.

These concepts were elaborated on by Littlejohn and Foss (2000, pp. 45-46) describe the governing principles of social constructionism as they relate to human communication. Firstly, they describe how people make decisions and act in accordance with their subjective understandings of the situations in which they find themselves. The way in which patients are able to manage their illness, depends on their understanding of the interaction they experience.

Secondly, they describe how social life consists of interaction processes rather than structures and is therefore constantly changing. At different times, patients may require support, guidance, information or direction. The way in which people understand their experiences is primarily based upon communication and language which therefore become vital components in the relationship established during a consultation.

Other principles include how people's actions are based on their interpretations, in which the relevant objects and actions in the situation are taken into account and defined. These actions may differ depending on the socio-cultural context of the interaction and the participants. Social interactions are based on a jointly constructed understanding of the individuals and the world around them. Individuals cannot be separated from the context in which they live or from other people with whom they interact (T. L. Thompson, Cusella, & Southwell, 2014).

And finally, the way in which people perceive themselves is also dependent upon how they interact with others. This complex intermingling of contexts and experiences guides the decisions, discussions and actions and demonstrates how people respond and react in these situations (T. L. Thompson et al., 2014).

Studies that have used this framework have been able to analyse the interactions and identify key aspects within a specific contextual environment (Bensing, Roter, & Hulsman, 2003; Drew, Chatwin, & Collins, 2001; Pilnick, 2002; Roberts & Sarangi, 2003; Schouten, Meeuwesen, & Harmsen, 2009; Watermeyer & Penn, 2009). All these studies base their methodology on the premise that knowledge is constructed within everyday social interchanges and that communication and language play a vital role in these social interplays. This is the viewpoint that will be taken forward in this study to aim at the way in which the relationship develops within the consultation.

3.2.2 Methodological approaches

Methodologies used to study health communication are almost exclusively experimental in nature. Some have allowed for natural experimentation to occur and have not interfered with the variables at play. Other quasi-experimental designs have eliminated random assignment in an attempt to make it easier to study different social environments. Various methodologies are described below highlighting the main benefits and pitfalls as they relate to this study.

3.2.2.1 Randomised Control Trials

RCTs are useful in establishing causality and form the vast majority of experimental research in the medical context. In therapeutic trials they are considered the "gold standard" by which other studies should be measured. However, it is difficult to capture the multifactorial nature of communication with such a research method as Kreps (2011) describes. Some of the limitations of these studies in health communication research is the need to maintain high internal and external validity in order to limit errors. Thus generalising these studies into different contextual environments becomes difficult. The design of these studies also does not allow much exploration into the meanings behind the results observed, another key component of health communication.

Despite these limitations, a vast amount of research in health communication has been conducted using RCTs. Kelley et al. (2014) conducted a review where over 6000 articles were screened for inclusion. Only 13 were included in the final review due to the articles not being written in English, the consultations not being routine health visits or including psychological presentations which were considered to potentially skew the results. Although the effect of communication strategies was small (d=0.11), it was comparable to effect sizes of other well-established interventions. The authors compared this to the effect size of aspirin being able to reduce the incidence of myocardial infarction over a five year period (d=6) and the influence of stopping smoking on male mortality over eight years (d=0.8) which they argued were both well-known and accepted interventions. This comparison, although supportive of the role of communication, also highlights the problem with considering a direct cause-effect strategy through the use of RCTs. Both the incidence and myocardial infarction and male mortality have multiple known causal factors and it is the relationship between these factors that is important in health care rather than the elimination of one factor in particular. Similarly, with communication strategies, the complex interactive nature of the relationship may be diluted by using this methodology.

Other authors using RCTs have also shown an association between effective communication and improved health outcomes. Harrington, Noble and Newman (2004) reviewed a series of randomised, placebo-controlled studies and found that over half resulted in improved patient participation when communicative behaviours were considered to be positive. Patient satisfaction was the most common outcome followed by improved control over health, improved participation in health care, enhanced recall of information, improved adherence and attendance of health visits. However, the problem with these studies is the definition of positive health care behaviours, as required in order to analyse the endpoints of the trials, which assumes an already biased view without due consideration for contextual differences. Griffin (2004) also reviewed 35 RCTs where they showed some link between effective communication and health outcomes but concluded that more rigorous studies are required specifying the interventions and practices in greater detail. Another review of RCTs reported good outcomes in 16 of 21 studies when patient communication was improved (Stewart, 1995). As has already been discussed, this study steers away from a quantitative design so as to explore further the meaning behind these observations.

3.2.2.2 Narrative

The narrative interview seeks to understand the experience of the participant - how a situation began, how it developed and what occurred as a result (Flick, 2006, pp.173-175). Over the last half-century, this method of story-telling and analysis has given important insights into the practice of scientific and clinical medicine (Hurwitz & Charon, 2013). It has provided an appreciation for interactional and relational phenomena and life-world information on the topic. (Charon, 2001) describes the importance of clinicians being able to understand the stories of their patients in building a relationship. The merging of these social science methodologies into the field medicine have also shown significant benefit in medical education in being able to contextualise and explain the social processes that exist (Frank, 2013).

However, although these contextual influences and interactions may be considered, there is little evidence for these perceptions. A major disadvantage of using this method alone is the opinions may be subject to recall bias and persuasion. Another limitation is the amount of textual data obtained from such studies as well as the language barrier inherent in eliciting an extensive narrative from a person where the researcher is not fluent enough to conduct the interviews.

Goudge and Ngoma (2011), utilised a narrative approach exploring experiences of ARV treatment adherence and found that inter-sectoral programmes that addressed the social determinants of health were most successful in promoting adherence. This data becomes extremely valuable when contrasted with other literature in the field using different methods that have produced similar findings (Kagee et al., 2007; Vreeman et al., 2009).

3.2.2.3 Interviews and Focus Group Discussions (FGDs)

Although these two methodologies are different and have slightly different perspectives, they are discussed together as many studies employ a combination of these techniques. Structured or unstructured interviews allow for in-depth investigation into the perceptions, beliefs and attitudes of participants (Flick, 2006, pp. 150-157). However, they are unable to focus on the interaction between participants and in a similar manner to narrative theory, provide little evidence to justify the claims made by the participants. However, they are extensively used in qualitative research to gain these insights from participants and in combination with other research methods.

The strength of FGDs is that they stimulate discussion amongst a semi-homogenous group of respondents and can gain important information about beliefs, values, attitudes, experiences and suggestions (Flick, 2006, pp. 150-157). They are also relatively low-cost and can provide rich data on the subject through the group interactions and stimulation of discussion. However, a challenge is to allow equal participation from

all respondents and not to allow the voice of a few to dominate the group. A skilled facilitator may be able to mitigate this limitation (Kreps, 2011). Another limitation may be the way in which questions are phrased leading respondents to present their responses in a particular manner. Again, a broad interview schedule and skilled facilitator can alleviate these concerns. Finally, it may be difficult for the facilitator to participate and lead the discussion as well as to record notes. Therefore FGDs are frequently audio-recorded and transcribed in order to conduct analysis of the data.

In particular, studies concentrating on cross-cultural interpretations of health communication have utilised interview techniques to gain initial data on community perceptions (Calderon, Baker, & Wolf, 2000). Malta et al. (2010) used a combination of interview techniques to explore the communication between HCPs and patients in relation to reproductive health in HIV-positive women in Brazil. An evaluation of communication of health messages in Tanzania was conducted by Mboera et al. (2007) also highlighting poor communication in these circumstances. Studies conducted within the HCRU have also utilised a combination of interview techniques and other methods to successfully study health communication behaviours (Penn et al., 2011; Penn, Watermeyer, MacDonald, & Moabelo, 2010). This study will use a combination of these techniques shown to be useful in understanding background insights to the study data.

3.2.2.4 Surveys

Surveys are another common method used in medical research. They are able to examine the attitudes, beliefs and activities of respondents (Thompson, 2003). However, there tends to be a lack of depth and perspective to these studies with results being sample and content specific (Mouton, 2001). Again, sampling bias, leading question format and lack of standardisation have been criticisms of this type of research especially within the field of heath communication. Another limitation has been the criticism that people do not form their ideas alone, at a specific time, on paper but rather attitudes and beliefs are moulded by real-life experiences (Rich & Ginsburg, 1999). Additional difficulties with this method may lie in the supportive evidence required to confirm the reports of respondents and in particular, in situations where a power differential exists, reports may be exaggerated in order to please the researcher (Sankar, Golin, Simoni, Luborsky, & Pearson, 2006). This becomes particularly relevant in different socio-cultural settings where power differentials may exist and as such is not a desired approach in this study.

3.2.2.5 Ethnography

Initially described as a methodology by Garfinkel in the 1960s, ethnographic methods are highly valuable in providing a description of a group of people embedded within their own context and real life-worlds (Denzin & Lincoln, (eds), 2005; Foley & Valenzuela, 2005; Rich & Ginsburg, 1999). Ethnography specifically aims to understand the context in which people find themselves and to explore the nature of the social

phenomena observed (Tedlock, 2005). It usually is concerned with a small number of cases but these participants are studied in great detail and it works with unstructured or uncoded data (Flick, 2006, pp. 227-230). It is commonly applied to anthropological, sociological and cultural studies in order to understand the social worlds of participants. The context in which people find themselves may change from time to time as may the person's resultant attitudes and behaviour (Robson, 2002).

In order to understand communication and resultant behaviour, we need to understand the context in which it occurs and this may take place from two perspectives. The first is from an outsider's perspective otherwise referred to as 'etic' perspective (Galanti, 1999). This involves describing participants' behaviour and relating these to how other participants may behave in a similar circumstance. An 'emic' perspective aims to understand participants' behaviour from their own point of view (Galanti, 1999). When these two perspectives are juxtaposed and compared, a deeper degree of understanding of the context may be attained. Thus the true value of ethnography lies in being able to create meaning from the contextual environment in order to understand behaviour (Brewer, 2000). Ethnography yields high validity in terms of the way in which the study is constructed and offers valuable in-depth insights into the topic. Kreps (2011) commented on the value of ethnographic methods in health communication research as a means of enriching the underlying motivations and processes that affect health care. However, due to the specific nature of these studies, they lack the ability to be generalised and frequently lack rigor in their analysis. In addition, they are vulnerable to the bias of the researcher and are time-consuming to conduct.

Within the context of South Africa, socio-cultural data become important when understanding communications and cultural interactions as Tjale and De Villiers (2004) describe. The HCRU has shown considerable advantage in combing the use of ethnographic data with other data sources in order to fully understand the behaviours and perceptions of participants (Penn & Watermeyer, 2012; Penn et al., 2011; Watermeyer & Penn, 2009d). These studies described the successful use of ethnography in understanding the communicative behaviours between pharmacists and patients as have other studies conducted with the HCRU and previously described. A meta-ethnographic study conducted amongst HIV-positive patients in sub-Saharan Africa highlighted in Chapter 2, was particularly powerful in generating important cultural phenomena that influenced interactions (Merten et al., 2010). Habib (2008) also used ethnography to explore the ways in which humour was used in a cross-cultural communication environment. These studies are particularly valuable in substantiating other data and understanding the contextual influences and will thus be used as an adjuvant method in this study.

3.2.2.6 Audio & video data / Observed data

Audio and video recordings as a method of data collection are commonly used in qualitative research. The visual method of data collection is of particular use as it permits observation of interactions to be converted into textual data for an in-depth analysis. In addition, it allows the researcher to become an

observer for the duration of the data collection (Perakyla, 2005). The use of video-recordings provides a useful opportunity to visualise non-verbal components of the communication and conversations and acts to supplement the audio data and provide a detailed recording of facts (Flick, 2006, pp. 41-44). It also provides what Flick refers to as a "non-reactive recording" of observations in that the researcher is not a participant in the data but has access at a later stage to re-analyse the data as an observer.

Pomerantz, Fehr and Ende (1997) used a combination of video-taped consultations and interviews to look at the ways in which experienced clinicians to handle "difficult" communication interactions. Collins (2005) also used a combination of interviews and recorded interactions when looking at communicating around interactive strategies within consultations. Kang and Zayts (2013) also used video-techniques to look at communication and interactional "difficulties" between doctors and patients in the context of prenatal screening programmes. Research within the HCRU has also found a combination of methodologies to be most effective. Penn et al. (2011) conducted similar research identifying verbal and non-verbal behaviour by means of researching communication by video-recording pharmacist – patient interviews.

A potential disadvantage of using video-recordings is the manner in which the video equipment is used and the limitation of movement allowed by the camera in order to ensure it does not become the focus of attention. A participant may behave differently when they know that a consultation is being recorded. Another disadvantage thus lies in ensuring the authenticity of the data. The data will be interpreted from the view point of the researcher and hence there is an opportunity for some discrepancy in what the participant meant and what the researcher analysed to data to mean. Although, the intention of this current research is not to gain a "right" interpretation of data, the researcher by using video-recordings in combination with other data sources, hoped that a meaningful and sensible interpretation of data could be reached. This method of analysing video-audio consultations in conjunction with other data is fully described in literature (Perakyla, 2005).

3.2.2.7 Mixed methods

Many studies in health communication have used a combination of methodologies in order to achieve the objectives of the study. These combinations are balanced so as to gain an accurate view of the environment, the participants' behaviours as well as their viewpoints. Evidence from each source can be compared and contrasted with that from another source and limitations in methodology compensated for by means of this combined approach.

An interesting study by DiMatteo, Robinson, Heritage, Tabbarah and Fox (2003) described the lack of correlation between medical records, patients' reports and videotaped data. Although chart records can

provide factual quantitative information on blood parameters and disease control, they found that notes made by physicians may not accurately reflect the nature of the consultation. In the same way, patients' reports of the consultation may also be biased.

3.2.2.7 Analysis of data

Methods of analysis in health communication are almost as diverse as the methodological tools used to collect the data. Thematic content analysis forms the basis of most qualitative research. This allows for texts to be coded and then analysed according to pre-determined (deductive) or de novo (inductive) themes (Atkinson & Delamont, 2005; Denzin & Lincoln, (eds), 2005). The strengths of this type of analysis are that it is non-reactive and errors between the researcher and subjects can be avoided. However, limitations of the analysis lie in the authenticity and reliability of the analysis (Mouton, 2001).

The need to identify the best coding strategy for analysis was discussed by Frey, Botan and Kreps (2000). Interviews, FGDs and observed data can be analysed in this way by means of audio- or video-recording or a combination of both. This allows for both verbal and non-verbal communication to be assessed. Schouten et al. (2009) raised an important limitation of this method of coding speech acts in that it did not allow any insight into the interaction of the consultation. They cited the commonly used phrase "I understand how you feel" and discussed the various meanings that could be conveyed by these words depending upon how they are spoken.

The Roter Interactional Assessment Score (RIAS) system is probably the most commonly used coding system in health communication research (Roter & Larson, 2002). This system allows for audio- or video-material to be analysed based on voice and phrasing cues. A coding system allows the user to categorise utterances as they are spoken and the system is thus extremely time-efficient. Inter-rater reliability has been shown to be very high and thus accuracy of meaning upheld. Despite this, the method has been criticised by some as it pre-supposes meaning on the utterances as they need to be coded into the various categories and account is neither taken of the effect that the coded segment has on the progression of the conversation nor its outcome (Sandvik et al., 2002; Thompson et al., 2014). It also does not value the importance of a pause (filled/unfilled) and lacks the ability to code silence. Although notes can be taken to detail the effect of a particular utterance, the system is not primarily designed for this purpose. Coding of utterances is encouraged into individual categories and multiple outcomes or coding categories are discouraged. For example, if an utterance is coded as showing "empathy", it cannot also be coded as "legitimising" or "showing concern". Such codes are not always exclusive. The manner in which coding occurs without due regard for the outcome of the utterance may mask certain utterances that could have the opposite effect. For example, a question, 'How are you feeling today?' is an open-ended question but may not invite a broad response depending upon the way in which the utterance is delivered. If the speaker makes no eye contact with the listener, has a terse, sharp tone and mutters the utterance under

his breath, it may indeed invite a closed-ended response. However, according the RIAS system, this utterance will still be coded as an open-ended question suggesting a positive communication technique. Heritage et al discuss the difference that individual words can make in consultations and how a system such as RIAS scoring may overlook these nuances in favour of broad categorisation (Heritage, Robinson, Elliott, Beckett, & Wilkes, 2007).

However, human interactions are neither static nor predictable and no single behaviour directly influences a certain outcome. Previous experiences may cloud the way in which messages are received and experienced and individual contexts may alter the way messages are delivered, received and responded to. In addition, the way in which behaviours are coded may have different results in different contexts.

Discourse or conversational analysis (CA) techniques have proved highly effective in analysing communication interactions. CA is considered to be a sub-component of discourse analysis that focuses purely on verbal and non-verbal communication whereas discourse refers to documentations, notes, records etc. as well (Flick, 2006, pp. 320-326). CA was developed in the late 1960's by Harvey Sacks and his colleagues Emanuel Schegloff and Gail Jefferson (Ten Have, 2007). The goal of the analysis is to describe micro-elements of speech in order to understand the behaviours and explain the outcomes of the conversation. This form of analysis is popular amongst researchers in the field of health communication and includes a detailed structural analysis of the uses of language within the interactions (Beach, 2002; Drew et al., 2001; Maynard, 2003; Maynard & Heritage, 2005). One of the major strengths of this type of analysis is the high validity that it carries although it does require a detailed knowledge of the coding and can be extremely time-consuming.

Health communication researchers have also begun to concentrate on the non-verbal as well as verbal messages in interactions as a vital component to understanding how messages are transferred and the meaning derived from the interaction (Albrecht, Penner, Cline, Eggly, & Ruckdeschel, 2009; Ambady, Koo, Rosenthal, & Winograd, 2002). The review article by Maynard and Heritage (2005) about the use of conversational analysis techniques within medical education creates an important awareness of the value of studying these interactions in order to enhance understanding of the therapeutic relationship and the role of communication within this relationship.

3.2.3 The contribution of health communication research

Now that the various methods have been discussed, the following section examines the contribution of health communication research in general. Health communication research provides important information for a number of different applications. Firstly, it is able to bridge the gap between art and science and provide for an exchange of expertise between these two, seemingly diverse branches of

thought. Secondly, it forms a vital component of medical education and finally, can provide key information in health policy development through information on disease patterns and community perceptions of disease.

3.2.3.1 The Art of Medicine

The field of health communication bridges the divide between the science and the art of medicine. The scientific world of medicine includes the facts of disease diagnosis, prognosis and evidence–based management guidelines whilst the art of medicine refers to the interpersonal relationships and emotional manner in which the science is delivered. Saunders argues that for this reason, the two components of medicine cannot be separated (Saunders, 2000). The art of medicine was first alluded to by Hippocrates (c. 460 – c. 370 BC) but found itself to be outbalanced by the science of medicine. However, researchers are now dedicating focus towards the art of clinical medicine – to understanding the value of the human interaction, the nuances in the discourse and the impact it has on tangible health outcomes. Researchers have been encouraged to use different methodologies and theoretical viewpoints to assess the application of science in health care (Saunders, 2000).

Ellis (2004) speaks about the important role that communication can play in bridging the gap between the science and the art of medicine as he explains the different contexts from which patients and doctors come. The medical world is governed by time whereas the rural African tradition prefers to relate incidents to significant historic events, ruling chiefs of the day or a specific season of the year. African culture also holds different explanatory models of illness as to the Western biological and scientific model. Ellis describes how African culture uses concepts of *umnyama* (pollution), *indiki* (spirit possession), *ubuthakathi* (bewitchment) and *ukuthwasa* (callings) to explain various illnesses and how these models are much more intuitive and spiritual that the Western ideas. The way in which people are able to understand and merge these different contexts is strongly influenced by the communication that occurs between them. It also alludes to the social context of the disease and the manner in which understanding is constructed.

The art of communication plays an important role, particularly in the South African context, in terms of negotiating management decisions and ensuring patients are able to make autonomous decisions regarding their health care. Shared decision making relies on an interactive process where doctors and patients make decisions jointly and thus language becomes a vital component of this ability. This emphasis on language has also influenced research on shared decision making amongst African patients and their health care providers. It should not be assumed that patients are unwilling or unable to take an active role in their care unless they have expressed such a desire. Politi, Dizon, Frosch, Kuzemchak, & Stiggelbout (2013) highlight the importance of the ethical imperative to allow patient autonomy in order to benefit their health care. Levin (2006a) has indicated how discordant language preferences can be a barrier to

care and Deumert (2010) has also shown how these language barriers are deeply entrenched within the South African context. The issue of informed consent has also received attention in reference to health communication in Africa. The National Health Act 61 of 2003 recommends that patients have procedures explained to them in a language they understand and that their interpretation of what they have heard also be checked. This issue was explored particularly with regard to the ethics of HIV vaccine trials in low-income settings and the communication barriers that became important in order to gain consent (London, Kagee, Moodley, & Swartz, 2012).

3.2.3.2 The language of communication

The language in which communication occurs is vital to the way in which it can be studied. The situation in South Africa where consultations are frequently language discordant creates barriers in accessing health care and has been shown to undermine trust between doctors and patients (Anderson, Scrimshaw, Fullilove, Fielding, & Normand, 2003). This discordance has also been shown to result in diagnostic and therapeutic errors (Fiscella, Franks, Doescher, & Saver, 2002; Woloshin, Bickell, Schwartz, Gany, & Welch, 1995). A review of language on health outcomes in Hispanic & Latino communities was conducted by Timmins (2002) and found significant decrease in the quality of care. Similar results have been shown in South Africa with regard to patients being dissatisfied with the discordant communication that had occurred and the negative impact this would have on their health care (Levin, 2006a). Schlemmer and Mash (2006) conducted focus group discussions (FGDs) with patients who identified inefficient working environment, decreased satisfaction with their care and cultural misunderstandings all to be related to language barriers within the hospital environment.

A great deal of research and expertise has been devoted to developing medical terminology in various different African languages. These researchers have concentrated on developing words where none exist as well as in defining existing words used by local communities and in documenting these terms (Engelbrecht, Shangase, Majeke, Mthembu, & Zondi, 2010; Levin, 2006b; Madzimbamuto, 2012; Mbananga, Mniki, Oelofse, Makapan, & Lubisi, 2004; Strasheim, Kritzinger, & Louw, 2011). However, what is becoming evident is that even within one language system in South Africa, meanings of words and phrases differ and individual communities have constructed their own terminologies.

As a result of multi-lingual contextual environments globally and in South Africa, not only do language and terminology become relevant, but also the choice and use of interpreters. International research on training interpreters has received a great deal of attention. Dedicated training of interpreters in order to achieve the desired outcomes is favoured (Hudelson, 2005; Jacobs, Diamond, & Stevak, 2010). The use of *ad hoc* interpreters, although common within South Africa, has been shown to lead to numerous errors, negative attitudes of staff and patients, decreased satisfaction with care and adverse health outcomes (Kilian, Swartz, Dowling, Dlali, & Chiliza, 2014; Schlemmer & Mash, 2006). Another challenge within the

South African context is the lack of financial resources to support formal interpretation services (Erasmus, 1999). Watermeyer (2011) suggests that a more flexible style of interpreting be utilised within this context where patients are afforded the opportunity to choose when they wish to use an interpreter and that alternative methods of conveying messages be employed if interpreters are not available. These include the use of props, visual aids and hand gestures in order to augment meaning (Watermeyer & Penn, 2009a).

3.2.3.3 Communicating on behalf of the community

Another goal of health communication research may be to provide evidence for health care policy and practice and to inform appropriate interventions (Kreps, 1989). The South African health care system as described in Chapter 1, provides a situation where resources are limited. Training programmes for clinicians and educational programmes for patients compete with a significant disease burden and financial and time constraints. Patients in the public health care system have little to no choice in where or by whom their health care is provided. The burden of disease which includes merging epidemics of HIV and chronic disease also results in multiple morbidities, complex pathologies and many potential drug interactions. Thus the challenge is to provide the correct information, in a succinct and clear manner in as short a time as possible ensuring the best possible health outcomes.

Health and illness may well hold various meaning in different cultural contexts. The commonest example of this in the South African context is the African perception of associating wealth, health and prosperity with weight gain. Obesity is not viewed as a sign of poor health but rather a state of plenty and fulfilment. The way in which health messages and interpreted and understood may well guide health behaviours. As early as 1952, Zaborowski conducted a study on pain in culturally diverse populations. Even with a physical symptom such as pain, there was varied interpretation of pain dependent upon cultural and ethnic biases.

In the South African context, the development of sound, evidence-based practice policies is required in order to address the socio-cultural and political context in which the health care system is located. A review of primary medical care interactions described how health communication was shown to be a key component of these interactions (Beck, Daughtridge, & Sloane, 2002). Primary health care is the fundamental building block upon which the South African health care system is based and also forms the backbone of care for all diabetes management. Health communication research has also resulted in the piloting of projects involving new technologies in reaching rural and remote communities. Through the use of telemedicine and innovative cellular phone technologies (Mars, 2010; Mugisha, 2009; Shiferaw & Zolfo, 2012), researchers have been able to bring health care to all communities in line with policies and plans to improve service delivery to all sectors of the population

Health communication research in South Africa is still an emerging field with only one dedicated unit in the country conducting specific research. The Health Communication Research Unit (HCRU) at Witwatersrand University (Wits) has led a number of studies aimed at understanding the barriers to care in inter-cultural health contexts. This research has proven useful in understanding the influence of communication in health care by using qualitative research methods and has been able to make recommendations for policy and practice that are socially relevant within the South African context (Penn & Evans, 2009; Penn et al., 2011; Penn et al., 2010; Watermeyer, 2013; Watermeyer & Penn, 2009b; Watermeyer & Penn, 2009).

3.2.3.4 Contextualising communication

Lupton (1994) suggested that the analysis of communication that occurs between doctors and patients may be able to explain the patterns of disease that are established and become fixed within societies. In the context of diabetes, an in-depth exploration into how communication occurs may be able to fill the gaps of knowledge in translating clinical evidence into health outcomes. The diabetes epidemic is well-known to the public and contributing factors such as healthy eating and physical exercise are components to which the lay media pays a great deal of attention. And yet, this knowledge combined with the knowledge of clinicians is not able to reduce the incidence of the disease. From a positivist perspective, such a mismatch between knowledge acquisition and behaviour seems almost incomprehensible. However, it does also hint towards a more complex structure in the relationship between knowledge and behaviour and the unique manner in which behaviours are constructed.

In addition, the implications of a disease for the patient should be viewed within various sociocultural, political and historical contexts thus explaining the variable outcomes that are noted (Lupton, 1994). Other authors have also re-iterated the value of life-world contexts and how outcomes cannot be viewed independently of the context in which they occur (Bailey & Kodack, 2011; Goudge et al., 2009; Nam, Chesla, Stotts, Kroon, & Janson, 2011; Rafique & Shaikh, 2006; Southwell & Yzer, 2007; Tan et al., 2011). Such research supports the need to address an old problem from a different perspective – one where the contextual environment and individual constructions are valued. Again, diabetes management provides a rich environment in which to look at these contextual influences as lifestyle behaviours are often embedded within social, cultural and historical beliefs.

Communication has played a vital role in community health education in Africa with numerous studies showing how lack of attention to appropriate cultural customs and communication preferences have resulted in poor outcomes for community intervention projects. Sudanese health workers' lack of knowledge about community methods of dealing with diarrhoea was found to result in the health message being inappropriately communicated (Aubel, Rabei, & Mukhtar, 1991); non-adherence was found as a result of poor communication of malarial treatment (Conteh, Stevens, & Wiseman, 2007) and

the need to improve HAART adherence also linked to improved communication and understanding (Nachega et al., 2012). A commonality in this research being inadequate transcription of methods of practice into a different context. On the other hand, when community health workers were able to communicate effectively and offer appropriate support to patients, adherence was found to be greatly improved (Zulliger, Moshabela, & Schneider, 2014) indicating a co-construction of meaning in changing behaviours.

Research in the field has moved clinicians and researchers to agree that communication may not be a skill that comes naturally to people and can indeed be taught (Maguire, 1990; Silverman, Draper, & Kurtz, 1995). The implication of this has direct impact on the training of medical undergraduates and the need to include communication skills teaching in medical education. In addition, to communication skills training which will be discussed in more detail in Section 3.3 below, the acquisition of language skills and cultural competence which are now receiving more attention in medical education.

3.3 Teaching Communication in Medical Education

Internationally, medical education is experiencing a period of transformation. The scientific advances of the last century have not been able to adequately address the ability of medical education to meet the needs of the society it serves (Frenk et al., 2010). Emphasis is being placed on developing medical graduates who are able to respond to the changing needs of society and who are equipped with the competencies required to perform in this environment thus emphasising the social aspects of how medicine is practiced. Medical education in South Africa has also responded to this challenge and new curricula are being designed and implemented. The current challenge facing medical education will be discussed both globally and within the context of South Africa highlighting the unique challenges and responses required.

3.3.1 Medical Education Internationally

Medical education experienced a critical change in the early 20th century with the publication of the Flexner Report (Flexner, 1910). This document encouraged the incorporation of scientific methods into medical education and transformed the way in which medicine was taught. One hundred years later, medical education has again been found lacking in that reviews have shown it has seemingly not kept up-to-date with meeting the needs of the society it serves. A seminal report published in The Lancet in 2010, detailed the way in which health education should be encouraged to reform in order to meet the changing demands of the 21st century (Frenk et al., 2010). Frenk and Chen led a team of experts in the field who concluded that the health and education systems needed to work more in tandem with each other to

produce medical graduates who could demonstrate critical reasoning, ethical conduct and who were responsive to the needs of the population that they serve. Amongst other problems, the authors of this report found that medical graduates are trained mainly in the sciences and lack the contextual understanding of human behaviour. The focus on tertiary-level training and limited horizontal involvement with other HCPs during their training has resulted in doctors not having the required training and experience in inter-professional teamwork and primary level care. The authors noted that students are also trained in singular encounters with patients and the value of continuous care was found to be lacking.

Towards the end of the last century, education committees identified patient consumerism, financial imperatives, technology, government regulations and advancement in medical knowledge as being some of the key drivers necessitating a transformation in medical education and thus a review of medical education began (Brownie, Thomas, & Bahnisch, 2012). The main drivers for this review were universities in Canada, UK and Australia, which leads naturally to the concern of whether the models created are relevant to other situations, in particular developing countries. However, the challenges of the developing world including increasing workforce shortages, enhanced need for collaborative care changes in health service delivery and financial constraints all demand a greater emphasis of these challenges in medical education and are better addressed by a competency-based pedagogical framework. Another criticism has been that original models were aimed at postgraduate, specialist training and not at undergraduate training (Harris, Snell, Talbot, & Harden, 2010); however, best practice has shown that these competencies can be translated for use in undergraduate programmes if due attention is given to the methods of teaching and assessment.

The methodology employed specifically by the CanMED Project Working Group included consultation with fellows in all specialities, input from consultations with doctors and patients, input from health care organisations as well as public focus groups. In addition, the available literature was consulted. Once an initial thematic analysis of the data had been performed, a modified Dephi process was employed to identify core competencies to include in a competency framework (Frank & Danoff, 2007). Various phases of development and challenging the model have finally resulted in the model depicted in Figure 3.2 below. The central competency underlying the role of a medical graduate is that of a “medical expert” but this role is supported by various other core competencies including that of a communicator. All skills are now recognised as equal co-factors in the repertoire of skills displayed by medical graduates.

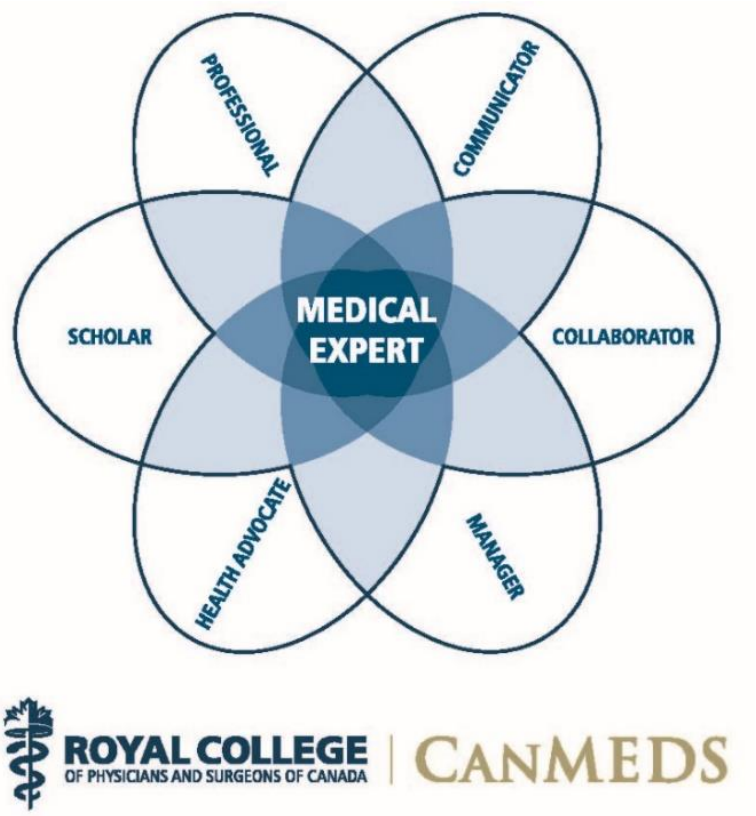

Figure 3.2: CanMEDS competencies as outlined by the Canadian Royal College of Medicine indicating the role of communicator as a core competency in medical education[7].

This model certainly begins to suggest that medical experts require a multitude of skills and attitudes to support their basic knowledge and enable a productive interaction between doctor and patient. Ongoing development of the model continues with translation into other contextual environments by local working groups. The development and implementation of the model within the South African context will be discussed in detail below.

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3.3.2 Medical Education in South Africa

Medical education in South Africa shares the global challenges described above but also has to contend with socio-economic and political challenges. As outlined in previous chapters, South Africa has substantial health inequity and the advances in medical technology and professional expertise are mostly inaccessible to the majority of the population. Medical graduates are trained in advancing their medical knowledge and skills in tertiary institutions, with adequate resources available by medical experts in the various fields. The populations they serve upon graduating are vastly different. For the majority of South Africans, specialist care is not available and primary care physicians or primary health care nurses are responsible for their care (Brand et al., 2013; Ncayiyana, 1999). This places the onus on the abilities of the primary health care workers to have the skills required, be able to function within the health care team and refer patients when necessary. Effective transportation of the patient, acceptance into the tertiary system when required and communication back to the primary care worker are all important components that are often not well managed (Brand et al., 2013). It is often this contextual shift that creates an additional and unnecessary stress on new graduates and renders the health care they are able to provide as sub-optimal.

Abdool-Karim, (2004) describes the initial changes in medical education that took place after the fall of Apartheid. During that time, the eight medical schools in South Africa were divided by racial and language categories. Since 1994, medical schools across the country have attempted to increase the number of non-white students and improve the throughput of students in the curriculum. A further problem in medical education in South Africa is the loss of skilled professionals and graduates to emigration. This has a further effect on the professionals available to teach at medical school as well as on the number of postgraduate specialists trained (Abdool-Karim, 2004; Ncayiyana, 1999).

Trained within the 20th century, the researcher was familiar with the concept of skill and knowledge teaching of scientific medicine. The experience of medical education was limited to vertical training by specialists with little interaction from a multi-disciplinary team. Chronicity of patient care was not emphasised nor the focus on preventative or educational aspects of health care. All these factors led to the reflections motivating this study where medical practice was found to be lacking in dealing with a CLD such as diabetes. Experience of working as a junior doctor in a rural hospital also highlighted gaps in knowledge in terms of the socio-cultural context and the immense impact that these factors had on clinical medical practice.

One of the major advances in medical education in South Africa over the last decade has been the recognition of Family Medicine as a speciality (Hellenberg & Gibbs, 2007). This has allowed for the postgraduate training of generalists who are skilled in providing continued, comprehensive care for patients and their families within the primary health care environment. Family Physician specialists also

formed the majority of the members of CHEER, a research group composed of representatives from each medical faculty in South Africa who produced a sound body of research on medical education in South Africa, particularly within underserved and disadvantaged areas (Couper, Hugo, Conradie, & Mfenyana, 2007; Diab et al., 2012; Reid & Cakwe, 2011; Reid, Couper, & Volmink, 2011; Wilson et al., 2009). The research highlighted the need for community-based medical education that is adequately supported and resourced at an undergraduate level and pays due attention to the social and economic context in which medicine is practiced. This research has also been able to inform and guide strategic decisions within the country in relation to medical education and service delivery. Family Physicians have also recently been included in District Clinical Specialist Teams assigned to all districts in South Africa the goal of which is to support health delivery, clinical leadership and training in better fulfilment of the millennium development goals (Voce et al., 2013).

Some of the principles of Family Medicine include continuity of care as well as treating patients within their own home environment. Both of these principles have important implications for chronic disease management and integration of services at the primary health care level. They also emphasise the need to view an illness within the context it occurs and to consider the social factors that become relevant. In addition, Family Physicians have driven the importance of qualities such as leadership, manager, communicator, advocacy and scholarship. Within the context of service delivery in health care in South Africa, these qualities are vitally important. Clinicians need to be able to manage health resources effectively and efficiently. Ongoing scholarship is essential in an environment where new epidemics arise and management plans are constantly updated. In an environment of low health literacy and poor socio-economic conditions, health advocacy needs to be incorporated into service delivery to ensure affordable, accessible and equitable access for all patients. In an environment where language discordance is particularly high, communication becomes a vital element of health care as well as being essential to translate the clinical knowledge of clinicians into understandable messages for patients.

The competencies for health professionals suggested by the Canadian Medical Society were embraced by the South African Undergraduate Education and Training (UET) subcommittee of the Medical and Dental Professions board in February 2011. It was decided that it should serve as a basis for future training of health professionals in South Africa and should inform how curricula are designed and assessed (Van Heerden, 2013). In implementing these new competencies, medical education both internationally and in South Africa has changed from teaching skills and knowledge to equipping graduates with competencies and attitudes required to adapt to an ever-changing social environment. Whilst the acquisition of knowledge and skills is fundamental to clinical practice, the manner in which these skills are practiced and knowledge shared is incorporated into the graduate competencies. Such attitudes that have been suggested as critical to medical practice include those of empathy, trust and respect.

The roles defined in such a competency model have important implications for chronic disease management. The model highlights the importance of the medical expert to be able to integrate himself into the health care team and collaborate with other professionals. It encourages medical graduates to be able to act as an advocate for their patient and the community to address issues of social accountability and health inequity. The value of a lifelong scholar and manager are also highlighted – competencies which are emphasised within the principles of Family Medicine as well. Chronic disease management is constantly being updated and improved upon as new technologies, pharmaceuticals and protocols are developed. It is important that health professionals are aware of these changes and able to embrace them into daily practice. Finally, the importance of the medical expert as a communicator is equally weighted with other roles stressing the need for health professionals to pay attention to the way they communicate with their patients, family members and other colleagues. If these competencies are included in the training of health professionals, it will hopefully equip graduates with the skills required to operate effectively within the South African health care environment.

Medical Education at UKZN

As a lecturer based in the UKZN, the perspective of the researcher is based on the teaching from this institution. The College of Health Sciences (CHS) at UKZN further adapted the competencies together with the DoH for local usage within the context of KZN (see Figure 3.3).

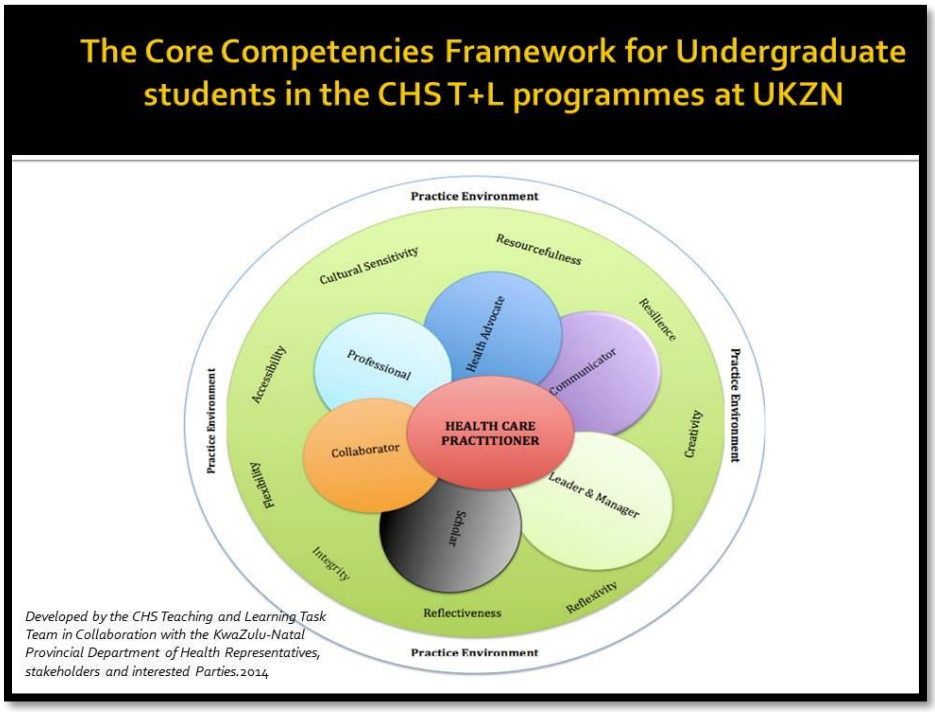

Figure 3.3: Competencies adapted by the UKZN College of Health Sciences for local usage

The UKZN CHS model includes the practice environment as the background against which the competencies should be viewed. In addition, it highlights the variety of attitudes which support the development of competencies amongst students. The model depicts the role of communicator as one of the seven core competencies of a medical graduate. Communication guides, such as the CCCG outlined in this study, may be used as a basis for teaching communication and teaching of essential communication skills however, as detailed in the report by Napier et al. (2014), imported guidelines and practices need to be evaluated with the local context in mind. This is particularly relevant in the province of KZN where the vast majority of the population speak isiZulu, and where, until recently, instruction at the university has been only in English.

At the UKZN, a bilingual language policy was approved in 2006 with particular emphasis on the "professional / vocational training for undergraduate students" (University of KwaZulu-Natal, 2006) This policy has guided the implementation of isiZulu as a second language within the university and from 2014 all first year students have completed a module in isiZulu. Within the UKZN medical school, isiZulu teaching has been offered for a number of years predominantly in the pre-clinical program. An evaluation

of proficiency of isiZulu amongst medical students has suggested that communication and language teaching should be integrated throughout the medical curriculum in order for students to benefit fully from the teaching (Matthews, 2013). More recently an innovative series of isiZulu communication videos relating to the clinical content of what is being taught as well as integrating bilingual language learning and the development of communication skills have been developed at UKZN (Diab, Matthews & Gokool, 2016). This use of video technology is being increasingly acknowledged in teaching communication as it highlights both the spoken as well as visual aspects of communication and will be discussed in more detail below. This study uses audio-video technology in a similar manner to "teach" and inform with regard to the communication behaviours that take place during consultations.

Communication and language teaching in Medical Education

The role of "communicator" is crucial within the context of a multi-lingual society such as South Africa. Not only do health professionals need to be able to convey their message accurately, succinctly and with empathy, but they often need to do this in a language and a contextual environment with which they are unfamiliar. It is the mechanisms of conveying this message within an unfamiliar environment that are not well understood.

Communication teaching has traditionally been left to disciplines such as Family Medicine and labelled as "soft skills" teaching in comparison to "hard skills" such as various surgical procedures (Egnew & Wilson, 2010). This has resulted in graduates neglecting the "soft skills" in other disciplines and compartmentalising their usage only when required. The importance of establishing relationships with patients, communicating effectively with them and displaying empathy are concepts generally taught only in Family Medicine with medical and surgical sub-disciplines concentrating on the core facts of being a medical expert.

Communication is not a skill that should be "added-on" after the fact, or a skill required only with certain patients. Teaching of communication skills should ideally be integrated into the core curriculum and addressed through the career of a medical student so that learning can be developed and enhanced over time. Evidence suggests that spacing of learning is better than large blocks of learning in a short space of time and that learning is improved by revisiting smaller amounts of content over time. This concept is highlighted by Davachi et al. (2010) in their discussion of the AGES model (Attention, Generation, Emotion and Spacing) which is based in neurocognitive learning theory. Over the last decade, neuroscience has guided learning theory in the importance of learning, long term retention and retrieval of learnt material and how this is linked to the strength of activation of the hippocampus of the brain during a learning task. The AGES model refers to the need for learning to draw the *Attention* of the student through its form and relevance, to *Generate* new knowledge by being able to contextualise and retain information, to activate an *Emotional* response to learning and for the learning to be *Spaced* (distributed) and revisited over time.

This model would favour communication teaching being integrated within the learning of the medical expert throughout the undergraduate career as well as for communication teaching to bridge the gap between pure medical expertise and relevance in the greater contextual environment.

In addition to communication teaching, the acquisition of language is also important for South African medical graduates. Historically, very little second language learning has been taught at South African universities and medical education has been either in English or Afrikaans. Local vernacular languages were generally only offered as optional modules or taught in the early pre-clinical years and not integrated or continued into the clinical years training. Consequently, medical graduates have had to rely on their own initiative to develop their language skills once they began their professional careers. Immersion within a community has been shown to be an effective method of learning a foreign language (Yamazaki & Kayes, 2004). Advocates for professionals learning the language of their patients within the community have suggested that the focus be on learning language for a specific purpose and that they actively seek opportunities to practice the language, listen to the language and not be afraid of making errors (Pfaff & Couper, 2009).

More recently, the ability to communicate within a professional environment in a second language has been advocated as "vocational specific language teaching" (Maseko & Kaschula, 2009). This method of teaching focuses on vocabulary and terminology required by the professional and incorporates language learning into the context in which it will be used. Grammar and syntax are taught but emphasis is on spoken language rather than the written language.

In addition, video-techniques have proved valuable in communication teaching platforms. The value of participants providing feedback on their own performance (Mort & Hansen, 2010; Yoo, Son, Kim, & Park, 2009; Zick, Granieri, & Makoul, 2007) and peer-assessment to encourage reflection and modification of communication techniques (Seif & Brown, 2013; Tigelaar, Dolmans, Meijer, de Grave, & Van der Vleuten, 2008) has been described. By providing feedback on their own and peers' performances, participants gained valuable insight into skills such as empathy, the value of the patient perspective and the manner in which the interview was conducted (Perera, Mohamadou, & Kaur, 2010).

Coupled with the multi-lingual environment of medical education in South Africa, is the diverse cultural milieu of the country. The development of cross-cultural skills is inherently part of the patient-centred approach to health care. It has as its core the understanding that each patient is a unique person and should be viewed within their context, taking into account the patient's individual beliefs, values, concerns and preferences. It relies on the building of a relationship between doctor and patient and the common ground between them. Being able to converse in a language familiar to the patient is also a vital skill in developing cultural sensitivity. Suggestions have been made to assist students in the development of cultural awareness. Various interactive learning methods such as role playing (Wearne, 2004), interactions

with standardised patients (Colliver & Swartz, 1997) and the keeping of a self-reflective journal (Das Gupta & Charon, 2004) have been shown to be useful in enhancing empathy and developing cultural awareness in students. Cultural awareness has been described as not just an acquisition of cultural knowledge, skills and attitudes but a development of "critical consciousness" in being aware of cultural differences that are relevant to oneself, others and society in general (Kumagai, 2009). The ability to reflect on experiences and understand why they occur as they do as Kumagai suggests is the basis of critical reflection and forms part of the rationale for this study. The lessons learnt from this study, although conducted within the unique South African context, may still be relevant in other multi-cultural environments where such skills are required.

The consultation as a basis for communication – a teaching framework

When considering the interaction that occurs between doctor and patient as part of a therapeutic relationship, the consultation becomes the focus of attention (Roter & Hall, 2006). Multiple models of the consultation framework have been formulated which aim to provide biomedical information as well as pay attention to the needs of the patient. At the UKZN, the CCCG has been adopted which pays particular attention to both the content of the consultation ("what" is communicated) as well as the process of the consultation ("how" it is communicated). An exploration of the patient's perspective, as described by Silverman & Draper (1995), yields an opportunity to understand the patient's context and to guide the manner in which these factors influence therapeutic decisions.

The CCCG developed by Kurtz and Silverman (1996) is described by its authors as providing a patient-centred method of incorporating patient's ideas, beliefs, concerns, expectations and effects on daily life into the medical interview. It is a widely used guide in medical education in North America, Europe and many other sites around the world, including South Africa. The underlying philosophies are that doctor-patient communication is central to clinical practice and that communication skills can be taught and learned. Thus specific teaching methods are required in order to achieve these skills (Silverman, Kurtz, & Draper, 2005, pp.8-9). The purpose of developing these skills is to enhance satisfaction for both doctors and their patients, improve the therapeutic relationship and thereby improve health outcomes. The guide was developed with the aim of supporting a patient-centred approach where doctor and patient are able to work together in achieving the goals of the consultation. The skills and guidelines developed in the CCCG relate to two overarching aims – that of providing structure to the consultation and that of building the relationship. Skills described relate therefore to both the content of what is communicated as well as to the process of how it is communicated. The expanded framework utilised in the guide is depicted in Figure 3.4 below.

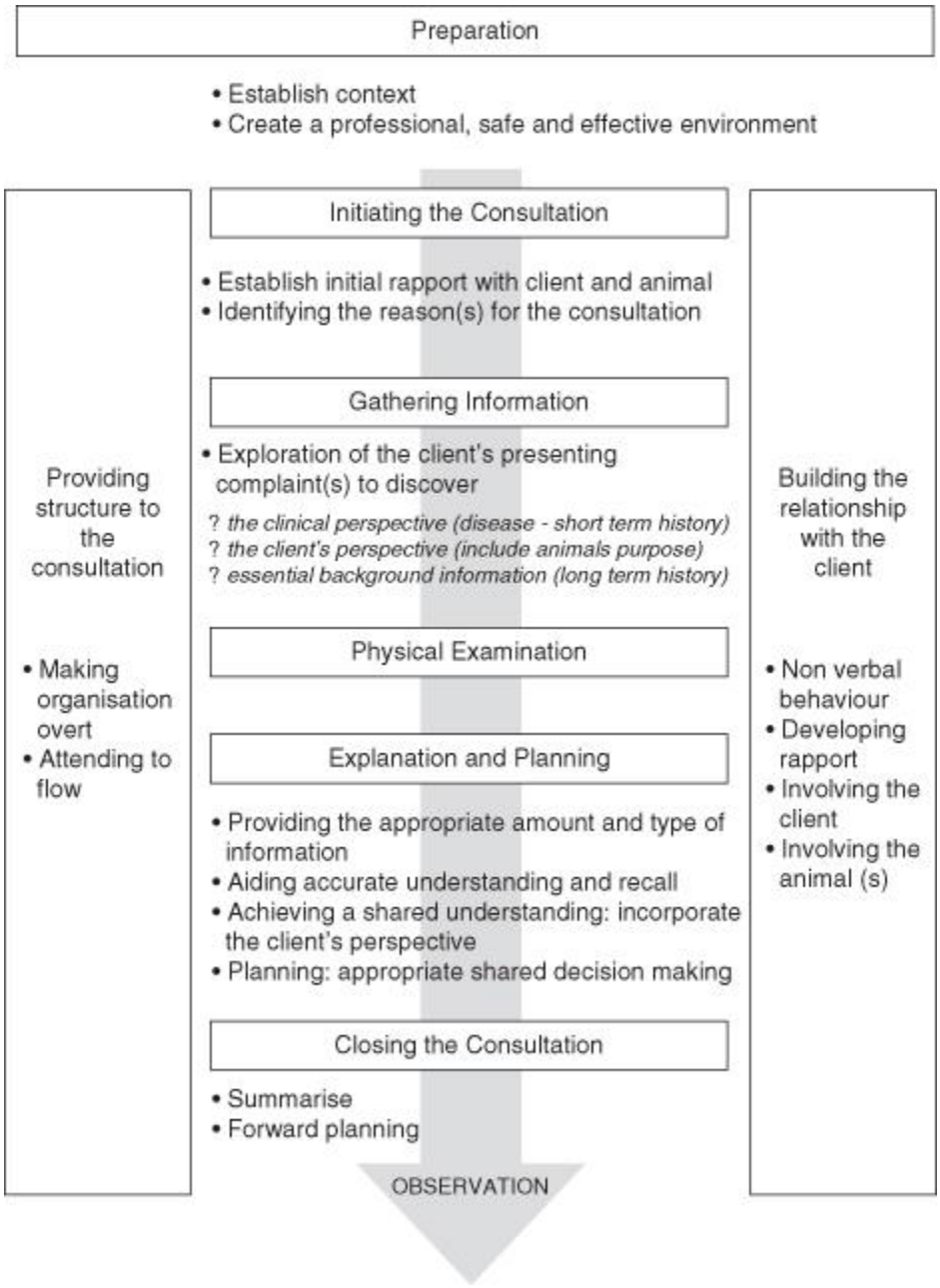

Figure 3.4 Expanded framework of the Calgary-Cambridge communication guide (CCCG)

There are numerous other communication guides available and utilised worldwide in order to guide health care interactions. Cegala and Lenzmeier-Broz (2002) present a review of 26 such representations and conclude that sound theoretical and pedagogical research is required if the development of such guides. Checklist approaches have been favoured in the past to remind healthcare providers of the numerous areas of enquiry that should be investigated when consulting a patient. The nature of chronic disease management is that regular follow-up is required both by law in terms of renewing the prescription for a patient and in tracking the progression of the illness. These follow-up consultations lend themselves towards a check-list approach as a change in symptoms is documented and monitored. Checklists would usually include mainly bio-medical concerns and symptom investigation rather than an enquiry into the disease experience of the patient.

Most of the more recent guidelines are based upon the premises of patient-centred communication. This study does not wish to interrogate any guide specifically but rather to use the concepts of these guidelines in analysing communication that occurs within therapeutic interactions. This view is supported in the discussion by King and Hoppe (2013) in their review of "best practice" in terms of doctor-patient communication where they discuss the importance of components such as fostering the relationship, gathering information, providing information, decision-making, responding to emotions and enabling behavioural change.

An additional consideration when using communication guides is that they tend to be developed in Western medicine contexts and although the practice of medicine in South Africa is based upon a Westernised model, the healthcare system users are not always familiar with this manner of practice. The relevance of such guides within a different socio-cultural context has not been adequately studied. Therefore, this study seeks to examine these techniques in more detail, relate them to the socio-cultural context and suggest possible adaptations where necessary.

3.4 Concluding Remarks

This chapter has highlighted the second central theme of this thesis – that of communication. It explores communication as a social phenomenon that occurs within a specific context and the need to understand communication as a social activity.

An exploration of research in the field of health communication highlights the social nature of communication but moreover hints towards the manner in which meanings are constructed. In addition, it has shown how meanings may change depending on the contextual environment in which it occurs. From this overview of the commonest methodological techniques in health care research, three main conclusions can be drawn. Firstly, a sound theoretical viewpoint should be established that will allow for constructionist analysis of the data. Secondly a combination of data collection methods is required to enable all voices to be heard and to give credibility to observed behaviours. Thirdly, the process of analysis should be aligned to the methods of data collection and theoretical viewpoint to allow for an enhanced understanding of the interactions and quality of data produced.

The need to adapt these findings in the teaching of communication thus becomes relevant. As medical education is adapting to become more socially relevant, so too is the notion of a "medical expert" being challenged. Various other competencies are being suggested to enhance the ability of the medical expert to translate the science of medicine into an art that is understood within the community in which medicine is practiced. Undergraduate medical education has begun incorporating these competencies, including that of a communicator, into teaching practices.

This study aims to explore the overlap between the clinical entity of diabetes and the role communication plays in its management. With a growing tendency in clinical medicine towards the co-construction of the consultation and the focus on communication interactions, it becomes necessary to consider these aspects when designing the appropriate methodology. The next chapter will describe how such methods were developed to draw attention to the constructional nature of the consultation within a specific context. In this way the study hopes to provide objective evidence as to the implication for management of diabetes.

PART 2: STUDYING COMMUNICATION AS A SOCIAL CONSTRUCT

CHAPTER 4: METHODOLOGY

4.1 Introduction

The purpose of this chapter is to reflect on the methods used to collect and analyse data. Any qualitative research methodology aims to make explicit issues around paradigmatic, theoretical frameworks and decisions made around study sites, participant selection, data collection methods and analysis of findings. Qualitative work also places deep emphasis on issues around validity which although are profoundly different to those of quantitative work, are equally as important.

Given the complex and unpredictable nature of a study "variable" such as communication it becomes clearly evident that approaches beyond the confines of positivism are required if one is to make sense of and improve communication. This study called for a qualitative approach. The adoption of qualitative work in a study around communication may uncover and understand the nature of communication and the interpersonal relationships between doctors and their patients which may have been lost, overlooked or diluted in quantitative research designs. Qualitative research is useful as it allows the collection of everyday evidence of participants that describes their lived experiences (Denzin & Lincoln, 2005). Qualitative work also explores the nature of relationships and how they are formed and in what way they may influence disease outcomes (Mays & Pope, 1995; Vermeire et al., 2007). Importantly, qualitative works looks beyond the direct causal relationships of outcomes and explores individualised issues such as the motivations and perceptions that underlie behaviour. These inherently personal issues are discussed by Britten (2011) who explained the value of researching them in uncovering explanations of phenomena as well as being able to develop new ideas and theories on a topic. It is this qualitative design that is required in conceptualising and understanding the opportunities and challenges of communicating around diabetes in a developing world context. Qualitative work is required if we are to make a significant

change to the way in which we translate excellent biomedical and clinical knowledge into favourable disease outcomes for our patients.

Emerging from the previous chapters, diabetes presents itself as a valuable chronic disease to consider communication within approaches to management with a view to improving adherence and health outcomes. The previous chapters also highlighted approaches used to study communication relating to adherence in chronic disease management and the methods which were employed to study medical and communication interventions. Prior research, for example around the CCCG, could be viewed as focusing exclusively on researching communication training models which favour an essentialised, standardised checklist approach to conducting and evaluating interactions (including communication). The CCCG was instituted in a developed world scenario and has been imported, largely unchanged and unstudied into a developing world context. This study does not devalue or criticise methods such as the CCCG, the study simply offers new opportunity to study communication in a new way in a new context. Ongoing study of communication in diabetes in context is necessary as diabetes is a disease which involves a multipronged approach, including biomedical knowledge and lifestyle changes as part of management. As such, a checklist approach may thus have severe limitations. Communication which considers the worldview, culture and socio-economic background of doctors and their patients in a developing world context becomes relevant.

Given that this research was conducted by a medical practitioner and will be read by healthcare professionals, including medical practitioners, there is a need to describe issues around qualitative work. In particular, discussions around paradigms and decisions made around paradigmatic selection, must be included. In doing so, the intention in no way aims to undermine or discard positivism and quantitative work that is traditionally associated with medical research. Quantitative research has proved to be instrumental in testing efficacy of interventions and therapeutic options, of providing detailed information about issues such as a relative risk of diabetes in the face of other co-morbidities and in determining the most effective medication doses and regimens to use for patients (as discussed in detail in Chapter 2). Over the last few decades, such research has formed the backbone of advances in chronic disease management and has fundamentally changed the way in which diabetes is medically managed. However, positivism and quantitative research do have significant limitations. In particular, they seek a distinct, knowable cause and measurable effect. This is of use if one is studying, for example, does insulin lead to a reduction in complications associated with diabetes - Yes or No? However, people with diabetes are people and as such have idiosyncrasies, quirks and important issues such as communication need to be individualised and reflective. There is no direct quantifiable cause and effect with communication. We cannot say we communicated with the patients therefore their adherence to medication will improve. In a non-linear, complex, interwoven, multifaceted issues such as communication, the researcher looks beyond positivism, quantitative and associated work.

The chapter has several specific purposes. Firstly, it describes the Health Communication Research Unit (HCRU) at the University of the Witwatersrand (Wits), Johannesburg as supervisors for the study were based here. Secondly, the overview is provided of specific aims and study objectives. Thirdly, paradigms and theoretical frameworks are discussed in detail. Fourthly, an overview is provided around decisions made on study sites, selection of participants, data collection and data analysis. Finally issues around validity and potential ethical challenges are outlined.

4.2 Health Communication Research Unit

This study was supervised by academics from the Health Communication Research Unit (HCRU) at the University of the Witwatersrand (Wits), Johannesburg. The HCRU was useful as it diverts from the biomedical and is based in the School of Human and Community Development. It incorporates a multidisciplinary team who conduct research within the multilingual and multicultural environment of South Africa. As detailed in Chapter 3, research carried out in the HCRU has provided valuable insight as to the methodological and analytical methods relevant to health communication studies in South Africa.

4.3 Aim and Objectives

The primary aim of this study was to explore communication within the doctor-patient relationship and the various components of this relationship. An emphasis is on communication in diabetes management with a view towards contributing to a body of evidence around communication in a therapeutic relationship in the management of the disease. A therapeutic relationship (consultation) was used as the basis for investigating communication between doctors and their patients within the contextualised socio-cultural environment in which the consultations occurred. The selection of diabetes study in KZN was a specific intention of the study as the prevalence of diabetes is high and communication research is scarce.

A secondary purpose was to explore communication within a consultation using a theoretical perspective. A theoretical perspective is often absent in positivist, quantitative work and is required to make sense of or alter existing theories and literature. Finally, this study aimed to inform the development of further research, improve clinical practice and shape communication curricula in medical education.

Specific objectives were thus:

- To describe the nature of communication within the doctor-patient relationship as it occurs in the consultation;

- To explore specific communication techniques which may contribute towards the positive (or negative) construction of the interpersonal relationship;

- To explore the role of contextualised or socio-cultural factors in communication as affecting interpersonal relationships;

- To describe how communication through the interpersonal relationships may influence the patients' perception of their disease and how this in turn influences their behaviour and management of the disease.

The goals of this study were therefore

- To enhance the current scientific knowledge of diabetes management

- To contribute to the knowledge base on communication, specifically within the therapeutic relationship, in the context of a chronic disease of lifestyle

- To guide further research in this important topic

- To contribute to best practice models of communication as taught in medical education.

The literature reviewed in prior chapters, demonstrated the complexities of diabetes, the illness and the management thereof. Literature also demonstrated the importance of communication as central to patient care. The South African context, and in particular the diversity within the province of KZN, provides a unique context and additional, perhaps unique, challenges to communication between doctors and patients which have not been previously explored.

4.3 Paradigms & Theoretical frameworks

As previously alluded to, it is unusual for a study carried out by a medical practitioner to employ qualitative methods. Any qualitative study must describe the paradigm or point of view where it is sited. Generally, in medical research a positivist paradigm considers that issues such as biases and confounding factors can be controlled so a predictable outcome from an intervention can be assured. The positivist aims to produce a generalisable intervention and research considers issues of sampling for randomisation and validity for replicability and generalisability.

In contrast to positivism, other paradigms are not overly concerned with viewing the world as always behaving in a certain way in certain circumstances. Other paradigms aim to consider objectivity, quirks, choices and the individuality of the doctor and her patient. As such, I could have selected several paradigms for this study.

Previous chapters have summarised some of the pertinent literature in diabetes research which has, until recently, been very much positivist and biomedical in nature. Some qualitative data has begun to highlight possible socio-cultural and interpersonal factors that influence diabetes management. This led to an exploration of literature in health communication in general. Again, multiple methodologies were reviewed on this subject in Chapter 3. In exploring past results in health communication, a discussion follows outlining the key objectives and goals of this study and explaining underlying thought processes in the selection of the methodology.

As a first example, a critical paradigm would have considered issues of power imbalances in communication within a consultation. The question asked within a critical paradigm would be, for example, is communication affected by relative power of the doctors and relative disempowerment of the patients? Is the patient too frightened to ask the doctor questions? A critical paradigm is essentially a political point of view and may seem useful in post-apartheid South Africa where there are still great discrepancies in power and social justices. A pivotal aim is to make issues of disempowerment and repression come to light. In the vein of a critical paradigm, I could have also placed the study within a feminist paradigm and considered whether communication was affected because a doctor is a male and a patient is a female.

I fully acknowledge the necessity of such work however the intention of this study is not to focus on issues around hegemony. It aims rather to look at factors such as a doctor communicating the biomedical nature of a chronic disease to an African patient who may not have a biomedical outlook on the world.

As a second example, the study could have also employed an interpretivist paradigm. Such a paradigm developed as a critique of positivism in the social sciences. In general, interpretivists share the following beliefs about the nature of knowing and reality.

- Relativist ontology: this assumes that reality as we know it (or patients know it) is constructed inter-subjectively through the meanings and understandings developed socially and experientially.

- Transactional or subjectivist epistemology: this assumes that we (or our patients) cannot separate ourselves from what we know. The researcher and the participants are linked such that who we are and how we understand the world is a central part of how we understand ourselves, others and the world

In an interpretative paradigm, pragmatic and moral concerns are important considerations when evaluating interpretive science. Fostering a dialogue between the researcher and participants or respondents is critical. It is through this dialectial process that a more informed and sophisticated understanding of the social world can be created. All interpretations are based in a particular moment. That is, they are located in a particular context or situation and time. They are open to re-interpretation and negotiation through conversation. An interpretivist paradigm would consider a question around, for example, what does diabetes mean to you (the African patient)? The researcher would continually reflect her own interpretation of findings back to the participant. Is this what you mean? Am I understanding this data in the way you wanted it to be understood? This paradigm is essential when an outsider wishes to deeply understand the worldview of participants and involves lengthy methods of collecting and analyzing and re-analysing data.

The intention of this current study was not to fully interpret and understand the worldviews of African patients. It was rather to assess the nature of communication within a doctor-patient consultation and thus this paradigm was not selected.

A third example of a potential paradigm for this study rested in ideas around social constructionism. As with most paradigms, beyond positivism, the theoretical perspective of social construction explores the world as lived experiences (Holstein & Gubrium, 2011). Social constructionism or the social construction of reality (also a social concept) is a paradigm that examines the development of jointly constructed understandings of the world that forms the basis for shared assumptions about reality. The paradigm centres on the notions that human beings make sense or rationalise their experiences by creating models of the social world and share and reify these models through language. A social construct, or construction, concerns the meaning, notion, or connotation placed on an object or event by a society, and adopted by

the inhabitants of that society with respect to how they view or deal with the object or event. In that respect, a social construct as an idea would be widely accepted as natural by the society, but may or may not represent a reality shared by those outside the society, and would be an "invention or artifice of that society. In a social constructionist paradigm, the research question may be, for example, what does traditional Zulu medicine for diabetes mean to these patients within this particular group or community?

The above discussion indicates that there are many paradigms which are useful depending on the research question. They all have uses and limitations. In this study, the data had to serve a distinct purpose: It had to be useful to guide clinical practice of communicating within a therapeutic consultation. The therapeutic consultation does not demand knowing all there is to know about a patient; it does not demand that systems of medical hegemony be dismantled within the consultation; it does not equate only to the researcher fully learning what the patient and the community understand by diabetes within their social constructs. As such, although this study adopts a mostly social constructionist approach employing methods of conversation analysis (inspired by ethnomethodology), video analysis and ethnographic analysis, it cannot be viewed as purely embedded in this paradigm.

4.4 “Pilot study”

Qualitative work does not usually involve pilot studies as pilot studies are usually carried out to assess whether issues such as data collection instruments in quantitative work are valid or not. However, given the newness of the approach of this current study, a type of “pilot study” was undertaken at a specialised diabetes centre in Zululand, KZN, prior to the finalisation of the research protocol. This “pilot” involved a FGD with an information-rich group of six patients who had diabetes. The information they gave was required to fine tune the study protocol with regards to factors around their experiences of diabetic health care services, their relationship with HCPs and their chronic disease management. This “pilot study” yielded very similar results to the qualitative study conducted by Murphy et al. (2015) in patients’ experiences of the South African health care system patients with chronic disease where it was found that current approaches to chronic health care were falling short of patients’ needs and expectations.

In this initial, information gathering FGD, a very broad interview schedule was utilised with a view to understanding the experience of patients on the management of their diabetes. Patients/participants directed the conversation to topics that they found relevant but were probed specifically around issues relating to interpersonal relationships and communication. The FGD was audio-recorded, transcribed and a thematic analysis undertaken. The value of such a “pilot study” was that it allowed for the refinement of the research goals, gave insights into which patients should be specifically excluded or included and allowed for informed adjustments to the final interview schedule. Further information and findings from the pilot study are detailed in Appendix A.

Findings from the FGD, guided the researcher to focus attention on communication and the nature of the doctor-patient relationship and its role in diabetes management rather than the broad topic of relationships with all HCPs. An intention to focus exclusively on communication within the doctor-patient consultation was made as patients alluded to the uniqueness of this relationship as opposed to nurse-patient or pharmacist-patient interactions.

4.5 Research Setting

As outlined in Chapter 3, although research has been conducted in the field of doctor-patient relationships and the role of communication, there is not a great deal of research specifically focused on the management of diabetes in this regard. In addition, the literature discussed in Chapter 3 reveals very little focus on the contextual and socio-cultural environment and potential influences this may have on communication and interactions. There is in particular a scarcity of research on communicating within a diabetic consultation in a developing world context, such as South Africa. It is for these reasons that a population was chosen for study which had not been previously studied.

4.5.1 Research Sites

The research took place within the province of KZN, South Africa. The researcher wanted to incorporate sites that reflected different areas within the province thus incorporating rural and urban hospitals from different geographical locations as well as hospitals that represented different cultural and ethnic groups in the province. Initially three urban hospitals were approached but two of these hospitals declined due to staff shortages resulting in temporary staff within the clinic and inappropriate physical space in the clinic limiting data collection respectively. Of the rural hospitals approached, many did not have a dedicated diabetic clinic. Thus the sites identified were a district/regional hospital in the eThekwini health district and a more rural district hospital in northern KZN. The selection of these two sites also allows for some comment on the context of the delivery of services and for comparison and contrasting between the two sites.

Site 1 is both a regional and district-level hospital and is situated within a suburb of Durban that was historically demarcated for Indian residents. The hospital still serves and is utilised by a majority of people of Indian descent. The diabetic clinic is staffed by both specialist and generalist medical staff. Patients attending the clinic require referral from the general medical out-patient department. Consultations occur predominantly in English. Further information on the site can be found in Appendix B. Site 2 is a district hospital located in a rural town in northern KZN. The hospital is staffed purely by generalist doctors and receives patients from the surrounding community and local clinics. The majority of patients attending

the hospital are isiZulu speaking. Consultations occur almost exclusively in isiZulu. Further information on the site can be found in Appendix C.

Thus it is acknowledged that these sites do differ in terms of their geographical and demographic populations and as such cannot be directly compared although this is not the primary intention of qualitative work. The diversity of the study sites did provide rich contextual information in differing contexts.

The researcher previously conducted other research studies at both sites and was acquainted with managerial staff at the time of this study. The researcher had also previously worked at Site 2 and worked with the clinical staff for some time. The position of the researcher was foregrounded in Chapter 1 and will again be discussed in this chapter.

4.5.2 Study Participants

Any qualitative work must describe the participants in some detail. This is required so the reader can make sense of findings and in particular make decisions around whether the findings of qualitative work could be considered in the readers` context or not. There however, has to be some balance between what the researcher choses to disclose about the participants to the reader. Although the reader needs to know about the participants, she must not be able to identify participants. As an example, in deductive disclosure, a reader leans too much about a participant so they come to know who that participant is. In this current research involving communication the participants were an information rich source of doctors and patients.

4.5.2.1 Doctors

Three doctors were invited to partake in this study and all agreed. These doctors were regarded as a potential information rich source as they worked with diabetic patients in clinics. Not all had specialist, postgraduate training in diabetes. Although the participants had no specialised training in diabetes, all had worked for several years in clinics and were known to the patients who attended. Table 4.1 summarises the demographic characteristics of the doctors, as well as their clinical experience and language proficiency.

Table 4.1: Demographic details of doctors participating in the study

	Site	Gender	Ethnicity	Job description	Years' experience in current position	Language ability
DrR1	1	M	Indian	Principal specialist	>15years	English – 1st language isiZulu – minimal
DrR2	1	F	Indian	Senior specialist	<5 years	English – 1st language isiZulu – minimal
DrE	2	M	White	Medical officer	>15 years	English – 1st language isiZulu – good proficiency

Neither participant at Site 1 was able to converse proficiently in isiZulu and thus relied on the assistance of an interpreter at times. The staff nurse in the clinic responsible for general administration and basic patient care fulfilled this role on an *ad hoc* basis.

The doctor at Site 2 is personally known to the researcher having worked at the same hospital intermittently for ten years. The doctors at Site 1 are also known to the researcher on a collegial basis as they are involved in similar clinical work and meet at regular clinical and academic functions. In selecting the sites, the researcher approached the doctors concerned with the intended protocol and discussed the potential implications of the study and ensured they were fully briefed prior to giving consent.

4.5.2.2 Patients

This study was aimed at understanding communication and the nature of doctor-patient relationships within the context of diabetes. Potential patient participants were thus sourced from those attending the diabetic clinic at each site.

Inclusion criteria were that the patient had to be over 18 years of age and on oral or injectable medication for Type 2 Diabetes Mellitus for at least six months prior to the study and collecting medication at that specific hospital. The reason for this was to exclude newly diagnosed patients who had not yet had time to experience many communications within a relationship with their HCP. In newly diagnosed patients an emphasis may around information sharing about biomedical issues. Participant English language ability or language preference was not an exclusion criterion.

A total of twenty-four patients elected to partake in the study. Table 4.2 provides a summary of characteristics of these participants. To avoid potential deductive disclosure and assure anonymity,

patient names are not used. Other identities which may lead to disclosure have been removed and patients are referred to using sequential numerical identifiers. These identifiers are allocated in sequence as they attended the clinic at each site. Patients will be referred to by these unique identifiers throughout the study. Site 1 included six consultations where each doctor consulted with three patients. Each doctors' consultations were recorded on separate days as consults occur concurrently. All Site 2 consultations were recorded on a single day using the only doctor who routinely works in the chronic clinics. The depiction of the participants in the study as listed in Tables 4.1 and 4.2 may seem incongruous in the light of the argument presented in previous chapters about the complex nature of how people define their own cultural affiliations. These tables are presented as only a preliminary means of describing the participants and will be reconciled in the closing chapters of this thesis.

Table 4.2: Demographic details of the patients participating in the consultations

Site	Patient consult	Doctor	Age	Gender	Language	Ethnicity
1	R1	DrR1	37	F	isiZulu	African
	R2	DrR1	42	M	English	Indian
	R3	DrR1	31	M	English	Indian
	R4	DrR2	18	F	isiZulu	African
	R5	DrR2	50	F	English	Indian
	R6	DrR2	47	M	English	Indian
2	E1	DrE	50	F	isiZulu	African
	E2	DrE	57	F	isiZulu	African
	E3	DrE	47	F	isiZulu	African
	E4	DrE	68	F	isiZulu	African
	E5	DrE	62	F	isiZulu	African
	E6	DrE	46	M	isiZulu	African
	E7	DrE	78	M	isiZulu	African
	E8	DrE	63	F	isiZulu	African
	E9	DrE	52	F	isiZulu	African
	E10	DrE	66	F	isiZulu	African
	E11	DrE	58	F	isiZulu	African
	E12	DrE	52	F	isiZulu	African
	E13	DrE	45	M	isiZulu	African
	E14	DrE	50	F	isiZulu	African
	E15	DrE	75	F	isiZulu	African
	E16	DrE	56	F	isiZulu	African
	E17	DrE	47	F	isiZulu	African
	E18	DrE	73	F	isiZulu	African

4.5.2.3 Research Assistants

Two research assistants were utilised and played a vital role in data collection and preparation for analysis.

The first assistant (NM) led FGDs where the researcher felt inadequate due to lack of language competency. She is experienced in leading FGDs and has a master's degree in research psychology allowing her to appreciate the complexities and challenges of such a methodology. Prior to the interviews, the researcher met with NM and discussed the field of study, the aims and objectives and the specific role that the FGDs would play. They also discussed entry into the site, presentation of the study to the participants and how issues such as bias and assumptions would be dealt with. The interview guide was discussed and attention to how questions would be phrased, areas of prompting and how to encourage equal participation from all members of the group. After the FGD, the researcher and assistant again met to discuss the process of the FGD. NM was also able to assist with verifying the transcriptions and back-translating the data, including the consultations and FGD transcripts, having been present in the interviews and being a first language isiZulu speaker.

A second data assistant (SC) was utilised to transcribe and translate the audio-recorded data from the FGD and consultations. This assistant is a first-language isiZulu speaker and has experience in data transcription in the field having done previous work for the researcher as well. Translations and transcriptions were verified by the research assistant (NM) and the researcher independently, contributing to reliability of the data.

4.5.2.4 Researcher

As presented in Section 1.4.4, the researcher is keenly aware of her role both as an "insider" and an "outsider". Throughout the data collection and analysis phases, care has been taken to make this position explicit and acknowledge the influence she has within the study.

4.6 "Sampling" Considerations

In qualitative work, the researcher does not usually refer to her participants as a "sample." Such terminology is usually confined to quantitative work. A sample is rather discussed as a group of participants. The relevance of sample size in qualitative research is this greatly debated especially for

example within the framework of social constructionism where it is recognised that social life consists of interactions rather than structures (Littlejohn & Foss, 2000, pp. 45-46).

In quantitative work, sampling is important as a primary aim is to reduce differences so the findings or results from one experiment may be generalized to other populations. As such, a quantitative worker must consider issues such as potential bias and elimination of confounding factors. To allow generalisation. a sample must be selected at random and must be large enough to allow smoothing out of differences. Issues of random section of sample or large enough sample size are not generally considered in qualitative work. Indeed, a qualitative researcher aims to study a specific (non-random) selection of people in great depth.

In this current research, the aim was to explore communication and not to be able to standardise to generalise the results to a larger diabetic population. One way to determine "sample size" in qualitative work is to interview until "saturation." Saturation occurs at a point when the researcher considers that no new data/phenomena will occur despite further interviewing of participants (Sandelowski, 1995). In this current research, the aim was to begin to explore communication within a consultation and thus the number of participants interviewed was not a priority. The aim was rather to generate a wealth of data from a diverse group of information-rich participants.

Although a study aim was not to introduce sampling to gain generalisable information, the researcher did use several means to enable data to be as rich as possible. The study sites were selected to introduce the diversities of consultation between geographic varied sites. Doctor-participants were Asian, White, urban, rural, with differing experiences of working with diabetic patients. Doctors who were working at a temporary basis at clinics were excluded. Patients were selected only if they had a long experience with attending clinics and were not excluded because they did not speak English. Both study sites have designated days and times when patients with various chronic diseases are specially attended to. The researcher took time to find out about these dates and times so potential participants could have time to discuss the study and decide whether they wished to participate or not. Data were collected at times that suited the participants. As a specific example, data generation which involves focus group discussions (FGDs) took place at a time outside the participants' medical consultation times. Patients were asked by the research assistant to volunteer to participate in the FGD. The first six to eight volunteers were then selected. Those who offered to take part in the study had their places in the queue kept for them and as far as was possible, their administration of future bookings, return to the queue and collection of medication was facilitated by the researcher and hospital staff. As a result of attention to the lives of potential participants and to minimising any potential disruptions to their lives, the resultant data gained were rich, varied and presented a wealth of information around communication in the diabetic consultation.

4.7 Data Collection Methods

4.7.1 Overview

Any qualitative work describes the methods used for data generation. As an aim is usually to explore or to understand data, the methods used are usually different to those of quantitative work. A primary aim of this current study was to explore communication within the therapeutic relationship of doctors and patients within context. A discussion around paradigms revealed the limitations of paradigms and a decision was made to focus on study methods of conversation, video and ethnographic analysis. Such methods are said to lie beyond paradigmatic considerations.

Data collection methods were fourfold. Firstly, the researcher carried out ethnographic observation an all participants. Secondly, consultations between doctors and patients were observed and recorded at each site. Thirdly, patients were interviewed using a FGD. Fourthly, doctors were interviewed. Data generation was thus through:

- Ethnographic observation
- Audio-video recordings of communication within doctor-patient consultation
- FGDs with patients
- Interviews with doctors

Figure 4.1 below provides a temporal overview of the process of data collection, the various components of this are discussed further in the text.

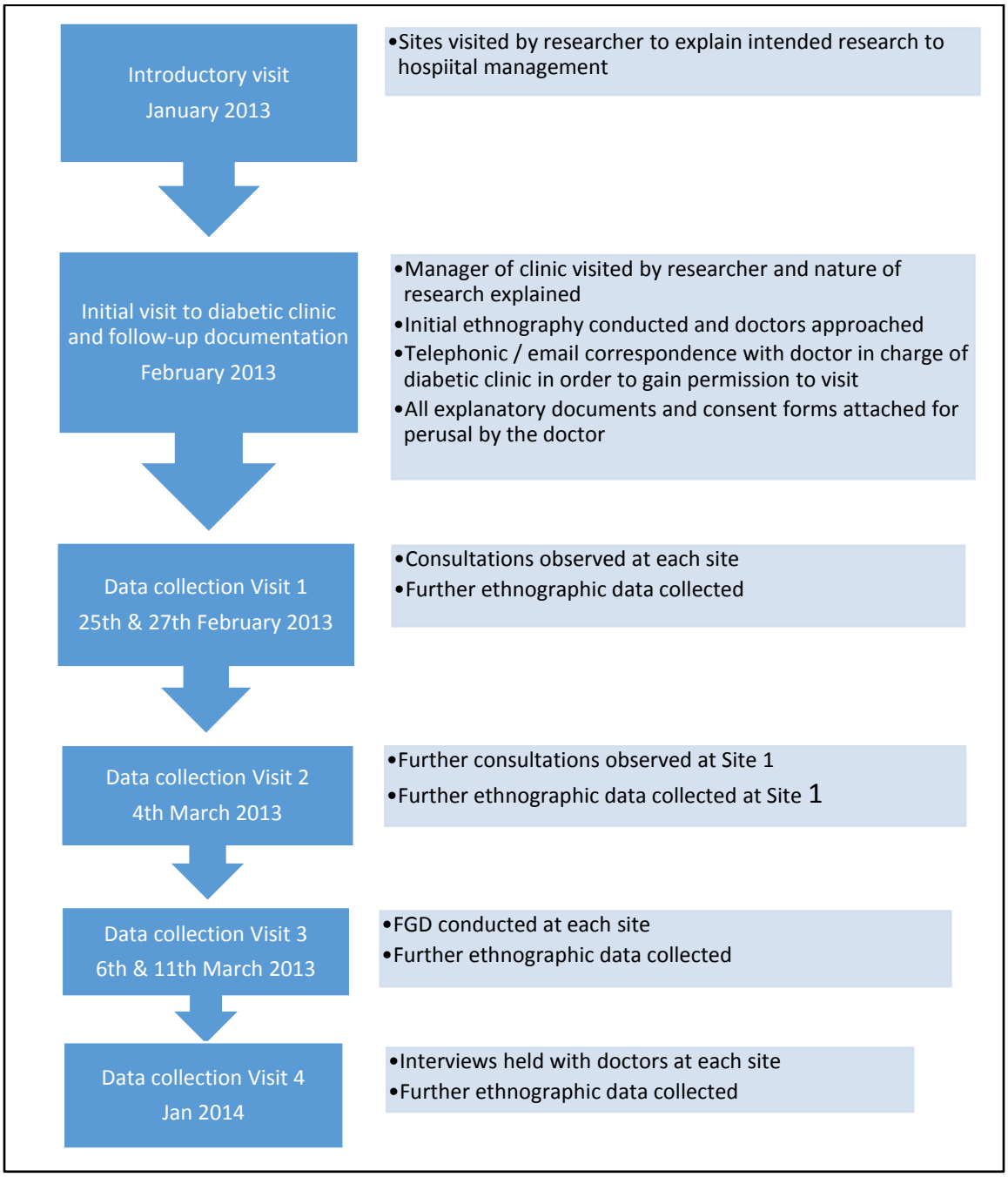

Figure 4.1: Graphical representation of the stages of data collection

4.7.2 Ethnographic Observations

A first method of data generation was ethnographic observation. This study aimed to consider the context for communication and thus ethnographic observation would be a useful for the researcher and reader to gain insight into the lives of participants.

Both the researcher and the reader will gain insight from exploring the ethnography of participants. Ethnographic data were collected using field notes and recorded by the researcher in ongoing stages of the research. The process involved firstly an introductory visit to each site. Follow up visits expanded on initial notes as more and more data emerged during visits, observations during consultations, during FGD and during reflections which were made within 24 hours after each visit.

Tools for generation of "etic" or "outsider" ethnographic descriptions were varied and included observations of the surroundings and of interactions that took place, photographs, field note-taking as well as informal interviews with staff in the diabetic clinic. Such data generation methods are acknowledged in literature (Brewer, 2000). Observations were made around the following, the flow patients through the clinic and clarification of the roles and activities of various HCPs within the clinic. Etic data was further obtained through a video recording which was held at Site 2. Video recording as described below was not possible in Site 1 due to space limitations. Data was obtained around factors such as facial and body postures and other non-verbal cues. This ethnographic observation data notes were not analysed separately but were used in conjunction with other data analysis in order to explore and describe ethnographic considerations which were important when communicating in diabetes. Importantly, an "emic" or "insider' perspective also formed part of the generation and analysis of ethnographic data and was achieved through the researcher having over ten years' work experience working in a similar environment and further experience as a researcher conducting research at the same sites.

4.7.3 Audio-/video-recording of communication within consultations

A second method for data generation was audio/video recording of doctor-patient consultations. As the primary source of data in this study, these audio- and video-recordings of consultations were aimed at understanding communicative behaviours that formed part of diabetes management within the context in which they were recorded. Data were collected on sequential visits to each site over a period of three weeks. Participants were doctors in the diabetic clinics and patients who were attending the clinic for regular follow-up visits. This recording of consultations took place independently of any other data collection and all consultations were faithfully recorded in the manner and language in which they occurred naturally (i.e. no external interpreter was utilised by the researcher during the consultations.

Only hospital staff members acting as interpreters and requested by the doctor or patient during the consultation were utilised).

At both sites, patients waiting in the common area outside the consulting rooms, had the nature of the study explained to them by the researcher and again by the research assistant in isiZulu, if necessary. Thereafter, any patients who did not wish to be part of the study were directed to see other doctors available in the clinic. Those who agreed to form part of the study then had further details explained to them and individual consent taken. The researcher was available to answer questions individually or to a group of potential participants as a whole. Once consent had been obtained, the researcher then directed the patients to the consultation rooms to be seen by the participant-doctors where the audio/video-recorders had been set up.

Video-recording at Site 1 was not feasible due to multiple doctors sharing a single consultation room. Thus, consultations were audio-recorded and field notes were taken by the researcher during the consultation with regard to visual data including non-verbal communication and other environmental observations. The audio-recorder was left running throughout the consultations. Both patients and doctors were aware of the recorder and had previously consented to being part of the study. This process was repeated on two different days, with observations continuing until all patients had been seen or there were no further patients willing to take part in the study. Six consultations were recorded, giving approximately 100 minutes of consultation time.

At Site 2, the camera was set up on a tripod in such a way that both doctor and patient could be visualised but where it would not be obstructive within the consultation. The camera was left running throughout the morning in order to capture consultations. An audio-recorder, placed on the desk, was utilised in conjunction with the video-recorder as a back-up for the sound recording due to the video recorder being some distance away from the speakers. This audio-recorder was also left running throughout the consultations. Eighteen consultations were recorded over a period of just over 60 minutes.

4.7.4 Focus Group Discussions (FGDs) with Patients

A third method of data generation was FGDs with patients. Merton, Fiske and Kendall coined the phrase “focus group discussion” in 1956 referring to specific questions that were asked of a group of participants about a specific topic with the aim of confirming previous research findings. Since then, FGDs have broadened to include less structured questioning techniques and to collect data on topics where not much is known (Kamberelis & Dimitriadis, 2005). These purposes are described as being exploratory, confirmatory or to triangulate existing data. They have now become a well-documented method of data collection in qualitative research. As Fontana & Frey (2000) describe how these group interviews can

provide a depth of data and perspective that is not possible to achieve with individual interviews, their value is widely respected.

In this study, FGDs were used to gain important data around patients' perspectives of the doctor-patient communication within a consultation. FGDs also importantly offered an opportunity for the researcher to be able to discuss observations she made while analysing audio/video and ethnographic data. The research assistant (NM) who conducted the interviews was trained in leading such discussions. She was chosen as she was an "insider" to the world of the participants. The researcher felt unable to hold FGDs as she may be considered as an "outsider." Using an insider to facilitate FGDs was in keeping with the principles outlined by Fontana and Frey (2000), that is the facilitator is able to pay due attention to allowing all participants an equal opportunity of contributing. This process involves inviting more silent participants to participate and limiting the contribution of more dominant participants. In addition, an insider would be aware of the broad objectives of a FGD yet still display empathy where appropriate to draw out stories, repeat and summarise stories in order to ensure a deep consensus and perhaps communal understanding.

The FGD was conducted in the language of choice for the participants by a research assistant. The discussion was held whilst patients were waiting to see the doctor so as not to inconvenience or delay them by increasing their time spent in the hospital. The participants were generally different to those who were involved in audio-video taped consultations. They could not therefore reflect on the consultations directly however, they could be used to verify, refute, discuss, debate issues uncovered by the researcher during a preliminary analysis of data.

The interview guide used during these FGDs was developed from themes uncovered during the "pilot study" and focussed on participants` opinions, views or perceptions of their health care, their interactions with their doctors and the way in which they managed their disease. Copies of the information document and the FGDs interview schedule are included in Appendices D and E respectively.

A disadvantage of FGDs (as with many other forms of data generation) is that participants may give a version of the "truth" that they wish the interviewer to hear. This may be for varied reasons, including preservation of self or wanting to please a person perceived to have greater power or social standing (Schneider & Palmer, 2002). This effect was felt to be somewhat mitigated in this research by employing a facilitator / research assistant who was perhaps able to identify more with the patients and lead discussions than the researcher.

Data generated from FGDs were used in combination with other sources in order to enhance credibility and this is discussed more fully under issues of validity. As mentioned above, a disadvantage of FGDs is

that stronger participants may dominate the conversation and for minority or quiet views not to be heard. This disadvantage was reduced because the facilitator was a Zulu lady and fully trained as a facilitator in FGDs. She was present not only to guide discussion but also to ensure that all voices were heard and where necessary, would allow quieter individuals to express their opinion if it had not been adequately heard. She enquired regularly if participants agreed with general sentiments expressed so that individual and group sentiments could be distinguished.

4.7.5. In-depth Interviews with Doctors

A fourth method of data collection involved interviews with doctors. Fontana and Frey (2000) describe the purpose of individual interviews to enhance data about general topics and to understand behaviours. It is a popular method of data collection in qualitative research that can involve either structured or unstructured interview guides. The main purpose of such interviews is to gain participants' views and perceptions on a specific topic and/or to confirm findings from observational data analysed by the researcher.

Following a preliminary data analysis, of ethnographic observation, audio/video recorded consultations and FGDs, the researcher realized that doctors were an important and missing source of data. Communication is a two-way process and the research could not be complete without the voice of a doctor. Interviewing doctors could assist with verification and deepening understanding of other data. This preliminary analysis of data to encourage further data collection had the advantage of allowing the researcher the opportunity to confirm and clarify existing data and hear a new voice. This process of adding potential data sources is recognised in literature (Pope, Ziebland & Mays, 2000).

Doctor interviews were conducted by the researcher as it was felt that as a medical doctor herself, she would be able to gain the trust of other doctors and emphasise with their potential challenges in communication.

The interviews with the doctors were held almost 12 months after the initial data collection and thus, although the researcher was aware of the consultations that had occurred participants-doctors themselves could no longer recall the specific details of patients they had communicated with. Specific mention was made that the purpose of the interview was for the doctors to give an account of their experience in communicating and establishing a therapeutic relationship with their patients rather than deepen an existing an analysis of the audio-video recorded consultations. The interview guide was developed and presented for ethical clearance and served only as a broad guideline to gain doctors' perspectives on facilitators and barriers to communication. Their voices were essential in considering data around what communication they thought worked in patient care - What had not worked? What would

they do differently? Study Information Sheets and relevant consent documents (applicable to the doctors' interviews) are included in Appendices F and G.

4.8 Data Handling

Storage and retrieval of data forms an important part of ensuring the quality of qualitative data. A dual form of storage involved paper and digital copies of data being stored.

Ethnographic data in the form of field notes, photographs and diagrams were recorded with the site name and date of visit and filed accordingly for further analysis. These were also scanned and a digital copy retained. Audio recordings of consultations interviews and FGDs were stored in MP3 format on a central computer. Video files were stored in a similar manner as video clip files. All digital data was stored on the central computer and back-ups made onto an external hard drive located at a distant site. Data were labelled according to the date and method of data collection with separate directories created for each site. Eg:FGD-140313.mp3

Once the data processing began, weekly back-ups of the original and updated data were made on a weekly basis or on an *ad hoc* basis when significant changes were made. Copies of the audio-recordings were made available to the research assistant for transcribing and translating where necessary. Once the translated versions had been received by the researcher, they were then sent to a second research assistant for back-translation and verification. The researcher was also able to interrogate these translations herself.

Transcribed data was printed and stored in hard copy format as well as digitally where it was indexed according to site and date of data collection as detailed above. Where appropriate the language of the data was indicated in parenthesis after the file name. Digital transcripts were stored as Microsoft Word® files and were then able to be incorporated into Nvivo ® as required for further analysis.

A computer-assisted method of indexing the data was employed through the use of Nvivo ® in order to gain perspective of the large quantity of data initially. Sections of the transcripts were able to be highlighted and grouped according to themes as discussed in the data analysis below. These reports were stored in the same fashion as the original data with hard copies printed and stored as well.

Initial transcription of the data concentrated purely on the textual data obtained from the audio-recordings of the consultations. Once an interim report had been generated including general themes,

specific sections of text were identified for further analysis. Elements of analysis used in conversational analysis were utilised in order to understand the meaning behind the spoken words in more detail. This will be discussed in Section 4.9 below.

It is acknowledged that a great amount of data reduction is required in order to translate the audio and visual data into textual data suitable for presentation (Perakyla, 2005). The steps taken during this process and the constant comparison with other data sources hopes to enhance credibility of this process and contribute to the rigor of the data analysis

4.9 Data Analysis

Each source of data was initially analysed independently and then cross-referenced to other sources of data, in order to triangulate the data and validate patterns of information that were occurring. The different types of analysis employed are described below. Data analysis was divided into various stages as described by Huberman and Miles (2002), in order to articulate the various elements of the data. Data were also presented to fellow postgraduate researchers, both in the field of health communication and in the general medical field at various stages of the analytical process. Specific data-analysis sessions were held with the research supervisor and other experts in order to specially analyse aspects of the data and obtain expert opinion where necessary.

4.9.1 Thematic content analysis

The process of thematic content analysis is described as initially reading through data, identifying broad themes, coding these themes, and then finally interpreting the structure and content of the themes (Guest, MacQueen & Namey, 2012). These themes may be explicit and describe emergent themes or more interpretative as they relate not only to the content but to the context of the data as well (Flick, 2006, pp.307-312). The advantage of this type of data analysis is that large quantities of data are able to be processed.

The purpose of using this type of analysis was to gain an overall perspective of the communication techniques utilised within the consultations as well as to be able to describe the nature of the relationships between doctors and patients and their respective perceptions. Once raw data had been transcribed, an initial thematic analysis of the data was undertaken by the researcher by reading each transcript to gain a basic understanding of the content. Thereafter, data was grouped into categories to look for relationships between different categories. An analytical approach was taken, whereby data were tabulated to display general trends and allow for conclusions to be drawn and missing data to be

identified. The purpose of these tables was not meant to mimic quantitative data in any way as it is acknowledged that the sampling is not representative of the general population in any way. Rather, these tables were meant to illustrate the various characteristics of the data. From these graphical representations, further in-depth meaning could then be sought from the appropriate data sources.

Initially, inductive coding was utilised to identify data that reflected the qualitative richness of the observations. This data revealed many features of the CCCG and thus the analysis became a more iterative process with both inductive and deductive coding being used simultaneously to analyse the data (Atkinson & Delamont, 2005). In this manner, specific information was able to be gathered according to the study objectives but additional, unanticipated themes were also able to be incorporated.

Thereafter, specific incidents were identified which were seen to represent sections of the data that contained multiple themes or that strongly supported or refuted a specific theme. This allowed the researcher to focus on smaller sections of data that yielded rich results.

Once the basic consultation data had been analysed in this manner, data from the transcripts of the FGDs and interviews was added to the consultation data for further analysis. Once again, an iterative analysis took place with themes emanating from the FGDs with patients and doctors' interviews used to augment and explain the content of the consultation data. Behaviours and phenomena identified in these interviews were compared and contrasted with results from the consultations and ethnographic observations. Any additional themes arising from the interviews were added to the initial themes derived from the consultations in an inclusive manner such as described by Pope et al. (2000).

4.9.2 Analysis of textual data

Flick (2006, pp. 319-320) described the manner in which natural-occurring data can be transferred into textual data for ease of analysis. Conversational analysis is concerned with the exploration of social interactions, how people behave, interpret utterances and make themselves understood through conversation. True conversational analysis as described by Ten Have (2007) describes making recordings of interactions, transcribing the audio material in terms of words and sounds and analyzing selected episodes for elements of turn-taking, sequencing, repair etc. Finally, the addition of non-verbal elements from photographic or field note taking can be added to the analysis. These sequences should be strictly sequential in nature and include a turn-by-turn analysis of the content of the speech (Flick, 2006, pp 320-324).

Whilst this method of analysis is in keeping with the aims and objectives of the study, a detailed study of intricate conversational details is not. Therefore, the researcher used elements of conversational analysis

transcription conventions to highlight some of the richness of the data presented. These included annotated text indicating intonations, pauses etc. In addition, annotations of non-verbal elements were added to the textual data from field notes and video-recordings. It is hoped that by using elements of such analysis, that the benefit of understanding the interaction in more detail will be gained without losing too much in the detail of the conversation. A glossary of the annotations used in analysing the findings in included in Appendix H.

4.9.3 Video analysis

Video recordings of consultations took place at Site 2. These recordings were watched repeatedly in conjunction with the consultation transcripts. Throughout each level of analysis, annotations were made from observations on the video to augment the meaning derived from the audio-recorded data. Specific information was sought where analysis of the transcribed text may not have given adequate information as to the meaning of the conversation or to confirm or refute evidence from the audio-data.

These non-verbal cues identified in the video and from field notes were annotated into the transcribed data. Such data are an important source of evidence as they are less easily controlled by the participant (Wood & Kroger, 2000). If such conflicts between verbal and non-verbal meaning occurred, they were analysed in the light of the greater context and with emphasis on interpreting the non-verbal cues.

4.9.4 Ethnographic analysis

In analysing the ethnographic data, the researcher aimed to describe the background of the setting in terms of the socio-cultural determinants as well as to gain a deeper perspective of the perceptions of participants in the study. In describing this setting, the grounds on which certain knowledge assumptions were made, were justified and validated. Comparison of ethnographic observations with those of participants also contributed to the validation of these perceptions. Field notes of observations, photographs taken of the sites as well as informal discussions with staff on site formed part of the ethnographic data upon which the researcher was able to reflect and analyse. This assisted in triangulation of the data and in providing explanations for deviant or negative cases.

4.10 Presentation of results

As the primary source of data, the results of the consultations are presented firstly in the form of a thematic content analysis. These data are presented both in terms of the content and process of how the

consultations are conducted. In addition, the actual duration of the consultations is included upfront. Although this is not an explicit aspect of the CCCG, the length of the consultation has considerable influence on how the consultation can be conducted and the way in which communication can occur. Major themes highlighting communication techniques described in Chapter 3 as essential elements of the CCCG are presented.

This study bridges the divide between clinical and sociological research with potentially important conclusions relevant to clinical practice and medical education. Therefore, the researcher felt that presenting the findings of in a way that is familiar to the readers and relevant to their practice, it would enhance the readability and relevance of the study. Where relevant, smaller sections of text are analysed in more detail to understand the deeper meanings within the context, highlight recurrent patterns of behaviour and identify resultant outcomes. A summary of the findings from the consultations allows for the presentation of additional data sources to be supplemented with these findings.

Chapter 6 will present the findings from the FGDs and interviews as they relate to the themes identified from the consultations. Patients' and doctors' views are presented independently and contrasted with findings in the consultations where appropriate. Data are presented according to the broad themes of exploring views on adherence, relationships and impact on management of diabetes. Summaries of both the FGDs and interviews are provided to enhance readability and contrasting of data. Ethnographic observations are used throughout the presentation of results to explain or support observations.

4.11 Quality of data

Ensuring quality of data in qualitative research is an important aspect of ensuring that data is of high quality and that the findings and conclusions drawn are justified. Various criteria are discussed below each of which contributes to the quality of the data presented.

4.11.1 Authenticity

In order to improve authenticity of the study and to understand the social phenomena and experiences that have been described in areas where little is known, a variety of methods of data collection were utilised (Power, 1998). Video and audio-recording of interactions between doctors and patients during consultations were used as the basis for analysis. These data were augmented with patient FGDs to facilitate exploration of their perceptions and experiences, in-depth interviews with doctors as well as ethnographic and descriptive observations (Pope et al., 2000). The various methods utilised to collect data were compared against each other and compared with data collected from other sources. Triangulation

of all data sources and comparison of these sources has added to the way in which the data were analysed and has been utilised previously in the exploration of patient perceptions (Mays & Pope, 2000).

Further authenticity of data was ensured by utilising research assistants who were identified and described in Section 4.5.2.3 above to assist both in data collection and transcription. Once data had been transcribed and translated, it was given to an independent assistant fluent in isiZulu to back-translate the transcriptions and correct any errors. The researcher also has a fair understanding of isiZulu and was thus able to identify and discuss any potential errors in the transcription and translation.

4.11.2 Rigour

An important part of qualitative data is ensuring that the conclusions are based on rigorous analysis. This has been done in a number of ways. Firstly, the researcher made herself familiar with the content of the raw data reading the transcripts on various occasions and consulting with colleagues to assist with understanding of the data. Notes and annotations were made on the transcripts that showed initial analysis of the data and these too were discussed and presented to colleagues. An initial thematic analysis was carried out that inductively coded the data as themes appeared. These categories were then compared to previous studies and validated communication techniques known within the field. Certain communicative techniques and processes that had previously been described to be facilitators or barriers within the relationship were identified and tested within the context of this study. Associations and explanations were sought that either confirmed or challenged conventional knowledge. Deviant cases that yielded outcomes different from those expected were analysed and compared in order to explain the findings.

Transcript analysis and video-recordings were frequently revisited during the analysis phase to ensure a degree of consistency and that data were assigned to the same category on different occasions. Pope et al., (2000) support the idea of sequential or interim analysis which occurs during the data collection phase and guides future analysis and data collection. Data were also discussed with other researchers and colleagues and their interpretation and analysis of the data reconciled with that of the researcher.

4.11.3 Credibility of data

Credibility of data refers to the confidence in truth of the findings. Some researchers suggest that the researcher's account of the data is compared with those of the research subjects. However, Mays and Pope (2000) argue that this does also have its limitations in that the researcher and research subjects occupy different positions in the study and by virtue of these positions their accounts may differ. The manner in which FGDs and interviews were held after the initial data collection of this study does

however, reflect this attempt at enhancing credibility of the study in that interim findings were posed to participants for their comment. Rich & Ginsburg (1999) utilised and described a similar method of using different sources of data to enhance credibility.

At the heart of the credibility of data lies the ability of the data analysis to be sound and able to withstand criticism. As discourse is socially constructed, it may well have multiple meanings depending on the context in which it is interpreted. This is referred to as "epistemological relativism" which recognises that facts utilised to establish "the truth" are merely relative and various interpretations are possible (Wood & Kroger, 2000). An acknowledgement by the researcher of her own experiences and perceptions may have led to some bias, however, by triangulating the data and focusing on deviant cases, it is hoped that this bias has been minimised or accounted for. Bias is always present in research and it is for this reason that the influence of researcher is clearly stated upfront. Continuous challenging of claims made assisted in identifying potential bias and in accounting for and substantiating the claims made.

A clear account of the process of data collection and analysis is also provided so that potential sources of error can be identified and the reader is able to judge whether the interpretation is adequately supported by the data. Attention has been paid, where relevant, to the 32-item checklist criteria detailed as consolidated criteria for reporting qualitative research (Tong, Sainsbury & Craig, 2007).

Mays and Pope (2000) discuss reflexivity as one of the overarching mechanisms of ensuring quality of qualitative research. Although triangulation of data is acknowledged to enhance the quality of the research conducted, it still requires reflection on the behalf of the researcher to evaluate each of the findings and compare with other results. This demands sensitivity to the manner in which the researcher and the research process have moulded the data.

4.12 Ethical Considerations

Ethical approval was sought and obtained through the Wits Human Research Ethics Committee (Medical) (HREC). Clearance certificate number M121021, October 2012 is included in Appendix I. An amendment was submitted in January 2014 in order to undertake the interviews with the doctors (see Appendix J).

4.12.1 Identification of Risks involved

The main risk involved was preservation of the anonymity of all participants. Great care was taken to remove all names from the transcripts, as well as the removal of any identifying features from the

discussion of the sites or the participants involved, without compromising the meaning that could be extracted from the data. During the video-recording of the consultations, participants were informed that their features would not be 'blanked out', as facial expressions were vital to include as part of the data analysis. However, videos were only observed by the researcher and supervisor so as to limit access and identification of participants.

Part of the ethical considerations was to make provision for participants who may undergo any psychological stress as a result of the study. However, such services were not required.

Linkages of participants to recorded data were stored separately. Consent forms were stored in a separate file, while transcripts were saved under the site name, date and consultation number, rather than under the participant's name. The FGDs were conducted prior to the consultations so that any information or bias gained during the consultations could not be utilised by the researcher during the FGD. As has been mentioned previously, consultation recordings and FGDs took place on different days at each site to prevent the same patients from taking part and making specific comments about observed interactions.

Interviews with doctors were conducted almost 12 months after the collection of data during consultations. Initially, the researcher did not want to interview the doctors to avoid the doctors feeling intimidated by the results of the consultations. However, after preliminary analysis of the data was done, it became clear that the voice of the doctor was being neglected. The result of this time lapse between initial data collection during the consultations and subsequent interviews with doctors meant that the doctors had very little recollection of the specific consultations that had been recorded and were able to talk more generally about their experiences, without the risk or fear of being judged. However, this may also have been a limitation of the study which will be discussed later.

4.12.2 Permission

Once ethical permission had been obtained from the University of the Witwatersrand, gatekeeper permission was obtained from the KZN Department of Health, as well as from the Medical Managers at the individual facilities. These documents have been excluded from the appendices in order to protect the names of the sites and the health professionals concerned but are available, if necessary, upon request from the Wits Ethics committee. Appropriate information documents that were given to participants are included in Appendix K.

Once permission had been granted from the appropriate gatekeepers to perform the study, the relevant doctors were contacted telephonically. The study was explained telephonically and all necessary documentation emailed to the doctors. Thereafter, appropriate days for data collection were arranged.

On the days of data collection, information about the study was given to all potential participants as described in Figure 4.1. Thereafter, volunteers selected themselves and the study was further explained to these participants and individual informed consent obtained. Information was given in both English and isiZulu to all participants, using the research assistant as a translator where necessary. Prior to granting their consent, participants were encouraged to ask questions, which were answered either by the researcher or the research assistant. Appropriate consent documents are included in Appendix L.

4.12.3 Entry into the Hospitals

At both sites, initial meetings were set up between the researcher and the hospital manager. Appropriate documents and forms were discussed and permission to conduct the study obtained. The researcher made multiple visits to both sites in order that staff and patients felt comfortable with the presence of an additional person.

4.12.4 Therapeutic Privilege

The researcher is aware that as a medical doctor herself, patients may have been intimidated by her perceived status of power (Helman, 2007). As far as possible, the researcher did not disclose that she was a medical doctor, but rather a researcher from the university. Certainly, the researcher had no direct link to the medical treatment the patients received, nor was she able to influence the outcome of their consultation in any way. During the consultations, the researcher was merely an observer and did not take part in directing the consultation process. Interactions between the doctor and researcher were discouraged should the doctor have tried to initiate such conversation during the consultations.

Although both sites described are open, public settings, they do involve a sector of the community that is viewed as vulnerable and powerless. The patients attending such clinics have no alternative for seeking medical care. As unemployed persons or patients without a private medical aid, they rely on state hospital services for their medical care. In addition, the hospital they are able to access is limited by their geographic location, with some hospitals employing strict criteria on the patients entering the facility. With this in mind, great care was taken to provide an alternative for the patients who did not wish to be included in the study.

The issue of subordination is a possible consideration in a study such as this. Due to the fact that the researcher is a qualified medical doctor, and has some degree of familiarity with one of the sites, it is possible that participants may have felt compelled to consent to the study based upon the position of the researcher. For this reason, the researcher took the initial steps to gain entry to the sites and explain the study to the Hospital Managers and clinic staff not directly involved in the study. Thereafter, the research

assistant was involved in explaining the details of what was required from participants and in answering individual questions. The research assistant explained the nature of the study to participants, supervised the taking of consent and took the lead in facilitating the FGDs.

Despite these measures having been taken, it is still possible that participants responses may be dictated by the position and status of both the researcher and the research assistant. When analysing the data, any findings not in keeping with other sources of data were considered in this light and appropriately reflected upon.

4.12.5 Confidentiality

Confidentiality has been maintained at all times as described above. Files have been stored separately and data only shared with researchers and assistants integral to the study. Persons involved in translation and transcription of the data did not have access to personal information attached to the data. Participants were informed that absolute confidentiality during a FGD cannot be guaranteed, however, all participants were asked to keep the interactions of the group confidential. No individual names or personal identities of people have been utilised in this thesis.

The main dilemma involved the researcher's handling of sensitive data and confidential information within the consultations. Some of the consultations revealed data that were contrary to the *Batho Pele* code of conduct within the Department of Health. These consultations were not excluded, but rather the identity of the participants obscured so that information could be drawn from these situations and the lessons learnt used to inform the outcome of this research.

4.13 Concluding Remarks

The qualitative methodology employed was chosen so as to understand the lived experience of the participants, within their own environment. This allowed for an in-depth exploration into how these relationships may influence communication and behaviours and the manner in which the disease is perceived and managed. This is in contrast to the body of quantitative research available on the subject of diabetes management that does not allow for such depth of exploration a complex phenomenon of communication influencing patients underlying behaviours and perceptions.

The constructionist paradigm chosen in this study allows the focus to fall on the relationship between doctor and patient and how this relationship develops. It concentrates on the potential outcomes rather than understanding the details of the interaction by assuming meaning of certain behaviours.

Research took place in KZN, South Africa, at two hospitals, both serving patients dependent upon the public health system who presented to the hospitals' diabetic clinics for routine chronic care. The patient population selected and diversity of interactions represented a subset of the multicultural environment of South Africa. The incorporation of two sites allows for some degree of comparison between the sites to enhance understanding of the contextual influences. By making the socio-cultural environment of the data explicit, the way in which these factors influence the formation of the relationship can be brought to the fore.

Study participants were patients and doctors. Data were collected from observed and recorded consultations as they occurred naturally. In addition, patient and doctor views were sought via interview techniques, as well as ethnographic data collected at each site. These multiple data sources were triangulated in order to substantiate the meaning derived from the data. The novelty of this study lies in the transcribing of naturally occurring consultations and in relying upon both verbal and non-verbal elements of the data to inform the findings. The analysis of interactive elements of the consultation also contributes to the unique methodology employed in the study.

In keeping with the manner in which the data handling was presented in this chapter, the following chapters will present the results of the study in two separate sections – firstly, the primary data from the consultations will be presented in Chapter 5 and secondly, a thematic analysis of the interviews will be presented in Chapter 6. These results will then be analysed and discussed in combination in Chapter 7.

PART 3: UNDERSTANDING THE EVIDENCE FOR COMMUNICATION AS A SOCIAL CONSTRUCT

CHAPTER 5: RESULTS - CONSULTATIONS

5.1 Introduction

As was established in the previous chapters, the role of interpersonal relationships in managing a chronic disease is not well understood. This dissertation seeks to explore the role of these relationships in more detail. The role of the doctor-patient relationship is examined using theoretical principles of social constructionism, which seeks to understand perceptions and behaviours as they are influenced by interactions with others in a specific context. The context of these interactions has been described in Chapter 4 and a background description of each site provided in Appendices B and C. Individual nuances in context will also be highlighted in this chapter.

This chapter concentrates on findings from the recorded consultations. A brief overview is given initially loosely presented according to the CCCG and then various themes related to content and process skills are examined in more detail. All these findings will be interpreted within the socio-cultural context in which they occur.

By using a constructionist perspective, the findings from the consultations begin to reveal the importance of the interpersonal relationship, how the relationship develops and the effect that it has on patient adherence behaviours. Contrasting mechanisms of approaching the consultation will be presented and the respective outcomes highlighted.

5.2 Overview of content and process skills identified

The CCCG was initially used as a basic framework for analysis of the results. It is acknowledged that the participants did not have formal training in communication skills particularly the CCCG. However, the CCCG focuses on the content ("what") as well as process ("how") skills employed during the consultation and provides a framework from where interaction can be observed. Once this basic analysis had been reviewed, a more detailed thematic analysis was performed highlighting key themes. These results are presented in more detail in this chapter.

All names of participants have been altered to preserve anonymity. Sites are referred to as Site 1 and Site 2 only. Doctors are referred to as DrR1, DrR2 and DrE as depicted in Table 4.1 and patients are referred to sequentially as R1-R6 and E1-E18 as depicted in Table 4.2. Other names of people or places referred to in the text of the consultations have been changed, with attention paid to preserving various linguistic elements as well as the contextual meaning as described by Antaki. Notations used in the text follow the Jeffersonian analysis notations as detailed in Appendix H.

As discussed in Chapter 3, the purpose of the medical consultation is to exchange information enabling the health care practitioner to make an accurate diagnosis and allow for relevant treatment decisions to be made (Ong, De Haes, Hoos, & Lammes, 1995). In order for this exchange of information to be truthful and relevant for each individual patient, there needs to be a relationship between health care provider and patient. This interpersonal relationship is dependent on numerous different factors including patient and doctor demographics, practice type, speciality, etc. (DiMatteo et al., 1993). The CCCG framework utilised for analysis in this study is a patient-centred method of communication that values the relationship established between doctor and patient as essential to communication between them and highlights the importance of content and process skills (Kurtz, Silverman, Benson, & Draper, 2003).

5.2.1 Initiating the session

As described in Chapter 3, the purpose of this initial phase of the consultation is to begin the relationship building and set the scene by identifying the reason for the visit. Table 5.1 presents a summary of various components of initiating the session as they appear in the different consultations. Illustrative extracts will be referred to in the body of the text by the line numbers as denoted in this table.

Table 5.1 Summary of opening sequences of consultations including elements of conversation analysis where appropriate.

	Initiating session				
	Opening sequence	**Formal greeting**	**Intro self**	**Name on door**	**Tells open story**
R1	Lines 1-4 Dr: Beatrice[8]↑, I'll need an >ophthalmoscope< please. (00:10) Beatrice: °Okay° Dr: So↑, >how are you doing<? (00:01) Sin↑diwe? (00:03) O↑kay? Pt: °ja°	no	no	no	no
R2	no name used	no	no	no	no
R3	no name used	no	no	no	no
R4	Lines 1-6 Dr: Hi, Bonisiwe. So you're, you're >at school< today↑? Pt: °No° Dr: Is school on ↑holiday now? Pt: °No° Dr: Okay. When you come through next e, come early and tell them you need to get back to school. Right? Sindiswa, give me your diabetic diary dear.	no	no	no	No

	Opening sequence	Formal greeting	Intro self	Name on door	Tells open story
R5	Lines 1-9, 39-41 Dr: ↑Queenie! >How you're doing?< You're becoming like a skeleton – you're looking very thin to me↑ Pt: I <gained> about a kilo Dr: Have you ↑gained? (00:01) How are you doing? Pt: °Okay° Dr: (00:15) > Did we recommend< Vic↑toza for you↑? Pt: °No° Dr: (00:10) Insulin resistant…(00:08) <Quee::nie↑>, what's your average sugar control↑? >What's your< average? …. Dr: You're going to get urinary tract infections, an ulcer on your foot, you're going to end up with a fatty liver of diabetes…Hey! Queenie, Queenie, Queenie! (00:10) What do you inject yourself with? You're a thin lady so where are you injecting yourself? Just teach me as if you-	no	no	no	No
R6	no name used	no	no	no	Yes

	Opening sequence	Intro self	Name on door	Tells open story
E1	Lines 1-3, 17-18 Dr: Right::, ↑Thembi sawubona. *Right, hello Thembi*. P: ↑Yebo sawubona. *Yes, hello.* Dr: °U-right?° *How are you?*	no	yes	yes
E2	Patient addressed as "aunty" No formal greeting sequence	no	yes	yes
E3	Patient addressed as "aunty" Formal greeting sequence identified	no	yes	yes
E4	Lines 1-6 Dr: Hello gogo::↑ P: Ye::bo Yes, hello. Dr: <<Nin↓jani>> How are you? P: Sikhona <unjani we:na↑> I am well. How are you? Dr: <Nami> ngiyaphi:la, siyabonga. I am fine too, thank you. P: Siyabo::nga	no	yes	yes
E5	Patient addressed as "ma" Formal greeting sequence identified	no	yes	yes
E6	No name or title used No formal greeting sequence	no	yes	no

	Opening sequence	Intro self	Name on door	Tells open story
E7	Patients addressed as “mkhulu” Formal greeting sequence identified	no	yes	yes
E8	Lines 1-7 DR: Awu↑ go:go sawu:bona. *Hello gogo* P: <Ye::bo:> *Yes [hello]* DR: Uwena ojomba ucingo lapha phandle↑? *Are you the one that is jumping the queue outside?* P: Mhh?↑ *[Pardon?]* DR: Uwena ojomba ucingo >lapha phandle< bayakuthethisa abantu? *Are you the one that is jumping the queue outside and getting shouted at?* P: (laughs) Cha. *No* DR: (00:05) Uthini namhlanje? *What do you say today? [How are you today?]*	no	yes	Yes
E9	Lines 1-4 Dr: Sawubona ma↑mo:: *Hello mama* P: Ye:bo: Dr: i-file bo (00:01) ↑Velisiwe <Khumalo::> uqhamuka <emaQwakazi::> indawo <kaShaka kaBulawayo>:: >Yini namhlanje↑<? *May I please have your file. Velisiwe Khumalo from Maqwakazi, Shaka’s land in Bulawayo. What is wrong today?*	no	yes	yes

	Opening sequence	Intro self	Name on door	Tells open story
E10	Patient addressed as “gogo…gogs” Formal greeting sequence identified with humour	no	yes	yes
E11	<u>Lines 1-6</u> Dr: Yebo ma-Gree! *Yes, Ma-Gree* P: Yebo. *Yes, [hello]* Dr: Uthini uma-Greeza namhlanje? *What do you have to say today?* P: Eyi ngiyagula. *Hey (exclamation), I am sick.* Dr: Weh abantu bonke bayakhala namhlanje, yin indaba? *Oh dear, everyone is complaining (lit: crying) today. What is the matter?* P: Eyi mina kade ngagcina., Isinye, yonke into... *It has been a while since I complained. My bladder, everything..*	no	yes	yes
E12	Patient addressed as “aunty” Formal greeting sequence identified	no	yes	no
E13	Patient addressed as “Dlamini” No formal greeting sequence	no	yes	no
E14	Patient addressed as “Dlamini number 2” No formal greeting sequence	no	yes	no

	Opening sequence	Intro self	Name on door	Tells open story
E15	Lines 1-9 Dr: Sawubona [Patient Name] P: Yebo doctor. Dr: Ufike nogogo Cynthia futhi?↑ Did you come with gogo Cynthia? P: Yebo doctor, [>wayethathe igazi↓< Yes doctor, she had some bloods taken Dr: [Oh:: hhe::! P2: °Wayethathe igazi° They took my blood Dr: >Wayethathe igazi ngenyanga edlule?< Did they not take bloods last month? P: Ya [wathatha igazi ngenyanga edlule. Yes, they did take bloods last month Dr: [Oh ngiyabona. Oh, I see.	no	yes	no
E16	Patient addressed as “aunty” No formal greeting sequence	no	yes	no
E17	Patient addressed as “Sisi” Formal greeting sequence identified	no	yes	no
E18	Patient addressed as “Gogo” Formal greeting sequence identified	no	yes	yes

Greeting a patient is seen to be an essential element in establishing the relationship between doctor and patient but it does need to be done in accordance with local customs and preferences. While some patients may be comfortable with a first name basis, others may take offence to this and prefer the use of a generic term of respect or being addressed using their formal title and surname. In consults R1, R4 and R5, patients were addressed by their first names, however, in none of these consultations was a strong doctor-patient relationship demonstrated. The patient in consult E1 was addressed by both her first name and the generic term "mama" during the consultation. Although first name usage is not common amongst Zulu-speaking patients, a strong interpersonal relationship between this patient and her doctor was demonstrated throughout the consultation. Most other consults at Site 2 utilised the culturally respected generic forms of address for persons of various ages (eg: *mama, gogo, mkhulu* etc). Patients R2, R3 and R6 were not addressed by their names or titles at all which did not seem to have any direct influence on the consultation at that stage. Similarly, in consult E6 the patient was not addressed by name but the consultation was too short to assess the effect of this on the relationship demonstrated. Some of these data are presented in further detail in Section 5.4.1.4 below.

In addition to the technique advocated in the CCCG guide, *Batho Pele* principles (Department of Public Services and Administration, 1997) also suggest the doctor introduces himself to the patient in order to build the relationship and respect patient autonomy. This was not observed in any of the consultations although all consults were follow-up appointments within an environment familiar to the patients. Data on this theme is presented in more detail in Section 5.4.4.1 below. The addition of a name plate on the door at Site 2 may have assisted literate patients, although this did not seem to directly influence the relationship displayed within the consultation.

The opening sequence of the consultations is an important gateway to addressing the patients' agenda and understanding what their priorities are for the consultation. This is further discussed in Section 5.4.1.5 and 5.4.3.1 below. Whilst the results do indicate that a more open-ended enquiry at the beginning of the consultation may be favoured by patients in order to encourage sharing of their story, this does not necessarily have to be the case. In some cases, consultations were opened with closed-ended questions which did not seem to have any specific negative effect on the flow of the conversation. What did seem to influence the manner in which the consultation was begun was a direct fulfilment of the doctor's agenda to scrutinise laboratory results. The additional effect of the manner in which these results were presented using technical jargon, chastising the patient for poor adherence or highlighting failures in the patients' behaviours seemed to contribute to the way in which the doctor-patient relationship broke down.

The incorporation of humour into the opening sequence of the consultation was seen in a number of instances and patient and doctor commented on the value of this humour in strengthening the bond between doctor and patient. In some consultations, the use of humour was identified in the way in which

the patient was greeted, or a flippant remark in the beginning of the consultation to ease the tension and patient anxiety of coming to the hospital. It was also noted to be a mechanism of alleviating concerns or fears patients may have had with regard to the progression of their illness. Patients included themselves in this humour and commented on the positive relationship that was fostered between themselves and the doctor when engaging in this type of conversation.

5.2.2 Body of the consultation

It is within the section of the consultation where information is gathered, that the greatest deviation from known techniques was shown. The basic structure suggested in the CCCG was adapted in many instances, which is expected of experienced clinicians as has been documented previously (Hugo & Couper, 2005).

Regarding the actual content of the consultations, doctors did tend to cover most of the relevant aspects in diabetes management. Doctors at Site 1 utilised a checklist in the front of the patients' files to remind them to enquire about all relevant complications, co-morbidities, aspects of diet and physical activity. The consults at Site 2, were much shorter and focused mainly on the patients' immediate concerns. Elements of this 'checklist' as they pertain to diabetes management are discussed in Section 5.4.4. in more detail.

Examples of relevant family history being questioned were noted, however, in both consult R3 and R5, the manner in which this was handled was seen to negatively influence the patients' responses and in turn their overall attitude towards diabetes. Other co-morbidties and complications were also investigated by doctors but with little attention to explaining the relevance of these conditions to the patients.

Life style modification was an important feature of many consultations. Again, the way in which these issues were approached was seen to have a significant impact on the relationship that developed. Patients at Site 1 were accused of lying and cheating and mis-recording home blood glucose monitoring results whereas a patient at Site 2 was carefully explained how and when to test using non-verbal hand signals to re-enforce the message and to ensure understanding. Diet and physical activity were not a predominant feature of consultations at Site 2 whereas at Site 1, a great deal of time and attention was dedicated to enquiry about these issues. Although these are important and vital factors that need addressing in diabetes management, they frequently led to confrontations at Site 1 where empathy and respect in the relationship were lacking.

Adherence displayed by patients seemed to be a major concern at Site 1. Patients were admonished, ridiculed and chastised for their behaviours leading to patients becoming disengaged from the consultation as is seen in their lack of verbal responses. At Site 2, the doctor approached problems with

regard to adherence with a degree of empathy as well as humour which was seen to result in a much more open and trusting relationship that allowed for fair interchange between doctor and patients. Adherence as a theme is detailed in Section 5.4.4.5 below as well as in Section 6.2.1.

Patients were noted to initiate questions in very few consultations and where they did ask, it was mainly logistical directions or clarity on follow-up appointments that were asked, rather than focusing on the disease experience or management. In two instances (consults R2 and R6), patients asked questions that were not answered by the doctor. Similar results were noted with patients who responded to summary questions but who were not acknowledged (consults R2, R4, R6). More detail on questions is highlighted in Section 5.4.5.

The limitation of interruptions during the consultation showed interesting results (see Section 5.4.6). The way in which these interruptions was approached, seemed to have a significant impact on the effect of the interruption. In one instance (consult E10), the doctor was noted to apologise to the patient prior to answering a phone call indicating some degree of respect for her time and acknowledging that the doctor may have wished the situation to be different if it were possible. In another consultation (consult E12), the doctor mitigated the potential effect of the interruption breaking the flow of the consultation, by repeating vital information that was given just prior to the interruption. In other consultations (consults E4, E17, E18, R4, R5, R6), the doctor and patient do not pay attention to the interruption and the consult continues regardless of the interruption. This may indicate that doctors and patients have become accustomed to such interruptions and have learnt to manage them in a way that minimises the effect on the consultation.

Interruptions or cutting off of each other's speaking turns however did seem to limit the relationship between doctor and patient being established. Only in consult R6 where both doctor and patient were noted to interrupt each other did this behaviour not have any negative effects on the consultation. Other consultations where cutting off of turns did occur (consults R3, R4, R5) were noted to result in limited responses from patients in future turns.

Other breaks in the consultations were noted whilst doctors read or wrote notes in the patients' files. This did not generally hinder the relationship as patients waited silently until the consultation resumed. In consult E1, however, the doctor was able to engage the patient whilst he wrote notes and allowed her to tell some of her life story and the contextual influences in her life to which the patient responded positively (see Section 5.4.1.6).

The use of close-ended questions was noted frequently in all consultations. This is perhaps a result of time limitations in consultations and the belief that close-ended questions give information more quickly, or a

result of doctors wanting to address their own agendas. The effect of these questions, even in the opening segments of the consultation did not always seem to limit doctor-patient communication. It was the manner in which these questions were asked that was more influential. Evidence of close-ended questions being asked and patients responding with valuable information are noted in consults E4 and E12, where patients and doctor enjoyed a shared goal and worked towards a mutual understanding of the problem at hand. When these questions were used as compound questions, addressing a sensitive topic such as HIV (such as in consult R1) or to lead an enquiry into the doctor's agenda within the consultation, patients seemed to be more reserved. The use of open- and close-ended questions is discussed in further detail in Section 5.4.3.2 below.

In many cases, communication techniques such as chunking and checking, paraphrasing, signposting and echoing were noted to yield positive effects and strengthen the doctor-patient relationship. A good example of echoing (see Section 5.4.1.3) was seen in consult E4 where the doctor imitated the gait of the patient in the laboured manner with which he spoke. This behaviour occurred in such a way so as not to show disrespect but rather to show acknowledgement of the situation in which the patient found herself and convey empathy for that situation.

Engaging in small talk (section 5.4.1.6) and exploring the patient's life world was noted to be a facilitator in communication as mentioned above in the example of consult E1. However, the response to this small talk was seen to be equally significant. In consult R4, the patient was asked whether she attended school but the manner in which this initial conversation turned into chastising the patient for not coming to the hospital earlier became a barrier between doctor and patient. In consult R6, the patient began a conversation about his work commitments and the influence they had on his preference for a specific treatment regimen as well as his ability to return for follow-up appointments. These factors were not acknowledged by the doctor leading to a missed opportunity in building the relationship.

The issue of language also was seen to play a major role in the effect of the conversation between doctor and patient and is detailed in Section 5.4.2 below. Firstly, the choice of language in which the consultation was conducted was significant. In consults where the doctor elected to conduct the conversation in the first language of the patients, doctor and patients were noted to engage in code-switching and the use of non-verbal hand gestures to augment meaning. Patients did not correct the grammar where it was noted to be incorrect, indicating a degree of mutual respect that was shown in order to achieve a common goal of exchanging information in the consultation. The use of an *ad hoc* interpreter in consult R4 did not have the desired effect of augmenting understanding of the message. Rather, the patient retreated and disengaged from the consultation whilst the doctor and interpreter only berated the patient for poor behaviour and lifestyle management. The use of technical medical jargon was not demonstrated in any consultations at Site 2 mainly due to the fact that the consultations were all conducted in isiZulu. In examples from Site 1 where such terminology was used, it did seem to be a barrier towards building the

doctor-patient relationship. On the other hand, the use of over-simplistic language and incorrect sentence construction utilised in consults R1 and R4 was not seen to aid the patient's understanding.

Non-verbal forms of communication such as hand gestures were noted frequently in consultations at Site 2 and were noted to facilitate the communication between doctor and patient. In some consultations, good eye contact was maintained despite contrary cultural norms. In other consultations (notably R1 and R4), poor eye contact was demonstrated.

Multiple silences in all consultations were noted, some of which were as a result of poor communication between doctor and patient where patients chose to give non-verbal answers to questions or to hesitate before responding. Section 5.4.7. provides further detail and discussion into these silences.

Within the body of the consultation, humour was seen to be used to maintain the relationship already established and to offer support for the patients and their suffering. Humour was also seen to be a useful tool when dealing with minor distractions and frustrations and in making light-hearted comments during the consultation. The negative effect of ridicule and belittlement was noted in consult R4 with the patient's consequent lack of engagement in any further conversation.

5.2.3 Closing the session

R5 was excluded from this section of analysis as it ended with the patient being sent for an ECG. This was not the logical end of the consultation and it was understood that the consult would continue once the patient had had her ECG that same day. However, the patient did not return by the time the diabetic clinic closed for the day so would have had to locate the doctor in the ward. Consults E6 and E16 were also excluded from this analysis as they were very short consultations mainly following up on blood tests and not inclusive of an entire follow-up consultation.

Table 5.2 presents a summary of the various aspects of closing the session as they appeared in the different consultations. All extracts will be referred to in the body of the text by the line numbers as denoted in this table. Where a specific analysis of the speech is not crucial, and the focus is more on the content of what is said, these extracts have been translated into English in order to make the table easier to read.

Table 5.2 Summary of closing sequences of consultations

Consult	Contracting, safety netting & next steps	Summarising & final check	Final closure
R1	Lines 141-148, 159-162 Dr: Next time you bring all your tablets, you make sure you bring them all. Because sometimes we don't know if the pharmacy is giving you the right tablets or if you're taking the tablets properly or not. I can't see what's going on here. Sometimes they're writing 14, sometimes 28 – I don't know what's going on. (00:30) We'll see you in 4 months… the third month.. I want you to see the dietician…Sr TN..and then we'll see you in 4 months. The third month, you must take bloods, right? (00:10) The third month, when you come for your pink card, you must come fasting – we want to check your cholesterol and all that. You know what's fasting? Overnight. You don't have anything to eat or drink from 8 the night before. You have your supper before 8 o'clock? Pt: Yes … Dr: You do bloods? Okay. The dates are right? Beatrice: yes, doctor, they're right Dr: So 20th May – you coming with your pink card, you take all the blood. Huh? (00:05) She must see Theresa first before she goes, then the dietician and the pharmacy. Okay…. Bye….	nil	Line 161-162 Dr: So 20th May – you coming with your pink card, you take all the blood. Huh? (00:05) She must see Theresa first before she goes, then the dietician and the pharmacy. Okay…. Bye….
R2	Lines 114-120 Dr: >I'll see you< in six months, not four Pt: Six↑ months. (00:30) Dr: >How old< are you now? Pt: 39 (00:35) Dr: So >we'll see you< in six months' time.	Lines 106-111 Dr: So we keep it at 30 and 14 Pt: 30 and 14↑ (00:15) Dr: >And the< metformin, two >in the morning<, two >in the evening< Pt: Two↑ in the morning, two↑ in the evening (00:30)	Lines 121-122 Pt: Thanks doc Dr: Bye

Consult	Contracting, safety netting & next steps	Summarising & final check	Final closure
R3	Lines 86-91 Dr: I know↑ you have them. (00:03) This is the <last time> (.) I want to see you in a month's time (.) If >these things< don't improve:: (.)You know: as I said before (.) you're just wasting the opportunity of being here Pt: °Ok ° Dr: (00:08) So:: you'll see me >in a< month's time. You don't see any (.) other (.) doctor. Pt: (nods)	Lines 92-93 Dr: (00:05) Okay↑ (Patient leaves)	nil
R4	Lines 238-242 Dr: =↑okay dear. Forty units >in the morning<, twenty-six in the afternoon. Okay↑ Let's just do a thyroid function for you as well (.) Very apathetic facies (.) Okay dear, I'll meet you in four months' time, okay↑ (.) just get your bloods done for me the month before you arrive. Your medication – 40 and 26. Okay↑ I'll see you in four months' time. Okay↑ Thanks Beatrice. Beatrice: Thanks doctor. Zama uyabona! *(Try, do you see!)*	Lines 234-237 Dr: =You will go to forty and 26(.) forty and 26 (.) I'll write it on a >piece of paper< for you. Just speak to her. Because this lady ↓(.) the lights are on and no one's home↓ Beatrice: Yezwa? Uzokhupula udokotela. Uyabona? Ushukela uwenza inkinga namehlo nezintso – zizofa!= *(Do you understand? The doctor is increasing [your medication]. Sugar makes problems with your eyes, your kidneys – they will fail!)*	Nil

Consult	Contracting, safety netting & next steps		Summarising & final check	Final closure
R6	Lines 269-275, 285-287 (Doctor turns to nurse to discuss when appointments are available for follow-up) Dr: One month? Two? Pt: You can't give me six months? I can come to out-patients if I have a problem? Dr: I'm a little unhappy about that because it's a new regimen. Okay – if your HbA1c is coming to a satisfactory level, your diet, the complications…if everything is okay then we'll do that. That's a reasonable thing to do, right? (00:05) … Dr: That's fine. If this is in keeping with what you say, the HbA1c, six months is fine, I just want to leave the door open so if you have got a problem, you can come back and I can tweak it, because that is essentially what I would do.		Lines 265-268 Dr: Okay so let's do it like this, right? Let's just stick to the regimen that you're taking, right? Let's get some notes down to support this. And we do an HbA1c. And you come next week Monday – I need your diabetic diary at the next visit. I need you to fill that in. We need to see the spikes and the surges, right?	Lines 299-300 Pt: °Sorry° for >talking so much< but it's all in the <name of communication> (.) and communication is important in this (.) modern (.) world. (walks away)
E1	Line 77 DR: Emaphilisini. *Go to the pharmacy.*	Lines 72-75 DR: Alright but abantu bonke mama bayagula nesifo sikashukela, kufike isikhathi kudinge kukhuphuke i-treatment, uyabona. Nansi indaba yakho kudinga namhlanje siyakhuphuka kancane hhayi kakhulu but sifuna uku-checkha njalo nje ukhuphuka, ukukhuphuka kukusiza ukubamba impilo. Thanks my dear. *Alright, but mama all people that have diabetes eventually reach a point where the dosage of their treatment has to be increased. You can see with your case as well, today we are increasing the dosage slightly, not too much. But we just want to check it regularly so that we can help keep your health. Thanks my dear.*		Lines 79-80 DR: Ok, ok, bye bye. P: Yebo.

Consult	Contracting, safety netting & next steps	Summarising & final check	Final closure
E2	<u>Lines 75-90</u> *DR: This note that I am writing now, you must take it with you to the clerk.* *P: That side?* *DR: Where you got your file from this morning.* *P: Oh* *DR: They will give you a crutch. But first you must go to room 12 to get an injection.* *P: Oh* *DR: After you are do with the injection, go to the clerk and ask for the crutch.* *P: I must go to the clerks that side? This note goes to the clerks?* *DR: First you go to room 12 for the injection and [inaudible]* *P: Oh, yes* *DR: When you are done in room 12, go to the clerk at the front where you get your file from. Ask them to give you crutch. After you have received the crutch you take your file again and go to the dispensary to get all your pills. I ordered pills for your legs, painkillers, what, what, and next month you must come back to Makhilingo to get your pills.* *P: To get the pills.*	Nil	<u>Lines 91-93</u> *DR: Thank you very much.* *P: Thank you.* *DR: Go well.*

Consult	Contracting, safety netting & next steps	Summarising & final check	Final closure
E3	Nil	<u>Lines 31-33</u> *DR: You will inject 38 in the evening. In the morning you must inject 40. Do you understand?* *P: Ok.*	<u>Lines 36-36</u> *DR: Oh. Ok Ma. Thank you very much. Go well.* *P: Thank you.*
E4	<u>Lines 82-85</u> DR: Alright so ngibhalile induku laphaya angimazi[9] noma akhona but ngicelile and uma ushukela uwu-7 namhlanje angithandi ukushintsha umjovo sifuna ukubona ubala kanjani ngencwadi[10] sizo-checkha ngenyanga ezayo. *So I have written here that you need a crutch. I do not know if they are available, but I have asked for one. If your sugar level is 7 today, I do not want to change the dosage of the injection. We need to see what you wrote on the book. We will check you next month.* P: Ok.	<u>Lines 70-75</u> DR: So ugcwalisa njengalo, Monday, Tuesday, Wednesday, Thursday, Friday. Ukufunda lapha. Ithi phambili i-breakfast emva kwa-breakfast phambili i-lunch emva kwa-lunch and then awusheshi uphele izinti but siyawubona uhamba kanjani iviki lonke. Ubeyenayo usikhombise ithi le, ithi le, ithi le. Sithi hawu njalo nje, uyabona kuzophela inyanga so uzogcwalisa ama-page awu-4. 1,2,3,4. Sizombona . hawu njalo nje phambili i-breakfast iphezulu kukhona inkinga usudinga ukukhuphuka umjovo ekuseni noma ntambama noma whatever uyabona. *So you must fill in this diary. Monday, Tuesday, Wednesday, Thursday, Friday. You must read here. It says before breakfast, after breakfast, before lunch, after lunch, and then the sticks will not run out quickly, but we can be able to see your progress for the whole week. Then you must come back with it and show us what each day say. You see by the end of the month you would have filled in four pages; 1, 2, 3, 4. We will be able to see for example that, before breakfast your sugar levels are high. Then there is a problem which means we need to increase your dosage of injection in the morning or in the evening or whenever, you see.*	<u>Lines 86-87</u> DR: Thank you ma, hamba kahle. *Thank you ma, go well.* Pt: Sale kahle, doctor. *Stay well, doctor.*

[9] Correct grammar = angazi
[10] Correct grammar = encwadini

E5	<u>Lines 21-23</u> *DR: If you feel dizzy you must sit down. There is no problem. It reduces BP. You will be fine.* *P: Ok*	<u>Lines 24-30</u> *DR: Today I will order and injection for you as well as ointment to rub so that it will reduces the pain. Do you know where you have to go to get an injection? Do you know the room where you will get injected?* *P: Getting injected for pain?* *DR: The room where you will get your injection from.* *P: Oh the room where I will get the injection?* *DR: Yes*	<u>Line 37-38</u> *DR: Thank you.* *P: Thank you very much.*
E7	nil	<u>Lines 44-48</u> P: Oshukela, o-BP awazi lento iphuma kuphi, hheyi. *Diabetes and blood pressure – both of them. I do not know where these things come from.* DR: Uyaguga Vilakazi uyaguga. *You are getting olf Vilakazi, you are getting old.* P: Ngiyaguga. *I am getting old.* DR: Hamba kahle, mkhulu. *Go well, mkhulu.* P: Hhayi kubi. *Hey, it is bad.*	Lines 43-44
E8	Nil	<u>Lines 19-20</u> *DR: For the new ones, you must take one in the morning and take one in the evening.* *P: The one that I just took?*	<u>Lines 21-22</u> DR: Ok, thank very much. Go well. P: Thank you.

Consult	Contracting, safety netting & next steps	Summarising & final check	Final closure
E9	Lines 29-30 DR: Nanto-ke ikhadi lase Maqwakazi, nanti ikhadi lasekhaya. Hamba kahle uye emaphilisini. *Here is the card from Maqwakazi, here is the card for now. Go well, go to the dispensary.* P: Emaphilisini? *To the dispensary?*	Nil	Nil
E10	Lines 18-24 *DR: Then I will order vitamins for you to boost your strength. You will also get painkillers.* *P: Yes* *DR: Yeah. I will also order an ointment for you to rub Ma.* *P: Yes* *DR: Ok. Thank you very much.* *P: Ok. Thank you.*	Lines 14-17 *DR: …Your blood sugar level is high. That is why you are running out of strength. So we need to increase the dosage of the small pills. You must now take two per session. Do you understand?* *P: Yes*	Lines 25-26 *Dr: Thanks a lot aunty. Go well.* *P: Ok. Thank you.*
E11	Lines 19-22 DR: Ok Mama, here is your new card. P: Ok DR: You must first go to room 12 to get an injection and then go to the dispensary. P: Oh.	Nil	Lines 23-24 DR: Thanks Mama. Bye-bye. P: Thank you. Thank you.
E12	Lines 18-21 *DR: Go to room 12 for an injection and then go to the dispensary. Do not forget that the dosage of the pills that make you urinate has been increased in order to lower your BP.* *P: Ok*	Nil	Nil

Consult	Contracting, safety netting & next steps	Summarising & final check	Final closure
E13	Nil	Nil	Lines 22-23 *P: Thank you.* *DR: Go well.*
E14	Nil	Nil	Lines 26-27 *P: Yes. Thank you.* *DR: Bye-bye.*
E15	Nil		Lines 95-96 *DR: Hey, this thing! Ok there you are, bye.* *P: Ok doctor. Bye-bye.*
E17	Nil	Lines 15-18 DR: Today you will get new ones, round small ones. You must break it into two halves. Take one half in the morning and take one half in the evening. They do the same work as the old ones but better. P: Ok.	Lines 19-20 DR:Thanks Sisi. Go well. P: Yes. Stay well
E18	nil	Nil	Lines 56-57 DR: Thanks a lot. Bye-bye. P: Thank you.

The final section of the consultation is designed to close the consultation in a respectful manner that satisfies both doctor and patient and ensures mutual agreement. The techniques of contracting and safety netting were generally noted to have a positive effect within the consultation. Again, the manner in which this information was delivered seemed to influence the effect of the information more than the actual choice of words. The time spent on consultations and explanation to patients was noted to decrease during the day.

The final greeting was noted in the majority of consultations at Site 2 with exceptions not having a significant effect on the consultation. However, at Site 1, a final greeting was only noted in consult R2, reflecting the lack of relationship that had developed between doctor and patient in the majority of consultations.

At Site 2, almost all consultations ended with a formal parting exchange. The final exchanges were usually initiated by the doctor, as is the custom in African culture for the more senior person to initiate and end greetings. The patients responded either with the formal exchange to "stay well" ("Sale kahle") or a display of gratitude for the service. Some of these exchanges illustrate code-switching which will be discussed in more detail below as part of the process skills utilised in the consultations.

The value of the closing exchange mirrors that of the opening greeting in which the relationship is formalised. Once again, the cultural context of the consultation is seen to be relevant as greetings adhere to social and cultural preferences.

In analysing the closing of the consultations, it becomes evident that in some circumstances, the therapeutic relationship appears to have broken down and conversation between doctor and patient is no longer beneficial. In some cases, the consultation may have begun on a poor note such as is noted in consults R1 and R4 where initiating the session was already noted to indicate that little interpersonal relationship existed. Notably, in consult R6, the patient began his consultation confident and determined to have his needs addressed, but by the end of the consultation seems demoralised and trying to save face. Consults R2 and R3 end in the same non-descript manner in which they began, with the patients playing a very passive role in the communication.

5.3 Duration of the Consultations

The overall length of the consultation has been suggested as a factor in patient satisfaction with their health care (Baker, 1996). The length of the consultation also governs the overall content and may determine the structure of the consultation as well. The following results are presented to describe the context of the consultations and how they develop. Figures 5.1 and 5.2 below indicate the total duration of each consultation at Sites 1 and 2 respectively, as obtained from ethnographic data. All consultations are listed sequentially as they occurred on a particular day.

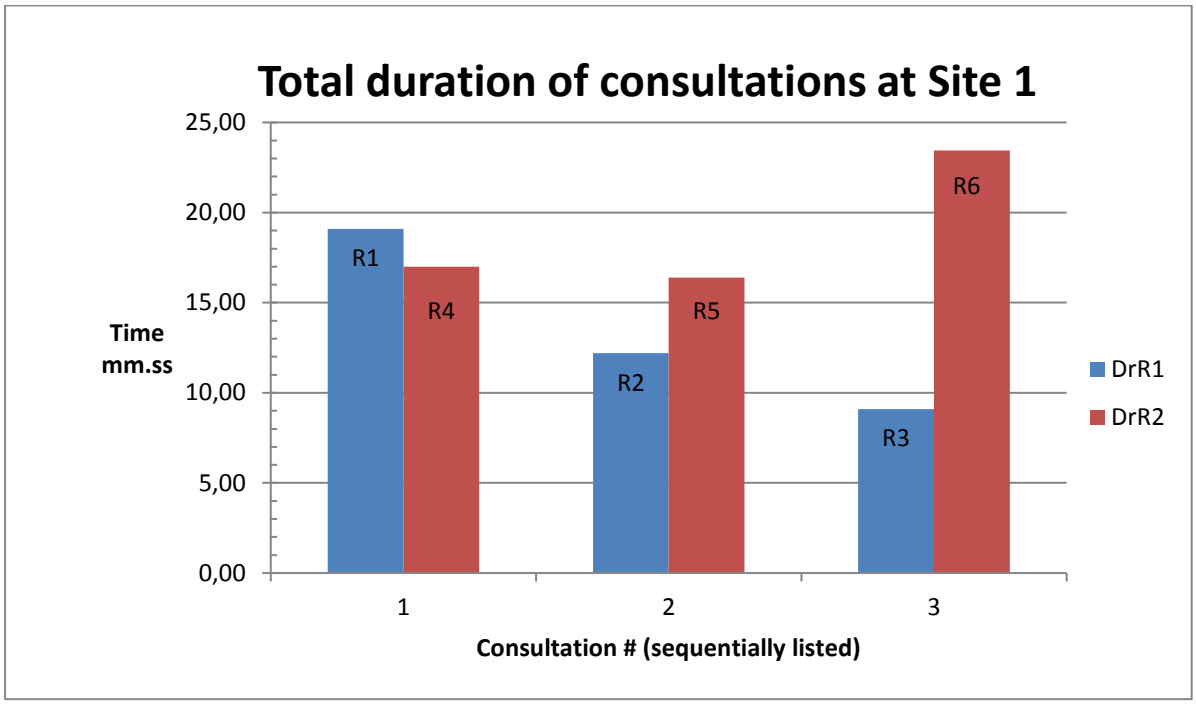

Figure 5.1 Duration of consultations at Site 1

The consultations in Figure 5.2 are shown as actual time spent with the patient with time subtracted from the total consultation time for interruptions that were not directly relevant to the consultation. Time that was spent writing notes is still included in the consultation. It should also be noted that Consult E15 was a combined consult with the patient and her friend who accompanied her, resulting in the slightly longer consultation at that time.

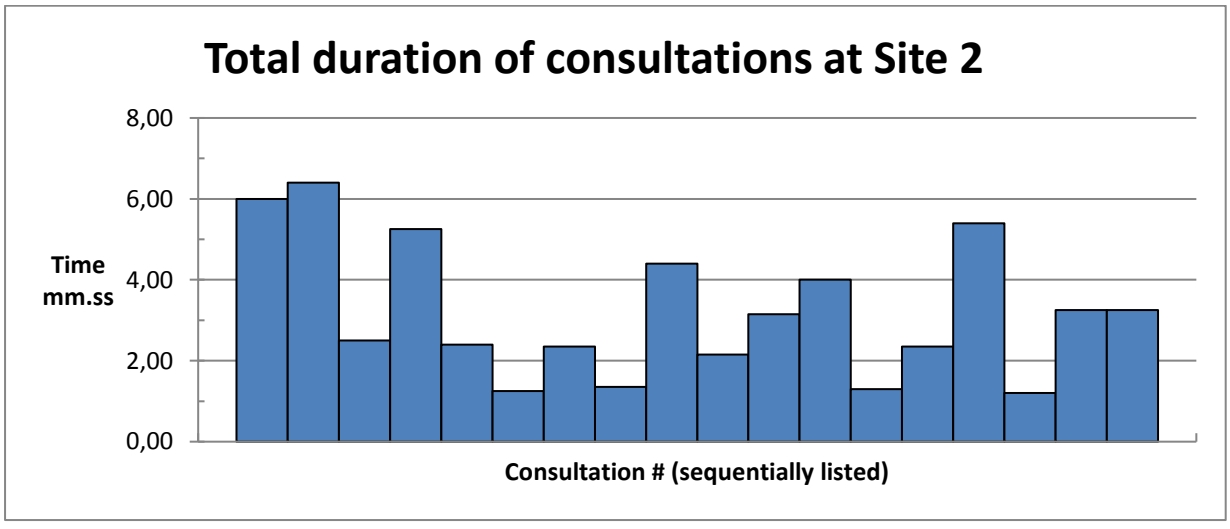

Figure 5.2 Duration of consultations at Site 2

The trend seems to be towards shorter consultations as the day progresses, with consult R6 being a deviant case which will be examined in more detail below. The average time spent in consultations differs considerably between sites. At Site 1, the average duration per consultation is just over 16 minutes, whereas at Site 2, the average is approximately three and a half minutes.

The duration of the consultation has been shown to be of particular importance when dealing with a complex disease such as diabetes. Parchman, Noel & Lee (2005) found during a 10-20 minute booked appointment, only about 30% of patients had their diabetes medication titrated during the visit. As the consultation duration dropped below 10 minutes, the chance of medication titrations dropped below 10%. Non-booked appointments where laboratory results or other additional information was not available further reduced the chance of titration by 50% and where additional complaints were discussed, the focus on diabetes medication titration was reduced even further. These results highlight the clinical importance placed on the duration of the consultation and how other findings from the consultations should be interpreted within this context.

In addition, the actual duration of the consultation is seen to influence the way in which the relationship manifests. As Ellis (2004) reflects African culture is often not guided by time but rather focused on significant events. Thus it may be that these patients appreciate the human interaction and the attitudes displayed to them above that of the actual time spent in consultation. It has also been suggested that consultation length may be linked to patient satisfaction which would in turn, be linked to a positive effect on patients' ability to manage their disease (Baker, 1996; Goedhuys & Rethans, 2001; Williams & Calnan, 1991). The challenge that time played in consultations with patients with NCDs and the negative impact that a lack of explanation and lack of emotional support, particularly at the time of initial diagnosis, had on patients was highlighted by Murphy et al. (2015). However, some authors have suggested that patient satisfaction may relate more to perceived time spent on a consultation rather than actual time spent and that the quality of consultation may have a greater impact on patient perception of time spent (Cape, 2002). This may indicate that additional factors may be at play when moulding the experience for the patient. Tallman et al. (2007) used a similar methodology to this study where videotapes of consultations were observed and participants asked to comment directly on these consultations. Although patient-centred, affective-type behaviours were noted to improve patient satisfaction, the duration of the consultation was not significantly linked to patient satisfaction. With regard to the decrease in length of time spent on consultations throughout the day, similar findings were noted in a European study where consultation lengths were noted to shorten as doctors' workloads increased during the day (Deveugele, Derese, van den Brink-Muinen, Bensing, & De Maeseneer, 2002).

Other data from this study will be used in this and the following chapters to evaluate patients' views and feelings as to the satisfaction with their consultations and in relation to the time they are seen to spend with the doctor. Furthermore, the outcomes of the consultations will be analysed in relation to existing knowledge on the duration of the consultations.

5.4 Significant themes

5.4.1 Learning from / adapting to a new culture

5.4.1.1 Hand gestures

Hand gestures are used frequently at Site 2 by the doctor as he explained the days of the week on which to perform a certain task and to indicate numbers. When referring to doses of insulin and number of tablets to take, the doctor also demonstrated these numbers on his fingers at the same time, which is common practice in the isiZulu culture. Each finger is allocated a specific number beginning with the little finger of the left hand as "one" through to the left thumb (five) and then continuing with the right thumb (six) through to the right little finger (ten). This is slightly different from the traditional Western method of counting from the thumbs towards the little fingers or even the use of more randomised ways of representing numbers. The manner in which the doctor relates to the patients using these hand gestures indicates an understanding of the culture and respect for other customs. Such use of props, visual aids and hand gestures in order to augment meaning have been suggested by other South African researchers as an alternative to formal interpretation where human and financial resources are limited (Watermeyer & Penn, 2009a).

In consultation E4, line 51-75 the doctor explains when he would like the patient to test herself and indicates on his fingers the appropriate days of the week which he then demonstrates in the diabetic diary as well. The patient mentioned earlier in the consultation that she was not literate but was able to transcribe the number her glucometer displayed into her diabetic diary card. This display of non-verbal gestures to ensure the patient understands what is required may be interpreted as a direct reflection of empathy towards the patient, given her earlier comments.

Consult E4:

51	Dr:	Nansi incwadi, eyakho i-exercise ugcwalise izindaba zakho lapha phambili. Lapha
52		phakathi iphepha ujova umjovo omungaka, ujova, ubala ukuchofoza kanjani.
53		Ukutesta ngoMsombuluko u-testile phambili kwe-breakfast.
		Here is the exercise book that you will use to fill in your information in the front, and inside you write how many times you inject yourself, and how you prick yourself. When it comes to testing, on Monday you must test before breakfast.
54	P:	Njalo nje ngi-testa ngaphambi kwe-breakfast.
		I always test before having breakfast.
55	Dr:	Ngomsombuluko?
		On Monday?
56	P:	Oh
57	Dr:	Phambi kwe-breakfast, ngoLwesibili ujova emva kwa-breakfast.
		[On Monday] before breakfast, on Tuesday you will test after breakfast.
58	P:	Ngi-teste emva kwe-breakfast?
		I will test after breakfast?
59	Dr:	Emva kwe-breakfast, uqeda ukudla uchofoze. Uyangithola?
		After breakfast, when you have finished eating, you must prick yourself. Do you see?
60	P:	Oh.

61	Dr:	NgoLwesithathu ujova phambili i-lunch, ngoLwesine utesta emva kwe-Lunch,
62		ngoLwesihlanu ujova phambili i-dinner and then, ngoMgqibelo u-teste emva kwa -dinner. *On Wednesday you should test before lunch, on Thursday after lunch, on Friday you should test before dinner and then on Saturday you will test after dinner.*
63	P:	Emva kwe-dinner? *After dinner?*
64	Dr:	Ya.
65		*Yes.*
66	P:	Emini? Hhayi phela okwe-supper? *During the day? Not after supper?*
67	Dr:	Cha, supper emva kwa, entambama. *No, after supper, in the evening.*
68	P:	Oh.
69	Dr:	But Sonto u-testa ngesikhathi sokulala[11] *But on Sunday, you should test before bedtime.*
70	P:	Ehhe.
71	Dr:	So ugcwalisa njengalo, Monday, Tuesday, Wednesday, Thursday, Friday. Ukufunda
72		lapha. Ithi phambili i-breakfast emva kwa-breakfast phambili i-lunch emva kwa-lunch
73		and then awusheshi uphele izinti but siyawubona uhamba kanjani iviki lonke.
74		Ubenayo usikhombise ithi le, ithi le, ithi le. Sithi hawu njalo nje, uyabona kuzophela
75		inyanga so uzogcwalisa ama-page awu-4. 1,2,3,4. Sizombona. Hawu njalo nje phambili i-breakfast iphezulu kukhona inkinga usudinga ukukhuphuka umjovo ekuseni noma ntambama noma whatever uyabona.
		So you must fill in this diary. Monday, Tuesday, Wednesday, Thursday, Friday. You must read here. It says before breakfast, after breakfast, before lunch, after lunch, and then the sticks will not run out quickly, but we can be able to see your progress for the whole week. Then you must come back with it and show us what each day say. You see by the end of the month you would have filled in four pages; 1, 2, 3, 4. We will be able to see for example that, before breakfast your sugar levels are high. Then there is a problem which means we need to increase your dosage of injection in the morning or in the evening or whenever, you see.

In consult E7, line 26, (see Section 5.4.2.2 for full extract) the doctor and patient imitate each other's hand gestures to demonstrate small, round tablets and then again hold up their fingers to show the number of tablets to be taken in the morning and afternoon. A similar interchange is noted in E14, lines 16-17, with a younger female patient imitating the hand gestures of the doctor to indicate the number of tablets to be taken at various times in the day. Again, these gestures indicate the willingness of the doctor to augment the patient's understanding in a manner that is not belittling but in keeping with cultural customs where hand gestures are frequently used.

5.4.1.2 Eye Contact

An interesting phenomenon occurred in consult R2, where the patient and doctor initially maintained good eye contact whilst discussing the frequency and nature of the low glucose levels. Both doctor and patient shared a similar demographic profile and it may seem that this could explain such an observation. However, as the consultation progressed, it became evident that the relationship was not maintained in this manner. On direct enquiry of the patient's symptoms, the patient's lack of

[11] See Table 5.3

ability to test her glucose levels at home and her failure to present at the hospital timeously, the patient withdrew and averted her gaze away from the doctor.

Patients R1 and R4 did not share any demographic similarities with their doctors and if this study had adopted a critical or feminist perspective, this disparity may provide a simple explanation for the lack of engagement seen in these consultations. However, from a social constructionist perspective, it begins to emerge that behaviours during the consultation as well as possible previous behaviours alluded to may provide a deeper understanding of the lack of interaction between doctor and patient.

The patient involved in consultation R1 struggled to make eye contact with the doctor throughout the consultation. Although, this may be a sign of respect for an older male doctor, the patient looked disappointed and distressed throughout the consultation noted in her minimal verbal responses to the doctor and frequent use of monosyllabic answers and head gestures to indicate “yes” and “no” answers. Her body posture remained stiff and almost unmoved throughout the consultation. The patient was also noted to look confused during the discussion of her blood results but this confusion was not picked up on by the doctor or any further explanation of these results given. At one stage the doctor gave the patient a diary to record her glucose levels tested at home. However, he was talking whilst writing notes and did not notice the confused look on the patient’s face as she paged aimlessly through the diary unaware of how to record the readings required.

In consultation R4, the patient made very little eye contact with her doctor. This was accompanied by a lack of verbal responses in favour of non-verbal gestures such as shrugging her shoulders and limited head movements to indicate “yes” and “no”. Even when Nurse B addressed the patient in isiZulu towards the end of the consultation, the patient made no eye contact with the nurse and remained static with her body facing side-on to the nurse and her head bowed down. The nurse herself was also given little opportunity to interpret the information without the doctor interjecting. The indication was that similar information had been given to the patient previously but that she had not complied with the advice.

All consultations at Site 2 are between African patients and a white, male doctor of higher social status than that of the patients – again, minimal demographic similarities. However, almost all patients engaged in the consultation with the doctor and were able to maintain eye contact during the consultations where appropriate. In traditional African culture, it is regarded as disrespectful to have direct eye contact with someone more senior (Turner et al., 2015). However, the data from this study show that in some instances, patients who come from a traditional African culture are able to engage in a mutual sharing of information with their doctor as seen in these consultations at Site 2. The extent to which the doctor is able to meet the patients by addressing them in their language, conducting the consultation in isiZulu and displaying respect for the culture in his words and mannerisms, may well have contributed to the way in which patients felt they were able to engage on a more equal level with the doctor despite superficial disparities.

In a review of non-verbal behaviours by Levine and Ambady (2013), it was shown that doctors tend to avoid eye contact or even physical touch in cross-cultural interactions due to the fact that they don’t understand the different cultural interpretations thereof. The evidence from the consultations in this study tends to indicate that with mutual trust and a curiosity to learn the others’ culture, that such

non-verbal behaviours may be possible and contribute significantly to the building of the doctor-patient relationship across cultures.

5.4.1.3 Echoing

Echoing is a specific term in CCCG used to encourage patients to tell their story. It refers to the repetition of words or phrases which are repeated not as a statement but in a questioning tone. A simple example is noted in consult R6, lines 47-50 when the doctor repeats the patient's statement with regard to the insulin doses that he takes in order to clarify the meaning.

Consult R6:

47 Pt: I take 25 with each meal…(inaudible)
48 Dr: So you take 25 units three times a day?
49 Pt: Ja. I took it three times. Today I took it this morning. Right? And I take 25 in the evening
50 too. It's perfect! This is just perfect!

In consult E3, the patient is seen to repeat words that the doctor has spoken in line 18 (when discussing a ringworm infection) and lines 23-24 (asking about tablets to be taken). Consult E7 also shows evidence of echoing in lines 7 and 10 which seem to result in improved understanding between doctor and patient.

Consult E7:

6	P:	Lapha akulungi i-BP lapha. *Things are not right here with my BP.*
7	Dr:	Oh i-BP.
8	P:	Yebo bathi... kukhona ipheshana eli… *Yes, they say... here is the piece of paper they gave me...*
9	Dr:	Ya iphezulu, hhayi kabi kakhulu. *Yes it is high but not too bad.*
10	P:	Hhayi kabi kakhulu. But n*ot too bad.*

Another type of echoing is noted in consult E4, lines 1-6, as the laboured, drawn-out speech of the doctor seems to mimic the slow, laboured gait of the patient indicating an understanding of the context of the patient and a mutual co-construction of how the consultation plays out. Further evidence with regard to non-verbal skills and use of language will be presented in Sections 5.4.2.2 below in relation to this consult.

Consult E4:

1	Dr:	Hello gogo::↑
2	P:	Ye::bo *Yes, (hello).*
3	Dr:	<<Nin↓jani>>

		How are you?
4	P:	Sikhona <unjani we:na↑>
		I am well. How are you?
5	Dr:	<Nami> ngiyaphi:la, siyabonga.
		I am fine too, thank you.
6	P:	Siyabo::nga
		We give thanks.

5.4.1.4. Greeting the patient by name

A greeting is an act of communication in which the participants deliberately make their presence known to each other. It may be a purely verbal greeting or accompanied by non-verbal gestures which may sometimes be culturally-specific. Greetings differ in different customs and the social status of a person may also influence in the way in which the greeting is enacted. The purpose of the greeting in medical communication is just as in regular social life – to introduce oneself in a formal or informal manner and to acknowledge another's presence.

In consult R1, lines 3-4, (see Section 5.4.3.2. for full extract)) a young African female patient is consulted by an older Indian male. She is addressed by her first name. A similar example occurs in R4, lines 1 – 4 (see Table 5.1) when another young African female patient is consulted by an older Indian female doctor. In both cases, the patients' responses are limited and reserved. Further analysis of the opening sequences may contribute to this meaning.

Consult R5 also shows a younger Indian doctor addressing an older Indian female by her first name (line 1) as part of an exclamation of surprise. Once again, a critical perspective may argue for a power imbalance between doctor and patient and the doctor's abuse of this power by using the patient's first name. However, it is the context of this exclamation and the construction of the relationship throughout the consultation that needs to be taken into account. In line 8, the patient's first name is utilised as part of a question inviting the patient to explain her poor glucose control and again in line 40 as part of an exclamation of despair. These examples, when viewed within the context, provide support for the idea that it is the process of communication that affects the outcome just as much as the actual content.

Consult R5:

1	Dr:	↑Queenie! >How you're doing?< You're becoming like a skeleton – you're looking
2		very thin to me↑
3	Pt:	I <gained> about a kilo
4	Dr:	Have you ↑gained? (00:01) How are you doing?
5	Pt:	°Okay°
6	Dr:	(00:15) > Did we recommend< Vic↑toza for you↑?
7	Pt:	°No°
8	Dr:	(00:10) Insulin resistant…(00:08) <Quee::nie↑>, what's your average sugar
		control↑? >What's your< average?
	….	

40	Dr:	You're going to get urinary tract infections, an ulcer on your foot, you're going to end up with a fatty liver of diabetes…Hey! Queenie, Queenie, Queenie! (00:10)…

In consults R2, R3 and R6 patients were not addressed by their name. Both patients in R2 and R3 were middle-aged Indian men consulting an Indian male doctor. R6 represented a patient of similar demographic description to the patients in R2 and R3 but the doctor in R6 was an Indian female doctor, younger in age than the patient. Anecdotal experience confirms that it may be customary amongst people of Indian origin not to use their first names when addressing each other. Older persons may be referred to politely as "aunty" or else by their formal title. The absence of a personalised greeting may not be considered impolite in such circumstances. Despite these superficial similarities in demographic profiles, none of these interactions demonstrated any strength in the relationships between doctor and patient. In fact, in consult R6, there is evidence to suggest that the doctor became challenged by the patient and was not equipped to deal with the imbalance of power.

In consult E1, (line 1) the doctor addresses the patient initially by her first name but later in the consultation uses both her first name as well as refers to her as "mama" – a generic, respectful form of address for a woman older than the speaker.

A similar form of generic address is utilised in consults E3 and E4 where the patients are referred to as "aunty" and "gogo" respectively. These are recognised as polite forms of address for patients of different age groups. In some instances these names are adapted to a more humorous play on words as can be seen by the terms "gogs" in consult E10, line 3 and "mamo" in consult E9, line 1.

Men are also referred to by the term "mkhulu" (E7, line 1) which would be considered a polite form of address for an older man. Other polite forms of address would be to use a person's surname (isibongo) as seen in consults E13 and E14, or clan name (isithakazelo) as referred to by a patient in FGD-2 (see Section 6.3.2.2.). Clan names acknowledge the extended family to which people belong and are traditionally used to demonstrate gratitude or respect (Turner et al., 2015). The concept of respect or hlonipha is an important part of African culture. It has been said that where a European name refers to a particular person, an African name is a person (Koopman, 1986) indicating the extent to which people are linked to their names. For a junior person to refer to an elder by their first name would be considered completely taboo and disrespectful. The use of a surname or clan name would, on the other hand, transfer respect and status to the person at whom it was directed. Of note is that patients E13 and E14 are greeted by name prior to the doctor viewing their records indicating a familiarity and recognition of the patients.

In all but one of the consults at Site 2, the patient was addressed by a name, title or a polite, generic form of address. In this consult (consult E6), the doctor began by responding to a discussion amongst patients that was continuing outside of the consultation room due to one of the patients seen to be jumping the queue.

5.4.1.5 Formal greeting sequence

The definition of a formal greeting sequence has been defined as follows: At least two completed utterances by each person. The last turn may be combined with a problem statement.

Example: Hello
Yes, hello
How are you?
Fine thanks, just my back is painful.

None of the consults at Site 1 fit the criteria for a formal greeting opening sequence. Three of the six consultations begin with a confirmation of results, symptoms or problems as initiated by the doctor within the first utterance of the consultation. R4 begins with a logistical question by the doctor asking why the patient is not at school. The remaining two consultations begin with part of a formal greeting and general, open-ended enquiry but do not include a formal "hello". None of the consultations at Site 1 except R6 result in a significant response from the patients.

Ten of the 18 consults (E1, E3-E5, E7, E10-E12, E17-E18) at Site 2 begin with a formal greeting. A few of these greetings (consult E9, E10, E11) include a humorous reference to the patients' name or play on words as was noted above in the opening greetings of consults E9 and E10.

In the opening lines (lines 1-6) of consult E4, an elderly female patient is noted on the video-recording to walk slowly into the room. Her slow, laboured gait seems to be imitated in the drawn out greeting of the doctor who mirrors her behaviour in his speech.

In three of the consults (E8, E13, E14), there is no formal greeting sequence but humour is used to introduce the consult in a more informal greeting. In all of these consults, the humour is acknowledged and the patient responds accordingly. A further consultation (consult E15) involves an elderly lady as well as her relative who comes with her and as such the greeting is adapted to acknowledge the presence of both persons. In this consultation, the patient breaks away from a formal greeting sequence to state the reason for her visit. Conversation continues between both patients and the doctor as they establish the reason for the consultation. A similar patient-initiated break-away from the formal greeting sequence occurs in E2 as well.

Two consultations (E6 and E16) are very short consultations indicating perhaps a continuation from a previous encounter and are also not opened with a formal greeting.The remaining consultation, E9 (line 1-4), does not fit the standard of two completed turns by each person but in his second turn, the doctor greets the patient by name and then acknowledges the area that the patient comes from as well as her clan name in a demonstration of respect and deep cultural awareness.

Although such interactions may seem tedious and irrelevant in a time-pressured environment, it becomes evident within the consultations, that the attention to a cultural preference establishes a firm relationship and sets a positive tone for the rest of the consultation as it develops. An additional observation was the use of pronouns during introductions. In consult E4 (see Section 5.4.1.3), the doctor utilised the plural form of the second person pronoun in line 3 to which the patient also responded in the plural. The word "siyabonga" used frequently in many consultations also employs the use of the use of the plural first person pronoun "si" rather than the singular pronoun prefix of "ngi". In the English language, individuals tend to refer to themselves by using the singular pronoun "I". The first person plural pronoun "we" refers only to a group of people and it would be considered irrational and impolite if an individual were to refer to himself in this way. However, the same does not apply in the isiZulu language. Although singular and plural first person pronouns exist, it is considered grammatically correct and socially polite to respond in the plural. This indicates that it is

customary to consider oneself as part of a community, a representative of a family and embedded within a network or relations (Mkhize, 2003). Once again, a simple, quick and effective means of paying respect to another culture which is able to build and strengthen the relationship.

5.4.1.6 Small-talk

The employment of small talk is noted in consult E1 where the patient is allowed to express her private concerns whilst the doctor is writing notes. The switch back to the doctor's agenda of discussing medication occurs quite abruptly and no further mention of the patient's family life is made after line 60. The level of the conversation where the patient speaks about her son, his education and personal family matters tends to indicate that she does share a close relationship with her doctor. None of the information gained from the patient during this interchange seems to have a direct relevance to the consultation and management of the disease other than it occupies the time whilst the doctor is making his notes and allows the doctor an entrance into the life-world of the patient.

In consult E9, the doctor acknowledges the context from where the patient comes in line 3-4 by addressing her in a manner which is deeply respectful of her culture. Although this greeting may seem unnecessary and inconsequential at the time, such acknowledgement of the patient's life-world is noted to be a crucial factor in building the therapeutic relationship.

Other examples of such interest in the patients' personal and family life are noted in consult E13, where the doctor enquires about previous heart surgery the patient has had, in consult E14 where the doctor comments and engages in a short discussion about the patient's daughter, in consult E15 where the patient talks about her uncle who was also under the same doctor's care and in consult E18 where the doctor enquires about the patient's recovery after a previous injury recorded in the notes. These enquiries as to their personal lives are acknowledged by patients commenting on their doctor's interest in them and the respect shown. Not all these examples demonstrate a direct behavioural outcome in the same consultation, but may influence future interactions and also substantiate the evidence that similar techniques may have been utilised with other patients in previous encounters leading to behaviours documented in this study.

Consult R4, lines 1-7, began with an enquiry as to whether the patient was attending school or not. This may have been intended as an enquiry into the patient's life-world and a means of beginning the consultation whilst the doctor took time to briefly look through the patient's file. However, the quiet responses by the patient tend to indicate that she is not comfortable with this interaction and the resultant comment to the patient not to wait in the queue but to request to be seen earlier, erase the attempted entry into the patient's life-world.

Patient R6 tries to convey to the doctor his challenges with regard to his work. In line 127, the patient is cut off by the doctor with a close-ended question as he explains what work he does. It is likely that he wanted to elaborate on his working environment. The doctor cut off the patient again in line 284 when he was describing the work he does and changed the direction of the conversation to a more practical discussion of his return appointments and required medication.

Entry into the life-world of the patient is recognised as an important factor in establishing and maintaining a therapeutic relationship (Barry et al., 2001). Engaging in small talk may be an effective means of entering into the patient's life-world especially during stages of the consultation where the doctor needs to make notes, write notes or where the consultation would otherwise be silent. However, the prevailing attitude of interest in the patient and respect for his / her contribution is also noted to be instrumental in the way in which the behaviour is interpreted.

5.4.2 "They don't speak English"

5.4.2.1 Verbal skills

Language is a distinctly human ability that assists in communication. It is composed of words, parts of words (morphology), the order of words (syntax) which together combine to relay the meaning (semantics) of spoken language. For the purposes of this study, elements of language that have been highlighted are the actual language system used as well as related concepts such as interpretation, code-switching and the use of terminologies. The words spoken are examined in more detail within the context of the consultations in order to understand how they contribute to the meaning of what is said and the interaction that occurs between doctor and patient.

5.4.2.2 Code-switching

The term code-switching refers to the use of two or more language systems within the same conversation (Gumperz, 1982). Although code-switching usually excludes borrowing words from other languages which affects the lexicon, such incidents presented in the study data are included here for practical purposes.

No evidence of code-switching is noted at Site 1.

At Site 2, the use of English words or phrases within the isiZulu sentences occurs on numerous occasions. In consult E12, the patient even uses Afrikaans words in his final greeting to the doctor.

Consult E12:

20	Dr:	Thanks ma. Hamba kahle. *Thanks ma. Go well (Goodbye).*
21	P:	Dankie doctor, ngibulawa idolo doctor. *Thank you doctor. My back is killing me doctor.*
22	Dr:	So, lijova ma, nansi indaba kithi *we will jova* njalo nje, zonke izinsuku. *We are going to inject you. That is why we inject all always.*
23	P:	Ok. Sale kahle. *Ok. Stay well. (Goodbye)*

The English words for mealtimes are used by both doctor and patient in Consult E4, lines 53-66(see Section 5.4.1.1. above). The days of the week are sometimes referred to in isiZulu (lines 53-69) , sometimes in English (line 71) but always demonstrated on the fingers as well. (In isiZulu days of the

week are directly translated as “the first” for Monday, “the second” for Tuesday etc to “the fifth” for Friday). Numbers are almost always referred to in English by both doctor and patients.

The term “Anglicised” refers to foreign words borrowed into the English language. In the following extract, English words have been borrowed into the isiZulu language and used as isiZulu words by adding isiZulu prefixes to the words within a sentence.

Consult E7:

26	Dr:	Amancane *awu-round* uwathatha kanjani? *How do you take the small round ones?*
27	P:	Ngithatha one. *I take one.*
28	Dr:	One ekuseni noma ntambama? *One in the morning and one in the evening?*
29	P:	Ja, ja. Yes, yes.
30	Dr:	Uzothatha three ngosuku manje. *Now you will take three per day.*
31	P:	Oh ya.
32	Dr:	One *no-half*, ekuseni uphinde futhi one *no-half* ntambama, siyezwana? *One and a half in the morning and again one and a half in the evening. Do you understand?*
33	P:	Hhayi ngiyakuzwa. *Yes, I hear you.*

A similar example occurs in Consult E11 when the doctor greets the patient goodbye. The word “bhabhayini” is not a formal English or isiZulu word but rather a play on the English word “bye-bye” made to sound like an isiZulu word.

Consult E11:

20	Dr:	Uzoqala e-room 12, ujove and then uye emaphilisini. Thanks ma. *You must first go to room 12 to get an injection then to the dispensary. Thanks ma.*
21	P:	Ngiyabonga. *Thank you*
22	Dr:	*Bhabhayini.* *Bye-bye*
23	P:	Ngiyabonga.

Anecdotal stories often suggest that native speakers of a particular language are adverse to poorly pronounced words or incorrect grammar of foreign-language speakers. However, these extracts tend to indicate that patients are comfortable with and understand the meaning of words from different languages that are used in conversation. Although not pure code-switching where entire sentences and speaking turns are in different languages, patients engage in the use of borrowed words just as the doctor does. This tends to suggest that patients do not feel offended by the use of borrowed words and are willing to compromise the language used in order to achieve the goal of conversing with each

other. This finding should be interpreted within the context of patients who have demonstrated a close relationship with their doctor as noted previously, as well as the fact that the doctor is a first language English speaker who is accustomed to conducting all his consultations successfully in isiZulu without the aid of an interpreter.

5.4.2.3 Terminology

As discussed in Chapter 3, it is recommended in medical interviews that medical terminology is avoided in favour of more lay-term explanations of the conditions and investigations discussed. This is promoted to facilitate communication between doctor and patient and allow the patient to engage in an appropriate discussion with the doctor about his/her illness. The terminology used by doctors at Site 1 does include medical words that may not be understood by patients. Such terms are most frequently mentioned when discussing blood results. The term "HbA1c" or "haemoglobin A1c" is referred to by doctors on numerous occasions. The evidence from the extracts does not indicate whether this commonly used term in diabetes management is understood by the patients or not. In some cases, the value is quantified and qualified as to whether the result is normal or abnormal.

The abbreviation "LDL"[12] is referred to in consult R1, line 43, to explain parameters within the bloods taken for cholesterol profiles. It is prefixed by the term "bad cholesterol" and used in this manner in consult R3, line 16, as well to refer to the same blood parameters. The doctor does attempt to categorise the results as being 'high' or 'low' or 'normal' or 'abnormal' but on neither occasion allows the patient any time to question the results or ask for any further explanation.

The term "carbohydrate" is also used by doctors. Whilst some patients may understand the term to refer to starchy foods such as bread, potatoes, rice or pasta; the foods the doctor is referring to include many more than just these well-known foods. Milk and milk products, fruits and fruit juices, starchy vegetables such as butternut and peas all contribute to the glycaemic carbohydrate content of the diet but are unlikely to be considered by patients as such. In consult R6 line (249-252), the response of a patient to his doctor who is briefly explaining this, indicates his confusion.

Consult R6:

249 Dr: Right. I need to remind you. We don't really want to be having so many slices of bread in
250 the day. Carbohydrate. It just gets converted in your body into sugars.
251 Pt: Into glucose?
252 Dr: Yes. That's correct.

Medications are referred to by their trade names, eg: "Lipitor®", "Aspavor®", "Glucophage®". These terms have the potential to create confusion for patients as the pharmacy may dispense drugs from

[12] LDL – otherwise known as "bad cholesterol". One of the major groups of lipoproteins tested in laboratory blood tests to monitor lipid levels in the body.

alternative manufacturers carrying different trade names depending on the supply available. Patients do not question these terms and it is uncertain as to whether they are understood or not.

Some common English words may also carry specific medical meanings. The medical meaning of "fatty liver" (specific type of liver disease associated with diabetes) used in consult R5 (line 40) and "brittle" (an old term used to refer to unstable, rapidly fluctuating glucose levels) in consult R6 (line 132) for example, are not explained to the patients. It is likely that the true meaning of these words in their medical context is lost.

Later in consultation R5, the doctor again refers to medical conditions as if she were speaking to a medical colleague not a patient, using words such as "angina" (line 97) and "MI"[13] (line 113). Phrases such as "chest pain" or "heart attack" may have been easier to understand by a non-medically trained person. "Acute" (line 113) in medical terms refers to a short period of time rather than 'severe' as it is commonly used in the English language. No specific outcome of the use of these terms can be derived as the doctor changes topic immediately thereafter, completes a form, takes the patient's blood pressure and then continues asking questions about the patient's diet. However, it should be noted that the discussion leading up to this point (lines 85-97) had displayed some evidence of an open discussion between doctor and patient, with the patient describing her symptoms and raising concerns. From line 100 onwards, the patient continues with quiet, monosyllabic, sometimes inaudible responses.

Consult R6, lines 198-202, demonstrates a situation where a patient poses a question to the doctor requesting explanation of his symptoms. A technical response is offered and the conversation is further hindered by a telephone ringing. The conversation resumes with the doctor asking another question for her clarification in line 204 and the patient's question is left unanswered

Consult R6:

198 Dr: So you do understand? So there are different formulations – short-acting, intermediate-
199 acting, some mixes
200 Pt: Yes. But you know when you sleep, right? It goes down – why?
201 Dr: There is something in your body ….With your rest… the splanchnic circulation…. I don't
202 know why you would have a surge …Is it normal for you to have a surge in the afternoon?
203 (Phone rings)
204 Dr: So how high is it going?

At Site 2, medical terminologies are avoided mainly because the consultation occurs in isiZulu and such words are not available in isiZulu. In fact, many medical terms are still in the process of being developed by linguists (Engelbrecht et al., 2010).

[13] MI - abbreviation for myocardial infarction otherwise known as a "heart attack"

In a number of consultations, the colloquial English term for blood pressure is referred to by the doctor as “i-BP”. The patients continue to engage with the doctor, indicating an understanding of the term used.

Throughout the consultations at Site 2, diabetes and glucose are referred to by their colloquial terms in isiZulu “isifo sikashukela” (sugar disease) or “shukela” (sugar). This may well influence how patients understand the disease as being purely related to sugar and not carbohydrate metabolism in general although it is a term that does not require explanation in order for patients to understand what the doctor is meaning.

One medical term that is used in consultation at Site 2, is the term “inkwethu” (consult E9, line 17) meaning “thrush”. However, the term is used firstly by the patient to describe sores on her tongue indicating that she is aware of the meaning of the word. The doctor replies using the same word in line 18 and confirms the patient’s diagnosis is correct.

Diseases are referred to by both doctor and patients as the area of the body they involve. This is customary in colloquial isiZulu language. Eg:“amatambo” (literally meaning ‘bones’ to refer to arthritis) and “ikhanda” (literally meaning head to refer to a headache).

Other words that are utilised in consults include colloquial terms not officially part of any lexicon. In consult E1, lines 5 and 7, the word “weh” is used. This is not an official isiZulu word but merely an utterance expressed in sympathy with the patient’s pain. Similar to the English phrase “oh dear” but with an onomatopoeic element in that it echoes the wailing and lamenting of the patient. The patient is noted to continue explaining her pain and describing her concerns. In consult E6, line 7, the doctor’s “awu hhe” response is seen to facilitate the patient in describing his feeling. The words tend to display some degree of empathy and concern for the patient.

5.4.2.4 Interpretation

The term interpretation in this study refers to the verbal facilitation of dialogue between people using a different language system. It is differentiated from the term “translation” which refers to the written form of language.

All consults at Site 1 occur in English. For all but two of the patients, this is their home language. Patients R1 and R4 speak isiZulu as their home languages. Patient R1 does not utilise the services of an interpreter, although there is some indication she may not fully understand what is being asked of her. In lines 96-97, the doctor explains the meaning of a dietician in a number of different ways to the patient, he then shifts topic to ask about the patient’s eyes being examined and then diverts his attention to the nurse before returning to examine the patient’s eyes himself. The patient does not contribute at this stage of the consultation until a direct question is asked of her in line 100, again after a period of about half a minute’s silence.

Consult R1:

94 Dr: ... Have you seen the dietician?

95 Pt: (inaudible)
96 Dr: Dietician? Who? Which dietician you saw? (00:02) the dietician? The person who tells
97 you about your diet and all that? Which dietician? (00:03) Alright – we'll have to send you to the dietician.
98 Dr: Did you put Drops in your eyes?
99 (00:30 - talks to nurses for a while – inaudible – then examines patient's eyes)
100 Dr: Your eyes are fine. Your blood pressure is a bit high – 140/85. Right? So we need to bring
101 the blood pressure down to about 130/80. Do you have a lot of salt?

Patient R4 does require the use of an interpreter. Initially, her relative was called in to assist and then staff nurse B was called upon to assist in interpreting. The doctor seems to be trying to ascertain at what time of day the patient is experiencing low blood glucose levels and it seems as if the patient did not fully understand the question. A second doctor (Dr2) overhears the conversation and tried to assist with some isiZulu words for the times of the day as noted in line 36.

Consult R4:

32 Dr: Okay. So when you ↑took that reading was it (.) about six to nine o'clock in the morning
33 or was it before six o'clock in the morning? When was the three measurement?
34 Pt: ↑When?
35 Dr: Nini?
When
36 Dr2: Nini? Was it ekuseni? Ntambam-?
When? Was it in the morning? Afternoon?
37 Pt: In the morning, was low=
38 Dr: =In the [morning

The use of these isiZulu words should be contrasted with the isiZulu words interspersed in English sentences in consultations at Site 2 as described above. The manner in which the patient responded in line 37 using the English word "morning" tends to indicate that she did understand the English words used in line 32-33 but had other reasons for not answering the question posed.

During this consultation, the doctor asked the patient twelve times throughout the consultation "do you understand" (lines 15, 69, 71, 190, 192, 197, 199, 200, 210, 211, 212, 214) suggesting that the doctor was concerned that there may well have been a comprehension problem in the consultation. An additional problem in comprehension seems to occur in lines 69-70 as a result of the use of compound questions. The doctor is noted to realise the dilemma in that she attempted to clarify by asking the same question again, although the way in which it was posed tends to invite an agreeable answer, given as a polite retort to a direct question.

Consult R4:

69 Dr:…Do you understand me or do you want to use a translator?
70 Pt: Yes
71 Dr: You understanding me?
72 Pt: Yes

The extract below indicates another issue with regard to language usage. The doctor asked, in line 167 to speak to the patient's mother and the patient replies in line 169 that (her mother) is present. However, when the relative arrived in the consultation, the doctor asked if this is her child to which the relative replied that she is in fact, her sister. Although this confusion in relationship cannot be fully explained within the context, an explanation of the isiZulu word "mama ncane" may assist in understanding a possible reason for this confusion. The term "mama ncane" literally translated means "small mother". This term is used to refer to a female relative, slightly older than the index person who is not the biological mother of the index person but who acts in that role due to the absence of the biological mother. In this consultation, the patient may be acknowledging the presence of her mother "mama ncane" but the relative when directly questioned by the doctor if the patient is her child, clarifies her biological position as the patient's sister. The confusion expressed by the doctor in line 175 indicates that the doctor may not be aware of the meaning of this term. Although the term is not overtly expressed in the extract, it is likely that this explanation may explain the misinterpretation that is seen to occur. The confusion of the doctor would indicate that she is not aware of this term or relationship as it may exist.

Consult R4:

166 Dr:.. I met you in December, I did exactly what I did with you now, in December. Nothing has
167 changed. (00:03) So the question is whether or not I can help you. I want your mother at the
168 next visit.
169 Pt: Is here.
170 Dr: She's here? Bring her in.
171 Dr(said as an aside): I do this at every visit – it's exhausting!
172 (00:30)
173 Dr: Mam – is this your child?
174 Relative: My sister
175 Dr: Your sister? Your sister does not listen!...

Between lines 175 and 209, the doctor repeated her advice to the patient's relative with staff nurse B simultaneously paraphrasing the doctor's words in isiZulu. This is noted to result in confusion and a complete break-down of the conversation in this consultation. The doctor was trying to convey the message to her patient that she needs to increase her insulin dose. Nurse B immediately misinterpreted this as a threat that the patient may require insulin at a later stage if she did not comply with her diet and lifestyle changes suggested. Nurse B independently is seen to threaten the patient with having to take injections (which the patient is already taking) and told her to take the medication correctly. The doctor's further instructions to increase the dose of insulin with specific amounts given are translated simply as the doctor "is increasing" and an independent remark from the nurse about the complications of diabetes. The doctor did not comment on any of these verbal interpretations indicating that perhaps she was not listening as she was writing notes or that she was not able to understand the instructions herself.

Without dedicated training of interpreters, the use of *ad hoc* interpreters has previously been identified as not as desirable (Kilian et al., 2014; Schlemmer & Mash, 2006). At Site 1, the nurse involved in interpreting was also a staff nurse who was responsible for escorting patients to other clinics in the hospital as required, for taking bloods from the patients and attending to administration such as booking appointments and locating reports and results for the patients. Whether the negative attitude displayed by the nurse as she chastised the patient for poor adherence was a true reflection

of her own attitude or an attitude mirrored by the doctor is unclear but it certainly cannot contribute to enhancing care for the patient. Watermeyer (2011) discussed the multiple roles within the consultation that an interpreter may assume. Many of these roles are observed in the consultations of this study. Certainly in consult R4 the interpreter acts as a co-diagnostician by trying to explain to the patient the importance of adherence. The interpreter at Site 1 will also hold a significant amount of power as the doctors are unable to verify what she is saying to the patients. There is also the suggestion that the nurse who is called upon to interpret may want to advocate for the patient and try to explain why adherence has been poor although it doesn't take too long in the consultation before she too is admonishing the patient.

The lack of training of interpreters is also noted in the manner in which they are used. The way in which the conversation is directed between the two main participants and not the interpreter has been suggested by Phelan and Parkman (1995) in preference to the example in consult R4 where the doctor directed her conversation directly at the interpreter. In addition, it has been recommended that short phrases or sentences be conveyed at a time; that frequent pauses be allowed for interpretation and that the use of medical jargon particularly be avoided (Hudelson, Dao, Perron, & Bischoff, 2013). It is interesting to note the decrease in use of terminology when consultations were conducted in isiZulu (see Section 5.4.2.3). Researchers advocate for the use of language that avoids technical terminology in order to diminish mis-interpretations (Hagan et al., 2013; Levin, 2006b). The use of an untrained interpreter in R4 indicates the manner in which the patient became side-lined in the conversation when communication was directed in long speaking turns via the interpreter to the extent that she no longer contributed verbally to the discussion at all. Penn (2007) argues that the success of interpreted interviews does not just depend upon the training of interpreters but also on the various other factors as well, including the relationships between the various participants. These sentiments are echoed in this study as the evidence suggests that both doctor and interpreter seem to take upon a role of power within the consultation detracting from constructive relationship-building.

Deumert (2010) notes how interpretation is often only utilised where a complete communication breakdown occurs. The implication of this practice is that the relationship between doctor and patient has already been tainted at the stage at which the interpreter is requested. These extracts tend to support this observation of Deumert where the use of an interpreter is only utilised once the relationship has already broken down. The effect of this is evident in the resultant lack of further engagement by the patient throughout the rest of the consultation. The use of an interpreter was also discussed by Watermeyer & Penn (2009c) where they commented on how patients may report to be fluent in English but that barriers in communication may still exist. This again is a possibility at Site 1 where consultations are begun in English yet understanding and fluency of the patient is poor.

Interpreted consultations have also been criticised for being time-consuming and cumbersome however, Seale, Rivas and Kelly (2013) argued that this need not be the case and that the future benefit of enhanced understanding, adherence and a closer relationship between doctor and patient will outweigh any additional time spent. The evidence from consult R4 where the indication is that information has been previously discussed with the patient and yet her adherence and understanding of the disease are still in question, bears testimony to the value of enhanced understanding and adherence through effective communication.

At Site 2, all consultations are conducted in isiZulu, the home language of all the patients and a second language for the doctor. DrE did not utilise the services of an interpreter at any stage. There is some evidence in the transcripts of these consultations that the grammar and sentence construction of DrE is not completely accurate. The transcripts in isiZulu have not been altered to correct these errors, just as English grammar has not been corrected where appropriate in the consultations occurring in English (Consults R1-R6). Table 5.3 highlights some of the language errors from the highlighted consultations. None of the examples listed results in the meaning being lost or a misunderstanding occurring, nor do the patients make any comment about the mistakes.

Table 5.3 isiZulu language errors in consultations

Consult	Line number	IsiZulu as spoken	Corrected isiZulu phrase
Consult E4	Line 15	Amanesi ethu	Onesi bethu
	Line 68	Ngesikhathi sokulala	Phambi kokulala
	Line 82	Angimazi	Angazi
	Line 83	Ngencwadi	Encwadini
Consult E9	Line 10	Awekho	Alikho
	Line 26	Siyeka lezi	Yeka lawa
	Line 36	Inyanga elizayo uzothathe la	Inyanga ezayo uzowathatha kulapha

Incorrect English grammar and sentence construction are not presented as it is assumed that the reader will be able to identify these. However, it should be noted that doctors do tend to employ more simple sentence construction in consults R1 and R4. This manner of speaking with patients who are non-first language English speakers has been demonstrated by other authors as well. A study conducted in inner city London showed how English first language doctors used incorrect syntax in sentence, misplaced pronouns and vague language when communicating with non-first language patients (Roberts, Moss, Wass, Sarangi, & Jones, 2005). Schouten et al. (2009) also demonstrated the way in which doctors altered their way of speaking when conducting cross-lingual consultations. Despite potential poor understanding due to the language barriers, these doctors were seen to check understanding less than usual and engaged in less mutual decision making with their patients. These results are reflected in consults R1 and R4 where doctors are conversing with non-first language speakers. However, despite grammatical errors at Site 2, the meaning of the sentence is not lost and the doctor is noted to check understanding of patients in a number of consultations. Perhaps it is not only the skill of DrE in being able to communicate in isiZulu but also an underlying desire to reach out to his patients and gain their trust in a similar manner to the conclusions reached by Penn (2007).

5.4.3 Opening the door to communication

5.4.3.1 Telling of opening story

As mentioned in Chapter 3, Heritage and Robinson (2006) described the value of a formal greeting and opening sequence and defined five distinct methods of opening the consultation. These types are listed in Table 5.4 with examples from the consultations in this study categorised according to this nomenclature.

Table 5.4 Classification of Opening Sequences according to types suggested by Heritage & Robinson, 2006.

Type	Example	Consult Reference
General enquiry	"What can I do for you today?"	E8, E9, E10, E11
Confirmation of problems	"Sounds like you're in pain."	R4 E6, E13
Symptoms for confirmation	"So you slipped & fell?"	R2, R5, E2, E14, E15
How are you?		R1, R6, E1, E3, E4, E5, E7, E12, E16, E17, E18
History taking questions	"Have you got a fever?"	R3

At Site 1, five of the six consultations do not demonstrate the patient telling his/her opening story, regardless of the type question posed to encourage an opening story. In consult R6, the patient responded to the initial open-ended question of the doctor in line 1 and told his story. The patient almost seemed to ignore the further questions posed by the doctor in line 6 and continued to present his story and address his own concerns. A discussion of these concerns continued for just less than two minutes before the doctor began reading through the clinical notes and the focus of the conversation changed.

Consult R6

1 Dr: Hi. How are you doing?
2 Pt: Ah. Well doctor. It comes up a bit high at night and then in the morning it drops.
3 Dr: Ok.
4 Pt: Then it comes back high. I don't know the insulin? My body - maybe its resisting the
5 insulin or what? Before when I was taking the insulin it went okay now it's up. After a while it drops
6 Dr: But? Wait…
7 Pt: Then it comes back. The 30. You take your insulin……before when I was taking the
8 insulin ...after 2 hours...then…first thing it comes up…to 8…then… it comes up…
9 Dr: and then there's a surge….
10 Pt: And then it comes down. Is it possible to go up 2 units?

At Site 2, 11 of the 18 consultations (consult E1-E5, E7-E11, E18) began with the patient explaining their presenting problem although the conversation was limited and concise and generally involved only one to two turns. In seven of the consultations (consult E6, E12-E17), the patients' initial story was not heard at all. All but one of these consultations occurred sequentially at the end of the morning session of consultations. The majority of interactions (13 out of 18) at Site 2 where African patients were consulted were seen to open with a general enquiry to which the patient responded.

Within African culture, traditional healers are accustomed to divining what is wrong with a person (Ellis, 1999). He postulates how this may lead some African patients to distrust a doctor who needs to ask "How are you?" and by implication is unable to observe for himself. Consult 14 offers a good example of where the doctor began by commenting on the patient's problem rather than asking for input from the patient. The patient was noted to respond openly and honestly despite the directive questions from the doctor in lines 5 and 7.

Consult E14:

1	Dr:	Oh Dlamini number 2.
2	P:	Yebo.
3	Dr:	Sawubona.
4	P:	Sawubona.
5	Dr:	Hawu↑ uphezulu namhlanje, yini indaba?
		Oh dear, [your sugar] is high today, why is that?
6	P:	Hhayi:: ngisebenza kakhulu dokotela, ukuphumula (.) angisakutholi.
		Hey! I am working too hard, doctor, I don't get time to rest.
7	Dr:	Hawu, sorry↓, kodwa ugwinya amaphilisi njalo nje?
		Sorry. But are you taking your tablets all the time?
8	P:	Uyawagwinya impela.
		Definitely, I take them.

The initial greeting that occurs seems to set the tone for the consultation. This is in keeping with the strategies of the CCCG as well as findings from other studies in the field (Mauksch, Dugdale, Dodson, & Epstein, 2008; Ong et al., 1995). Particularly within cross-lingual and cross-cultural settings, this greeting and initiation of the consultation may be an important factor in establishing the tone for the rest of the consultation. The type of greeting whether formal or informal and the manner in which patients are addressed differs considerably between sites. Already cultural nuances in communication are beginning to emerge as are differences in how the relationships are established.

It is evident from these examples that the telling of the opening story tends to differ depending on the context of the consultation. Some patients respond positively to open-ended questions which allow them to express their feelings and concerns, while in other contexts, responses to open-ended questions are limited. Conversely, the use of close-ended questions may not deter the patient from presenting his/her story. Statements that demonstrate a doctors' observation of the patient's health status may encourage traditional African patients to share their story but this was not observed in all cases. Further evidence from the rest of the consults will be analysed in conjunction with these opening statements.

5.4.3.2 Open-ended questions

In this study, the broad, functional definition of an open-ended question is used as one that encourages an extended response of the patient's knowledge or feelings (Silverman et al., 2005), pp. 72-77). The purpose of such a question is deemed particularly important in the beginning stages of the consultation to explore the patient's problem and allow free verbalisation of the concerns. On the contrary, a closed-ended question invites little more than a short or single-word answer. These questions are usually left towards the end of a consultation where clarification may be required rather

than an extensive enquiry into the patient's illness. The use of open-ended questions has been shown in literature to improve patient satisfaction, which in turn, has been shown to improve physical functioning (Kaplan, Greenfield, & Ware, 1989b), improve adherence (Egbert, Battit, Welch, & Bartlett, 1964; Langer, Janis, & Wolfer, 1975), diminish "doctor-shopping" (Gandhi, Parle, Greenfield, & Gould, 1997) and reduce litigation (Frankel, 1995).

In consult R1, the doctor began with an open-ended question in line 3, but then he immediately changed the meaning of his open question by the addition of the patient's name and a rising intonation indicating a question that required an answer. After a three second pause, he continued by closing the question with a limiting word of "okay?" The patient's response is noted to be quiet and limited in its extent. The doctor continued with a series of closed-ended questions in line lines 7-16 asking about the patient's diet and exercise habits all of which received very soft, monosyllabic answers.

In line 24, less than three minutes into the consultation, the doctor posed another closed-ended question enquiring if the patient was taking medication for HIV. The use of closed-ended questions at this stage in the consultation is seen to result in monosyllabic answers and the patient seems unable to discuss her experiences and concerns (lines 25-35). In addition, the use of compound closed-ended questions (five in total) with little to no pause in between in question in lines 27-28 is seen to cause the patient only to answer the last question and ignore the preceding questions. A similar grouping of closed-ended questions is noted in line 55-66 when the doctor asked the patient about her diet and lifestyle habits which also resulted in a limited response from the patient.

Consult R1:

1 Dr: Beatrice↑, I'll need an >ophthalmoscope< please. (00:10)
2 Beatrice: °Okay°
3 Dr: So↑, >how are you doing<? (00:01) Sin↑diwe? (00:03) O↑kay?
4 Pt: °ja°
…
7 Dr: >Have you been< ↑dieting?
8 Pt: °(yes)°
9 Dr: Exerci↑sing?
10 Pt: : °(yes)°
11 Dr: >Do you have< sugar in your ↑tea?
12 Pt: °(no)°
13 Dr: ↑No? Do you have <sw::eets>, chocolates, biscuits,
14 Pt: °(no)°
15 Dr: Has your weight changed> since the< last time? (00:02) >What was your< weight last
16 time? (00:05) So you were admitted to the ward (.) last time?
…
25 Dr: Are you on ART? (00:02) >Where you get it< from↓?
26 Pt: [Hospital name]
27 Dr: [Hospital Name]↑?>You get it there<? >How often you go there<? >You get it every
28 month<? How often you go there?
29 Pt: °Last month°
30 Dr: Last month? They doing your CD4 and everything – are you ok↑? Normal? What was

31 your CD4 count?
32 Pt: °Three:-twen:ty°
33 Dr: >Three-twenty< And your HIV load? >Did they tell you<?
34 Pt: Sorry
35 Dr: Your HIV load? (.) It's OK? [Better?
36 Pt: [°Ja. It's better now°
...
55 Dr: You're having >too much of< carbohydrate↑ How are you going to lose wei:ght when
56 you're having >so much of< bread<↑ And you're having rice on top of that↑ Do you eat a
57 lot of curry↑
58 Pt: °No°
59 Dr: You don't have curry↑ Oily foods↑ You eat oily foods↑
60 Pt: °Yeah°
61 Dr: So how you make oily foods↑ You make curry with oil↑ What do you do↑
62 Pt: (inaudible)
63 Dr: Beca::use (.) if you eat lots of >oily foods< (.) your cholesterol goes up (.) You eat a lot of
red meat↑
64 Pt: °Yes°
65 Dr: What meat you have↑ Red meat↑
66 Pt: (inaudible)

In consult R4, compound closed-ended questions in lines 19-31 also resulted in ambiguous answers.

Consult R4:

19 Dr: What's your average sugar measurement morning and afternoon?
20 Pt: (.)4.6
21 Dr: Okay. Let's work on the average, right? Let's work on the average. (.) In the morning,
22 what is the average lowest, what is the average highest?
23 (00:03)
24 Dr: What's your lowest measurement on your machine? What's your highest measurement
25 on your machine?
26 Pt: The lowest is (.) three
27 Dr: Okay (.) And is that in the early part of the morning or when is that?
28 Pt: >Sorry<
29 Dr: Is it in the ↑early hours of the morning or when is that? (00:05) <When you saw> that it
30 was three were you feeling (.)low, were you feeling jittery, were you feeling shaky?
31 Pt: °Feeling shaky°

This consult continues later on with the doctor trying to encourage the patient to be honest about her eating habits by presuming a young girl will be accustomed to eating chocolate (line 147-149). By verbalising this assumption, she may be trying to normalise the behaviour and encourage honesty from her patient. However, this assumption is almost immediately followed by two further questions. The patient's response is once again limited.

Consult R4:

147 Dr: >How much of chocolate< you having? You're a young woman – how much chocolate
148 you have↑ (.) Cooldrink↑ (.) Pastry↑
149 Pt: °no°

Consult R5 demonstrates an initial use of open-ended question in line 1 "How are you doing?" followed immediately with a remark inviting the patient to defend her recent loss of weight which is seen to discourage an open reply. The doctor asked again in line 4 "How are you doing?" but received a simple response from the patient followed by an extended period of silence. This manner of questioning as well as the content and way in which it is delivered is seen to prevent the patient from fully expressing her concerns. The consultation continued in lines 6-9 with specific, closed-ended questions which again received minimal responses from the patient.

Eight minutes into the consultation, in line 85, the doctor asked an open-ended question inviting a more elaborate response from the patient. The patient responded immediately and thereafter a dialogue continued with clarification of the symptoms described. The patient responded very quietly and slowly to most questions, her responses being limited in some instances (line 86, 88, 90, 92) by further questions from the doctor. Some of these questions were open-ended such as in line 87, 89, 91, 95 whilst others were closed-ended as in line 93, yet all tended to encourage further telling of the story. The context behind the patient's story is heard in line 98 when she admits that her mother passed away from similar symptoms to those which she now describes for herself. The conversation in seen to deteriorate again after this point, where a brief authoritative statement by the doctor followed by another closed-ended question in line 103 which led to the quiet, monosyllabic responses from the patient again.

Consult R5:

85 Dr: >At the moment<, any problems, any complaints you >want to mention< to me?
86 Pt: °Sometimes I get some pain in my chest – I don't know-°
87 Dr: Is this the first onset of chest pain↑? >Tell me about< your chest pain↑.
88 Pt: °It's been (.) coming on, sometimes when I rest:: it's been-°
89 Dr: So >what did you do< at the time?
90 Pt: °I just sat and relaxed and-°
91 Dr: And what happens?
92 Pt: °It comes now and again and then it goes away-°
93 Dr: Did you get it checked out?
94 Pt: °I was worried about it (.) but then it went away°
95 Dr: So it lasted ↓thirty minutes? So >what would you say< it felt like?
96 Pt: °It's like, it's a severe ↓pai:n°
97 Dr: >Anyone in your ↑family< with this? (.) Ischaemic heart disease? (.) Angina?
98 Pt: °My mom died…°
99 Dr: How old was she?
100 Pt: (inaudible)
101 Dr: This is something you must bring to my attention. Not sit at home and self-treat. Okay?
102 When you have pathology, you need to come to hospital, Queenie! At the moment (.) <are you in pain>?
103 Pt: No

Almost without exception, the doctor at Site 2 used open-ended questions only in the first opening lines of all consultations. Thereafter, closed-ended questions were used almost entirely. These closed-ended questions did not seem to hinder discussion between doctor and patient as conversation continued in fairly equal turns throughout the consultations.

An exception is noted in consult E12, where the doctor wishes to enquire when the patient's medication ran out. The patient had not mentioned in the consultation that the medication had run out but from the juxtaposition of the statement, the doctor seems to be referring to the high blood pressure reading which he assumes is due to the lack of medication.

Consult E12:

7	Dr:	I-BP iphezulu, ushukela is right. Amaphilisi aphelile nini? Namhlanje? Izolo? *Your BP is high, your blood sugar is alright. When did your pills run out? Today? Yesterday?*
8	P:	Aphela namhlanje. *They ran out today.*
9	Dr:	So ngicabanga sizokhuphula amaphilisi akuchamisayo. *So I think we will increase the dosage of the pills that will help you to urinate.*
10	P:	Ok.

The close-ended question posed in line 7 is further limited by providing potential answers to the question. The patient obliged with her response but the doctor then changed the direction of the conversation choosing not to comment on her response and simply deal with the problem of future management. The honesty of the patient's response in line 8 seems at first incongruous with the manner in which the question was posed in the previous line. There seems to be no evidence from earlier in the consultation as to why the patient should respond with such honesty to these questions, although the way in which the interchange continued may provide some explanation. In line 9, the doctor continued quite matter-of-factly without chastising the patient for not taking her medication, without commenting further on the elevated blood pressure and demonstrating his willingness to assist the patient in dealing with her disease. It may be possible that the context of this consultation occurs between two individuals who have had previous encounters with each other and where acts of encouragement and support demonstrated in past encounters allow for honest, open exchanges to occur.

The interchange that occurred in consult E4, lines 11-28 consisted almost exclusively of close-ended questions posed by the doctor to the patient which did not seem to hinder conversation. The patient engaged with the doctor in trying to find out where the nurses recorded her glucose readings and finally related the story of her relatives taking her to a private doctor when her glucose levels had gone too low at home. The doctor made no comment about the patient's decision to see another doctor. Once again, it is possible that this patient is able to respond honestly and openly based on the relationship that has been built up on previous encounters. Although this patient did not immediately respond to the manner in which the doctor greeted her and the empathy he seemed to show by mirroring and acknowledging her slow, laboured gait in line 3, this extract demonstrates the close relationship shared by doctor and patient and the way in which they are seen to work together to achieve the goals of the consultation.

Consult E4:

11	Dr:	Shukela↑ akachofozanga↑
		Your sugar? Did you prick?
12	P:	Ngichofozile.
		I pricked?
13	Dr:	Babhale kuphi?
		Where did they write?
14	P:	Ababhalanga la?
		Did they not write here?
15	Dr:	Eyi amanesi ethu[14], °vele°
		Our nurses! Really.
16	P:	Angazi
		I do not know.
17	Dr:	Ayi cha ababhalanga, ba↑thini?
		Did you not argue? What did they say?
18	P:	>Bathe uthi 7< bani angazi noma >babhale la< noma >babhale la< angazi.
		They said it is seven-something. I do not know whether they wrote here or there.
19	Dr:	Akabhali ↑lu:tho.
		She did not write anything.
20	P:	Kodwa ngangi=
		But she said...
21	Dr:	=Bathi 7 ba?
		They said seven point?
22	P:	7 point ba.
		Seven point something.
23	Dr:	Uyazichofoza ekhaya↑
		Do you prick yourself at home?
24	P:	Mh::mh, >ngiyachofoza ekhaya ngoba manje kwesinye isikhathi usuke wehle<
25		kakhu:lu. >Ngelinye ilanga nje bathi bethi bangiletha layikhaya bangabe beseza babona ukuthi imoto ngeke isafika layikhaya baze bangifaka kudokotela, usuwehle< kakhu:lu. <Ma:nje> ngase ngithenga umshini. Manje bengizocela nje ukuthi ungangipha yini izinti?

Yes, I prick myself at home because sometimes it gets really low. The other day they tried to bring me here but they decided to take me to a private doctor instead because they realised that the car was not going to make it here on time. The sugar levels were too low. So I decided to buy a machine. So today I came to ask if you can give me the sticks.

From these examples it can be seen how open-ended questions when utilised at the correct time, and accompanied by a reciprocal attitude can encourage patients to tell their story and provide the doctor with valuable information. However, the use of closed-ended questions depends on the manner in which the questions are phrased and the context in which they occur as to how they are received. Patients are seen to respond openly in some instances to closed-ended questions where the prevailing attitude and tone are perceived as enabling.

A simple semantic classification of questions as being either open- or closed-ended as defined by the question structure and type of words used has previously been criticised as being inadequate by other

[14] See Table 5.3

authors (Sandvik et al., 2002). Analytical techniques of assessing conversation place value in the outcome of the utterance as well as the context in which the utterance occurs and acknowledge that in naturally-occurring language that the form and function of speech may differ from how it is interpreted. These results confirm the ability of closed-ended questions to be used in a manner that allows for adequate response and the structure of questions to be adapted depending on the situation in which they occur. In many of these instances, questions were structured for use by second language speakers and thus sentence construction may also have been simplified in favour of closed-ended questions. The particular use of closed-ended questions when conversing with African patients may be a mechanism to make observational statements that indicate the doctor is attuned to the needs of the patient in a similar manner to that described by Ellis (1999).

5.4.4 Checking a checklist

As described in Section 3.2.1.2, doctors emanate from the sub-culture of medicine which focuses attention on various clinical markers, risk factor identification and notable elements of the patients' history. These are never more important than in managing diabetes where scientific research has shown how reduction of these risks and challenges can lead to better management. These elements are highlighted in the sections below but a critical view is taken on how they are seen to influence behavior within the consultation.

5.4.4.1 Identification of doctor

The importance of patients being treated by a named health care provider is discussed in the National Patients' Rights' Charter that governs good practice for health care professionals in South Africa (HPCSA, 2008). The Charter suggests that such identification will contribute positively in the delivery of a quality health service.

None of the doctors introduce themselves to any of the patients at either site. These consultations are all follow-up encounters where the patients have consulted with the doctor previously. At Site 2, the doctor's name plate is displayed on the door outside for patients to read as they enter. At Site 1, six doctors share a consultation room and the room is unlabelled. However, close relationships are noted within these consultations and not necessarily those where demographic profiles are matched or where excessive time is spent with patients nor even in consults where great attention is paid to the personal history of the patient. There seems to be a more subtle explanation for how these relationships develop which is elaborated on in Chapter 6 by examining the sentiments of the participants that may support the growing relationships and explain the interactions in more detail.

5.4.4.2 Personal and family history

Gathering information about the personal and family history of the patient can be particularly important especially in the management of a chronic disease where lifestyle changes are necessary in order to achieve management goals. This has been referred to previously as the life-world of the patient, the personal and contextual factors that influence behaviour.

In consult R3, line 28, the patient refers to a significant life event which he mentions has influenced his ability to keep to his glucose testing schedule. The doctor's words "I'm sorry about that" in line 29 are not accompanied by the appropriate non-verbal cues and he immediately continues by accusing the patient of cheating and demanding an explanation for his behaviour. Prior to this the patient had already responded in line 23 with quiet, simple answers possibility giving a clue to his underlying life-world stresses. The patient's turn in line 26 is interrupted by the doctor with a further question leading to the patient providing the explanation for his behaviour in line 28. From this point on, the patient's replies become much softer spoken, shorter and more concise. The non-verbal or short, monosyllabic responses that result are noted from line 30 onwards, indicating that the impact of his father's passing are lost in the conversation.

Consult R3:

22 Dr: You're giving me such good sugar readings. <Are these true> or are you ly:ing?
23 Pt: °It's true (.) I am testing°
24 Dr: If you're ly:ing (.) you're not cheating me, you're cheating yourself↓. These readings
25 don't correspond with your >haemoglobin A1c< of 11.8 and your sugars today are 7.6
26 Pt: (00:01) °From December=°
27 Dr: =So from December you're just putting down figures?
28 Pt: I lost my dad↓-
29 Dr: >I'm sorry about that< but you're just putting down figures (.) right↑ Answer my question.
30 Pt: (nods)
31 Dr: >So you're cheating↑<
32 Pt: (nods)
33 Dr: I can >understand you lost< your dad, I(.) I (.) <I: can> >sympathise< but how old are you↑
34 Pt: 31

In contrast to this, another example of the patient expressing her personal concerns in consult E1 is highlighted below.

Consult E1:

4 P: Ngiyaphi::la, eyi kodwa >ngiyafa isibhobo<.
I am good, but I have sharp pains.
5 DR: Weh::::
Oh dear
6 P: NgiyaFA
I am dying
…
11 Dr: Hawu↑ uyaguga
Oh, you are getting old.
12 P: Sengifile!
I am dead!
13 Dr: Thina sonke siyafa nathi.
We are all dying.
…

17 18	Dr:	Hawu kahle bo, awuze la-ke. (00:03) <Eh:: mama> (00:02) sidinga ukukhuphula umjovo futhi namhlanje. Siyezwana↑. Uzojova manje, 18 ntambama. There is no way. Come over here. Mama, we need to increase your injection again today. Do you understand? You will now inject 18 in the afternoon.

The patient states quite emphatically in line 4 and again in line 6 that she is suffering. The direct translation of the root word "–fa" is "die" but is used in context to mean "I am suffering" or "I am dying of pain". The doctor jokes with the patient in line 11 blaming her complaints on old age and displaying a form of empathy with her that everyone is dying in line 13. Although the doctor seems to be making light of the patient's complaints, he juxtaposes this conversation with careful consideration to her well-being in lines 17-18 and the patient is seen to respond with a wry smile. Similar humorous comments are noted in consults E11 and E12 as a means of displaying empathy when complaints are discussed.

Again in consult E2, the patient is noted to express personal concerns. The elongation and change in pitch of the word "sorry" in line 61 as well as the deflection in tone seem to mirror the sentiment conveyed by the words themselves.

Consult E2:

59	Dr:	Yini indaba lihambe livaleka? *What is wrong?*
60	P:	Cha, ukukhathala nje, kubuhlungu nje. *No, I'm just tired, it is just painful.*
61	Dr:	Hawu↓ (.) So::rry↓ (Sigh) *Sorry.*
62	P:	Ukuthi kuyankenketha *These pains!*
63	Dr:	Iminyaka yakho mingaki, mama? *How old are you, mama?*

5.4.4.3 Blood glucose testing

Regular blood glucose monitoring is an important aspect of diabetes management. The exchange that occurs in consult R3 (lines 22-34) has already been presented above although similar exchanges occur in other consultations as well. In consult R4, the patient has left her diary with recorded readings at home and the doctor is therefore trying to get an idea of what the range of glucose readings is in order to adjust the medication required.

Compound questions are noted in lines 21 and 22 with a resultant silent response from the patient and consequently the doctor repeats her questions in lines 24 and 25. In line 26, the patient hesitates slightly before giving the blood result the doctor has requested. Later in the consultation (lines 54-56) the doctor expresses her distrust towards the patient and the values she is giving possibly referring to the repeated value of "three" as an answer to questions posed by the doctor. In line 26, she indicates that her lowest blood value is three and in line 53 the patient estimates that she experiences low glucose levels three times a week.

Consult R4:

Dr: Okay. Let's work on the average, right? Let's work on the average. (.) In the morning, what is the average lowest, what is the average highest?
(00:03)
Dr: What's your lowest measurement on your machine? What's your highest measurement on your machine?
Pt: The lowest is (.) three
Dr: Okay (.) And is that in the early part of the morning or when is that?
Pt: >Sorry<
…
Dr: Many? So u::sually, how many times do you find it's around three? How many times is it under three and a half↑?
Pt: How many times?
Dr: mmmm↑ – in a week? How many times would you find your sugar is coming in under three point five?
Pt: (00:03) Three times
Dr: You are <guessing> (.) from the TOP (.) of your head! You will bring me your diabetic diary next time! Okay, Bonisile? Because I don't accept that! (.) Afternoon time – what's happening with the afternoon sugars?

In consult R5, the doctor is seen to display her distrust of a patient again with regard to the patient testing her glucose levels (line 13) collecting strips for her glucometer (lines 16-22) and recording of her tested glucose levels (lines 28-30). The patient appears to answer defensively each time. From line 34, her response tails off and thereafter she reverts to monosyllabic or short phrase answers.

Consult R5:

…Queenie, what's your average sugar control? What's your average?
Pt: Between 20 and =
Dr: =Give me your diabetic diary
Pt: (inaudible)
Dr: So, in essence, you haven't checked
Pt: I've been away, I've been admitted for high sugars-
Dr: But why didn't you come through and see us
Pt: I didn't have any strips-
Dr: STOP! STOP! STOP! You are clever, you are educated, you are intelligent. If it was an error on someone's part that you were missing…. 4th Feb – there we go! Two strips administered
Pt: They didn't give it to me
Dr: But pharmacy has indicated one plus
Pt: They didn't give it to me
Dr: So why didn't you bring it to our attention
…
Dr: But that's not true what you're saying! Look here! Here you're sitting at 11.7 – let's just go through the random visits, right! You, my dear, the day I met you, I TOLD you, you are going to head for insulin resistance. Then there's absolutely didly-squat I can do for you….

The interruption of the patient in lines 10, 14 and 16 culminating in the exclamation in line 17 emphasising the doctor's frustration at hearing the excuses offered by the patient. Frustration is also seen to be expressed by the doctor in her response in line 30, "there is didly-squat I can do for you now."

This interaction should be compared to the conversation that occurs in consult E4 and how a poorly literate patient is able to take ownership of her regular home glucose monitoring when attention to cultural preferences in the form of hand gestures is observed (see Section 5.4.1.1).

5.4.4.4 Diet and exercise history

Collecting information about the patients' diet and level of physical activity are important aspects to diabetes management. Doctors at Site 1 are noted to utilise a tick-sheet in the front of the patient's file to aid them to remember these aspects of patient care.

The following extract from consult R1 shows the doctor trying to gain information about the patient's regular physical activity. The patient is seen to use the number three as an answer to many of the questions. In line 77 and repeated in line 79, she says she walks three kilometers. In line 81, she seems to indicate she walks three times a week and then in line 85, she mentions this walk takes her 30 minutes. The hesitancy before each of these values is noted.

Consult R1:

76 Dr: Okay (.) so how far you walking↑
77 Pt: (.) °Three kilometer°
78 Dr: sorry↑
79 Pt: (.) Three kilometer
80 Dr: Three kilometers a day!
81 Pt: °No (.) Three times°
82 Dr: Three times a week↑ How many minutes does it take you↑
83 Pt: Sorry↑
84 Dr: How many minutes does it take you to walk three kilometers?
85 Pt: Ummmmm (.) °Thirty minutes°
86 Dr: Thirty minutes↑ Three kilometers. You walk fast or slow↑
87 Pt: I'm trying to walk fast but I can't

In African culture it may be perceived as disrespectful to disagree with or not have an answer for a person of senior social status (Turner et al., 2015). For this reason, patients may choose to give a dishonest reply in preference to no answer at all.

In consult R2, the patient noted that his wife has been away for a few months and he offers this as a reason for putting on weight (line 4-8), forgetting to take his insulin (line 60-67) and not watching his diet or maintaining an exercise regimen (line 87-97). The doctor's responses seem unsupportive of the problem as the patient has reported – see lines 7, 62. In line 96, the doctor makes a reference to the patient's wife being away as a reason for the patient not adhering to his correct diet. The patient does

seem to agree with the doctor and takes the blame for his weight gain as he does in line 67 where the patient takes the blame for the insulin not being effective.

Consult R2:

4 Pt: I put on two kilos
5 Dr: You put on two kilos? How come you put on two kilos?
6 Pt: My wife wasn't at home for three months
7 Dr: So you didn't bother to cook?
8 Pt: No, No, not that.
…
60 Dr: And everyday what time you're taking your insulin? Same time? Same pattern?
61 Pt: No. Normally about quarter past six.
62 Dr: So why yesterday was different? You forgot? Or you felt like being different?
63 Pt: No, no the wife was away but now she's back now.
64 Dr: Is that the only time you had a low sugar?
65 Pt: That once and then in December. I know why. I never eat.
66 Dr: I can't change your insulin because of that
67 Pt: No leave it. Leave it
…
86 Dr: The one for the hypertension and cholesterol? No, they've got that in private. That was
87 good. Not here. But your blood pressure is good, it's ok. So we'll see you in 6 months. So
88 exercise, you're doing?
89 Pt: I've got an orbitrek
90 Dr: How many minutes?
91 Pt: About half an hour every day
92 Dr: Wow – the orbitrek is good!
93 Pt: And the gym – weights. To build muscles, you know.
94 Dr: It's ok if you look after yourself.
95 Pt: I watch what I put in my mouth
96 Dr: Except for the last 3 months. It just shows how important the wife is! Isn't it?
97 Pt: You're right! Your body tells you – that's not right. (00:05) I don't eat Wed. Wed,
98 Saturday, Sunday – no red meat.

Similar enquiry into the patient's adherence to his diet and exercise routine are seen in consult R3. This section of the consultation follows the earlier encounter where the patient speaks of his father's passing and the impact that this life event has had on his glucose testing schedule. The patient offers honest responses that reflect his lack of adherence with the management plan expected of him. The doctor's responses to these admissions in lines 78, 82, 84 and 86 with statements emphasising the patient's misbehaviour, are seen to result in non-verbal, quiet and reserved responses from the patient once again.

Consult R3:

74 Dr: So::: you're only taking insulin and metformin↑
75 Pt: °Yes°
76 Dr: Exercise↑ (00:02)
77 Pt: (shakes head)

78 Dr: You're not doing any↑. So obviously (.) if you're a diabetic you need to be on a diet. Am I right↑
79 Pt: (inaudible response)
80 Dr: Do you have any sugar in your tea↑
81 Pt: One >teaspoon of sugar< (.) Ja (.) One
82 Dr: You know you're not supposed to have SUGAR in your tea↑
83 Pt: °mmm°
84 Dr: So WHY you having it↑ (.) Sweets, chocolates, biscuits↑
85 Pt: °I do have°
86 Dr: I know↑ you have them. (00:03) This is the <last time> (.) I want to see you in a month's
87 time (.) If >these things< don't improve:: (.)You know: as I said before (.) you're just wasting
88 the opportunity of being here
89 Pt: °Ok °

5.4.4.5 Adherence to medication

Adherence to prescribed medication is key to achieving goals and targets in chronic disease management as described in Chapter 2. The following example from Site 1 shows the difficulties experienced in achieving good adherence despite regular visits to the hospital. Quite early in the consultation prior to the earlier problem of blood glucose testing, the doctor is seen to chastise the patient for not listening to advice. The words "last time" are repeated as the doctor expresses her frustration. The choice of the word "telling" as well as the emphasis on that word implies the patient take on a more passive position in the discussion. The lines end with the doctor referring to the patient by her first name and placing emphasis on the name before an upward inflection in tone denoting a question. The patient's responses in line 13 and beyond are noted to be soft and monosyllabic.

Consult R4:

11 Dr: But you know, you're the >very same person< I spoke to last, last time. Last time, when
12 we spoke about this. Do you listen to what I'm telling you, Bonisile↑
13 Pt: °Yes°

A soft tone of voice in African culture is used as a sign of respect for an elder (Turner et al., 2015). Although in western culture the response in line 13 may be perceived as the patient being disengaged or disinterested in the conversation, in the African custom the patient may possibly be showing respect for the senior doctor whose power and status in life the patient is acknowledging.

Later in the same consultation, similar findings are noted where the doctor seems to be getting more frustrated by the patient's perceived lack of engagement in the conversation and failure to adhere to her management plan.

Consult R4:

105 Dr:…I go through this every time and every time you don't listen.
106 …how many times we can talk the same things…
108 …So I'm just here to burn your ears?...
…
164 Dr: >You eat those too↑< Why you not telling me↑ I'm not a mind reader. I'm not here to
165 sco:ld you, I'm here to help you (.) You're a >young woman<, you're taking high doses of
166 insulin, you're putting on weight, your >Hba1c< is not controlled (.) I met you in December, I
167 did exactly >what I did< with you now:: in December. NOTHING has changed. (00:03) So the
168 question is whether or not I can help you. I want your mother at the next visit.

The consultation continued with the doctor threatening the patient that she should be exposed to patients suffering from severe complications of diabetes occurs in line 218-219 in order to improve her adherence: "Then maybe you'll wake up!" The patient did not offer any response to this comment and is noted to avoid eye contact with the doctor. After a five second pause, the doctor continued calling upon nurse B (Beatrice) for assistance. Multiple exclamations, rising intonations and expressions of frustration are noted in this section of the consultation. ("Ahhh " in line 221, "FATHER" and "oh gosh" in line 222. In addition, the words chosen by the doctor reflect the judgement being made on the patient. ("you've got in be joking!" in line 217, "banging" in line 226, "apathetic" in line 227, "stupidity" in line 230). The phrase in line 223 "taking tea with her sugar" is reflected as it was spoken, with emphasis on the word "tea" implying that more sugar than tea was consumed.

Consult R4:

217 Dr: You have got to be JOKING! That is your answer↑ If you're not interested then there's
218 no point in coming to see specialists. Right (.) I think you must spend some time in the ward
219 meeting people with no legs and who are blind. Then maybe you'll >wake up<.
220 (00:05)
221 Dr: Ahhh:: Beatrice↑ You know how to care for your feet as a diabetic? Foot care↑
222 Beatrice↑ FATHER↑ Ahhh:: (00:05) You grade 11↑ Sure↑ Oh gosh! (00:05) Beatrice (.) this
223 young woman as a diabetic (.) she's taking tea with her sugar↑. Her response as to why
224 >she's taking< sugar is (.) let's not (.) >you know< (.) just >speak to her< because I'm not
225 sure↑ if maybe I am intimidating her: or what's the reason that she's so poorly compliant?
226 I'm really banging my head against a wall. Her Hba1c is 13.8 and she's getting fat and she's
227 apathetic and there's only that much >I can do<. She eats packet chips at school, putu (.) the
228 diary (.) I mean (.) you can >look at it<, Beatrice, just read. Maybe there's a language barrier
229 here. But you can't do nothing, you can't say you don't know why you take sugar, really
230 now(.) that's bordering on (.) you know, stupidity. Speak to her thoroughly (.) she needs to
231 know about <eye and kidney disease>, <disease progression>: She's taking as a young
232 woman, 38 and 24 (.) bordering on 80 units (.) she's going to end up with insulin resistance.
…
234 Dr: =You will go to forty and 26(.) forty and 26 (.) I'll write it on a >piece of paper< for you.
235 Just speak to her. Because this lady ↓(.) the lights are on and no one's home↓
…
238 Dr: =↑okay dear. Forty units >in the morning<, twenty-six in the afternoon. Okay↑ Let's
239 just do a thyroid function for you as well (.) Very apathetic facies (.) …

The idiomatic expression, "The lights are on but no one's home", used by the doctor in line 235 is spoken to nurse B referring to the patient although the remark is spoken in front of the patient as is the remark in line 239 ("very apathetic facies"). This phrase is a combination of a description of the patient's perceived behaviour (apathetic) as well as a reference to the medical term, facies. This is a specific term describing "distinctive facial expressions or appearances associated with specific medical conditions" (Dorland, 2011). "Apathetic facies" is not a recognised medical term *per se*. The patient is noted to offer no verbal or non-verbal response after line 216. After line 169, the only responses the patient offered were a simple "Yes" in line 213 and "I don't know" in line 216, indicating a complete lack of rapport and break-down in the relationship between patient and doctor.

Schillinger et al. (2003) discuss the importance of checking patient understanding particularly within the context of patients with low health literacy. This consultation indicates that understanding and comprehension may be of particular concern in the patient although the doctor does not stop to check this understanding at all. The way in which this dialogue takes place should be contrasted with the interchange between DrE and patients E4 and E7 presented in Section 5.5.3.2 and the particular use of hand gestures to convey meaning.

In consult R5, DrR2 attempts to offer medication to her patient that she believes will assist her adherence and glucose control but is only available in the private health sector. The medication is not available through a public hospital and comes at a significant personal cost to the patient (stated by the nurse as being R1500/month[15]). The doctor asks on two occasions (lines 64, 83) if anyone in the family works who may be able to afford the medication costs. A terse reply is noted on both occasions, indicating a possible lack of respect felt by the patient for her financial situation. This patient also indicated a problem with regard to not having adequate resources to test her blood glucose levels at home in lines 13-16.

Consult R5:

59 Dr: I know! I know! There's another agent I'm thinking of for you – it's…the finance part will
60 have to come from your side
61 Sr TN: One thousand, five hundred rand a month
62 Dr: Father!
63 Pt: I'll never make it.
64 Dr: Nobody in your family works?! Queenie?
65 Pt: No
…
83 Dr: So there's nobody in the family that's employed?
84 Pt: No
85 Dr: At the moment, any problems, any complaints you want to mention to me?

DrR1 also seems to express his frustration at the patient's perceived lack of interest in his diabetes management and failure to adhere to advice given. The following extract from consult R3 occurs just after the patient has shared his stress of his father's passing.

[15] Compare this cost to that of government disability grant allowance of R1350/month at the time of this consultation (Feb 2013)

Consult R3:

43 Dr: you see unfortunately, I'm old in this game. And I know exactly when I look at all these
44 figures when there's a problem. You can't cheat. You're cheating yourself, not me. So now
45 what do you want to do? So your haemoglobin a1c last time, in January, was 9.2….
46 Pt: (inaudible)
47 Dr: you know, people like you, I get tired to be perfectly honest. There are hundreds of
48 patients waiting out there to come to this special clinic. So we carry on shouting, ranting,
49 raving but nobody wants to listen. So it's up to you. You want to listen, to take advice, then
50 you have to adhere to what we're saying. You don't want to listen to our advice, because the
51 doctors have got no time here, they're seeing patient after patient….(inaudible)… your
52 sugars are high but we can't talk to you because you don't listen. You you've had the
53 opportunity to stay here or do you want to be discharged?

In admonishing the patient, the doctor emphasises that the patient should be grateful for the services available to him. The doctor notes that he works in a "special clinic" where patients are "privileged to be here" and expects patients "to listen, to take advice…to adhere to what [they] are saying." He goes on to describe how busy the doctors are and the responsibility of patients to listen to them. It is likely that this conversation forms a pivotal point in the consultation and the break-down of the doctor-patient relationship. A patient-centred approach would argue that it is not a major goal of patients to achieve adherence and therefore these behaviours are not prioritised. However, in the extract below, a different approach is taken where the doctor uses humour to make light-hearted comments during the consultation in response to patients' adherence concerns.

Consult E15:

37 P: Oh, ngizoshona uma ngiwuyeka?
Oh, will I die if I stop taking it?
38 Dr: Yebo, ngokushesha. Uma uyeka ukujova hamba uyothenga ifosholo.
Yes, quickly. If you stop taking the injection you must go and buy a shovel.
39 P: Ifosholo lokugqiba?
A shovel to cover the grave?
40 Dr: Ya.
Yes
41 (All laugh)

Humour is also seen to be used at the end of consult E16 (line 15) where the doctor recognises the patient did not attend the hospital the previous month and would therefore have defaulted on her medication. The patient's colloquial retort not only gives an insight into the patient's life-world but also acknowledges her absence.

Consult E16:

13	P:	Ok doctor.
14	Dr:	Thank you very much.
15	Dr:	Ucashe kuphi ngenyanga edlule?
		Where were you hiding last month?
16	P:	Bengisathe shwi kancane.
		I had gone somewhere for a short while.

These examples of utilising humour to draw on the commonalities between doctor and patient may well form a stronger relationship between them. The responses of the patients do allow for an entry into the world of the patient and although these are not actively explored by the doctor at the time, there does seem to be an understanding between them of the context in which diabetes is being managed.

Patients seem able to present their difficulties with regard to adherence and doctor and patient are seen to work together to plan the further management required. In consult E1, the patient mentioned she missed her insulin injection that morning. Such information would be vital to the doctor in order to calculate further doses and adjust treatment accordingly. The doctor did not make any comment or judgement on the missed insulin doses, but mentioned that he was actually referring to injections for arthritis.

Consult E1:

24	Dr:	Because ushukela uphezulu and then umjovo↑.
		Because the sugar is high. And then the injection?
25	P:	Ngikhohlwe umjovo ekuseni.
		I forgot the injection this morning.
26	Dr:	>Cha cha< umjovo wakho wamathambo uyawuthanda?↑
		No, no, I mean the injection for arthritis. Would you like it?
27	P:	Eyi ngiyawucela, sengifile nayingalo, iyankonko:tha, kuyankonkotha, (00:02)
28		iyabhonqoka, isibhobo neithambo. Ngiyethemba-ke ukuthi ngizoba ngcono.
29		Ngibuyise nephepha, kwathiwa asithathe igazi.
		Yes, please, I would like to have it. I have run out. My arm is killing me. It is aching. It feels like it is breaking, the sharp pains in the veins. I hope I will get better. I am also returning this piece of paper. We were told to take blood samples.

The problem with adherence and visiting different doctors is highlighted in consult E4. Medical records are not shared between private and public health systems and it would be up to the private doctor to write a note explaining his treatment to the hospital or else rely on the patient to provide the information. The patient volunteered the information to her doctor at the public hospital that her family took her to see a private doctor due to the public hospital being a further distance away. The information shared would be crucial to allowing the patient to adhere to her medication regime and manage her disease successfully. The result of this open discussion is that the doctor at the hospital was able to oblige with regard to providing glucose testing strips for the glucometer that she was given.

Consult E4:

23	Dr:	Uyazichofoza ekhaya↑ *Do you prick yourself at home?*
24	P:	Mh::mh, >ngiyachofoza ekhaya ngoba manje kwesinye isikhathi usuke wehle<
25		kakhu:lu. >Ngelinye ilanga nje bathi bethi bangiletha layikhaya bangabe beseza
26		babona ukuthi imoto ngeke isafika layikhaya baze bangifaka kudokotela, usuwehle<
27		kakhu:lu. <Ma:nje> ngase ngithenga umshini. Manje bengizocela nje ukuthi ungangipha yini izinti? *Yes, I prick myself at home because sometimes it gets really low. The other day they tried to bring me here but they decided to take me to a private doctor instead because they realised that the car was not going to make it here on time. The blood sugar levels were too low. So I decided to buy a machine. So today I came to ask if you can give me the sticks.*
28	Dr:	Ezinjani izinti. *What kind of sticks?*
29	P:	Izinti lokhu. *Those sticks.*
30	Dr:	Ngifuna ukubona ibhodlela. *May I see the bottle?*
31	P:	Nanti. *Here it is*
32	Dr:	Angazi noma akhona but ngizobhala lapho. *I do not know if they are available but I will write it here.*

A similar utilisation of the public and private health care systems was noted in consult R6. However, the doctor dedicated the majority of the consultation to understanding the insulin regimen the patient had been taking and from where he has been receiving it.

Different definitions of shared decision-making have been suggested, with some authors stipulating that a mutual goal should be reached, while others explain that participants may agree to disagree emphasising the importance of the process rather than the outcome (Makoul & Clayman, 2006). Either way, shared decision-making was not very well achieved in any of the consultations. In most instances, patients simply did not disagree with the doctor and merely accepted the management plans suggested without any discussion taking place. Consult R6 did indicate significant discussion between doctor and patient and the frustration evident on the doctor's behalf may well indicate that she was unaccustomed to being challenged in this manner. The consultation ended with a result with which both doctor and patient were satisfied but it was certainly not mutually negotiated. The decisions of both the doctor and the patient should be equally valued and respected if a "meeting of experts" is to occur that addresses both agendas (Makoul & Clayman, 2006; Tuckett, Boulton, Olson, & Williams, 1985).

A difference between sites begins to emerge as the above examples indicate varying content and manner of dealing with patients. Although the researcher does not wish to make general assumptions about the sites, certain trends are indeed evident. A summary of various references to adherence from the consultations is presented in Table 5.5.

Table 5.5 Summary of adherence indicators at both sites

Consult	Comments related to poor adherence
R1	Not dieting, not exercising. HbA1c too high. Cholesterol profile abnormal. Blood pressure high. Didn't bring tablets.
R2	Gained weight. Poor diet. Cholesterol profile abnormal. Didn't record low glucose readings.
R3	High glucose readings. Not exercising. Poor diet. Uncontrolled diabetes causing weight loss. Cholesterol profile abnormal. Not testing glucose readings often enough. Forgets to take insulin at times.
R4	Left diary at home. Gaining weight. Not testing glucose readings. Unable to account for high and low glucose readings. Poor dietary habits. High HbA1c.
R5	Losing a great deal of weight. Hasn't checked blood glucose readings. High HbA1c. At risk for complications. Didn't report chest pain to doctor initially.
R6	Not taking prescribed insulin regimen. Didn't bring diabetic diary. Diet not correct.
E1	Indicates medication has run out prior to consultation
E4	Has been to see private doctor for check-up in between consults with hospital doctor, able to adhere to home glucose testing schedule, records glucose readings in diary.
E12	Indicates medication has run out prior to consultation

There is a great deal of focus on clinical aspects of adherence particularly at Site 1. It is here that a checklist guides the doctors' approach of addressing all potential risks factors and complications of diabetes. These results would certainly echo the findings of other studies that have highlighted the difficulty for patients in adhering to diet and exercise programmes and in the complex scheduling of medication (Grant et al., 2011; Heath, Luff, & Sanchez Svensson, 2007; Korkiakangas, Alahuhta, & Laitinen, 2009; Nam et al., 2011; Shultz, Sprague, Branen, & Lambeth, 2001; Tan et al., 2011). There is also the possibility that patients may not understand the importance of adherence resulting in poor adherence to advice given and delay in presentation to hospital (Ciechanowski, Katon, Russo, & Walker, 2001; Rafique & Shaikh, 2006; Tan et al., 2011).

However, additional factors begin to emerge in understanding these behaviours. The extracts above from Site 1 are dominated mainly by the doctor with very little input from the patients. The words chosen by the doctors, in some instances, carry strong connotations and meaning, in some cases derogatory. In addition, the extracts above indicate components of the patients' life-world and contextual environment (consults R3 and R5) that are not only overlooked by doctors, but deliberately ignored.

The approach at Site 2 seems to be a much more balanced interchange between doctor and patients. The incorporation of humour in some extracts is shared with patients and the resultant effect tends to lift the mood of the patients and doctor. There is also some recognition of the contextual challenges that patients may face in that returning for appointments is not always easy (consult E16) and migration between the two health systems (consult E4) is acknowledged. The attention to patients' immediate concerns also supports an empathetic attitude which begins to emerge.

The literature on adherence in diabetes presented in Chapter 2, yielded differing results with patient factors, clinician factors, disease and medication factors all being suggested as potential causative factors. By adopting a constructionist viewpoint in this study and placing the interpersonal interactions at the heart of the study, possible explanations for these behaviours begin to develop. Differing strategies of dealing with patients' adherence and care are evident.

5.4.5 Asking questions

It is suggested within the CCCG that patients be afforded the time to ask any remaining questions they may have of the doctor. Table 5.6 provides a summary of the extracts from the various consultations.

Table 5.6 Summary of questions posed by patients at both sites

Consult	
R2	Lines 112-113 Pt: The strips (.) they'll give me↑ (00:20)
R6	Line 295-298 Pt: So I'm going to have the bloods? Dr: Yes, the HbA1c. Pt: 22 years now I have this. Dr: Then you're still a young diabetic.
E5	Lines 31- 36 P: Where is it? DR: Room 12. P: Oh room 12. OK. May please have painkillers as well Doctor. I no longer receive them. DR: I have written here. P: Ok. Thank you.
E9	Lines 30-35 P: Emaphilisini? To the dispensary? DR: Yebo. P: Oh. DR: Thanks. Hambe kahle. Thanks. Go well. P: Lisele elakumaQwakazi? Does the card for Maqwakazi stay behind? DR: Yebo. Inyanga elizayo uzothathe la[16]. Yes. Next month you will get [your tablets] there.
E12	Lines 23-25 P: Thank you Doctor. My back is killing me Doctor. DR: We will inject. That is why we always inject it for everyone. P: Ok

[16] Correct grammar = inyanga ezayo nzowathatha kulapha

E15	Lines 91-94 P: Did the doctor write for me that I need Panado? They say the doctor must write that I need Panado? DR: They are troublesome when it comes to Panado here. They are troublesome. P: Yeah. They say the Doctor must tick; always tick.

In consult R2, the patient had been asked to test himself more regularly and he posed a question in line 112 relating to the strips he required in order to test his blood glucose levels. This query was followed by a 20 second silence whilst the doctor wrote notes and was not answered at all. The conversation continued after the silence with follow-up arrangements. It may seem as if the patient had forgotten about the question or lost interest in it being answered as he did not attempt to bring it up again.

Patient R6 had a query about his blood tests in line 295, which was answered. He then reflected to himself about how long he had been living with diabetes. He may have been referring to the time he had been coming to the hospital to see the doctors, or the knowledge he has gained in those years about his condition or lamenting the chronicity of his illness. Certainly the patient was making a comment that he had some experience and knowledge of the disease, possibly prompted by his perception that the doctor did not trust his view points and suggestions with regard to altering his medication. The doctor perceived this comment in a more light-hearted, humorous tone. The incongruous way in which the consultation ended mirrors the incongruity of the rest of the consultation as well.

No opportunity for patients to ask questions was offered in consults R1, R3 and R4 and neither did the patients themselves initiate any questions at this stage. Furthermore, the way in which patients' concerns were dealt with, tends to reflect an underlying attitude of disrespect for patients' views. At Site 2, questions from the patients were seldom actively solicited either but where patients did pose questions to the doctor, they were seen to be addressed.

Literature suggests that people with a lower level of education may be disinclined to ask questions of their doctor (Katz, Jacobson, Veledar, & Kripalani, 2007) yet data in this study show that this is not always the case. The following example from consult E9, lines 5-13, indicates a patient requesting some mouth ointment – an infection possibly related to her diabetes. The doctor warns the patient of the reality that the medication may not be available at the pharmacy and apologises for this, indicated both by his words and the downward inflection in tone in line 13.

Consult E9:

5	P:	>>Ngigcwalelwe ikhadi kodwa ngicela ungibhalele nezilonda. Ngiba nezilonda emlonyeni= [*My card is full but I need you to write something for mouth sores. I have sores in my mouth.*
6	Dr:	[Mama ngizo *Mama, I will...*
7	P:	=ngifuna ukuthola ishubhu lokugcoba.<< *I would like some ointment to apply.*
8	Dr:	Mama ngizobhala ishubhu but angazi ukuba kukhona. Last of last week si-odile

9		bathe awekho[17] ngizolibhala ishubhu=
		Mama, I will write the tune of ointment but I'm not sure if it's available. The week before last we ordered them and were told they were not available. I will write the tube.
10	P:	=Ubhale lapha ekhadini
		Will you write it here, on the card?
11	Dr:	Uma likhona
		If it is available.
12	P:	Bayoliphatha.
		Will they give it to me?
13	Dr:	Uzoliphatha uma alikho ngithi so:rry↓ (.) siyezwana↑. Ziphi izilonda, emlonyeni
14		noma olimini noma=
		If they have it, if not, I'm sorry. Do you understand? These sores – are they on your mouth or your tongue or...?

Towards the end of the morning, the doctor at Site 2 seems to display his fatigue in the way he responds to a request from the patient.

Consult E18:

24	P:	Ungiphe nokoku rabha Baba hhayi.
		Please also give me something to rub baba.
25	Dr:	Akuvumi.
		I do not want to.
26	P:	Akuvumi?
		You don't want to?
27	Dr:	Hhayi.
		No.
28	P:	Eyi [Laughs].
29	Dr:	[Laughs]
30	P:	Ngike ngirabhe nalapha eqolo ma...
		I also run my back when I feel that....
31	Dr:	Cha ayikho inkinga ngizoku-odela ma.
		No, there is no problem. I will order it for you, ma.

There may be an element of truth in his comment to this patient although both he and the patient know he cannot refuse to write a prescription for a patient, regardless of how tired he feels. The patient responds to the doctor by sharing in the laughter which indicates a shared understanding and acknowledgement of each other's context and situation contributing positively to the relationship between them.

Other examples of questions are given in Table 5.6 and indicate the doctor responding to patients' concerns. The majority of questions are centred on logistical queries or confirmation of further actions required but they represent a developing interpersonal relationship between doctor and patient

[17] See Table 5.3

where empathy and mutual respect are demonstrated and patients feel at liberty to ask such questions.

It has been suggested that active patient participation is most often patient-initiated rather than encouraged by the doctor and that complex social, personal and contextual factors may influence these behaviours (Street, Gordon, Ward, Krupat, & Kravitz, 2005). Some of these factors, such as education level and social status may well be at play in these consultations where patients seem disempowered to initiate questions or it may be a reflection of habitual behaviour governed by time constraints within the public health care setting. But what is certainly emerging is that patients may be able to rise out of the stereotypical features of who they are and relate to the doctor on more equal terms despite social and educational differences. The interactions highlighted in this section also allude to the impact of the attitude displayed by the doctor on the formation of the relationship.

5.4.6 Not all interruptions are created equal

The doctor-patient relationship is considered to be built by the doctor focussing attention on the patient limiting interruptions and disturbances on the consultation. Interruptions during the consultation may be necessary or avoidable and may be externally-initiated (by a person not part of the consultation) or may be as a result of participants in the consultation interrupting each other. A review of the literature on interruptions and distractions in consultations shows that these interruptions occur frequently in all health care settings but that very few studies actually assess the outcomes of these interruptions (Rivera-Rodriguez & Karsh, 2010). Furthermore, the majority of studies have tended to focus on these interruptions from the perspective of the doctor, and not on the impact on the patient or the interaction.

Interruptions of turns are noted in consult R6 where both doctor and patient interrupt each other (see lines 4-15). The rapid rate of speech in this dialogue as well as the bilateral interruptions may indicate that both doctor and patient are heavily invested in the conversation. The rate of speech slows down slightly after the doctor mentions she feels physically claustrophobic in line 36.

Consult R6:

4 Pt: Then it comes back to normal- before I used to take the insulin. <Ahh, ahh,ahh>, I don't
5 know if my body maybe its resisting the insulin or what because (.) before when I was taking
6 the insulin, after two hours I would be normal but now it goes up to <about> nine or eight right↑=
7 Dr: =But? Wait=
8 Pt: =Then it comes back. The 30. You take your insulin(.) before when I was taking the
9 insulin(.) after two hours (.) then (.) first thing it comes up (.) to eight (.) then (.) it comes up=
10 Dr: =and then there's a <surge>=
11 Pt: =>And then it comes down<. Is it possible to maybe go up two units↑?
12 Dr: ↑No - that's usually what we do↑. We tweak it as per your diary. That's really exactly
13 what your diary is >there for< (.) If you find you're getting a persistent surge then we pull it back by two units=
14 Pt: =I just want >to go up< by two units because I just=
15 Dr: =Which dose is it?
16 Pt: I'm taking (.) 62 and 36

…
36 Dr: =Sorry, I'm claustrophobic (.) do you mind sitting back a bit.

Additional evidence of lack of attention is noted in consult R4 where staff nurse B is repeating phrases to the patient in isiZulu whilst the doctor is talking to the patient's relative simultaneously in lines 182-209. This disconnection between the two conversations indicates a lack of attention on the doctor's behalf and it is also difficult for the patient to follow both conversations simultaneously.

External interruptions are also noted during consultations. Such interruptions are generally considered to be a barrier towards establishing a doctor-patient relationship and are discouraged (Silverman et al., 2005). Practical problems such as errors in writing prescriptions (Slight et al., 2013) and increased time to conduct the consultation (Bailey & Konstan, 2006; Ghazanfar, Honoré, Nielsen, Andersen, & Rasmussen, 2012) are described as well as a negative effect on patient satisfaction of the consultations (Bailey & Kodack, 2011; Mark, Gudith, & Klocke, 2008). Tables 5.7 and 5.8 illustrate the nature of interruptions that occurred during the consultations.

Table 5.7 Nature of interruptions to consultation occurring at Site 1

Consult	Nature of interruption	Time taken (min:sec)	Comments
R1	Doctor calls staff nurse B from across the room twice (lines 110, 156)		
R2	Nil		
R3	Nil		
R4	Nurse B asked to call patient's sister from outside to join the consultation (line 170)	00:30	Doctor talks to herself during this time and does not engage with the patient. (lines 171-172)
R5	Doctor talks to nurse B about the patient (line 38) whilst writing notes Doctor requests form from colleague and completes form (line 114-115) Doctor requests another form from same colleague and completes form (line 127-128)	01:22 01:30 01:00	
R6	Phone rings five times during the consultation. Answered by another colleague but telephone conversation obscures conversation between doctor & patient. (lines 77,80, 85, 87, 203)	No pauses	Patient's responses indicate he could hear the doctor during the phone calls but noise still disruptive.

Table 5.8 Nature of interruptions to consultation occurring at Site 2

Consult	Nature of interruption	Time taken	Comments
E1 – E3	No interruption		
E4	Nurse opens door then leaves immediately. (line 12-19)	No break	Neither doctor nor patient notices her. No disruption of the consultation.
E5 – E9	No interruption		
E10	Doctor answers phone (line 12)	00:50	Apologises to patient before and after answering. Consultation resumes where it left off.
E11	No interruption		
E12	Nurse from ward arrives to have death certificate signed by doctor. (line 16)	02:20	Consultation was almost complete when nurse arrived. Doctor repeats final instructions to the patient and greets patient goodbye.
E13 – E16	No interruption		
E17	Nurse brings in some files to place on doctor's desk (line 14)	No break	Doctor was writing patient's script and making notes, not engaging in conversation with the patient when nurse entered. Nurse leaves without saying anything to doctor or patient.
E18	Nurse Drops off more files on doctor's desk (line 7)	No break	Nurse does not interact with doctor or patient. No break in conversation.

Generally, consultations continued despite the interruptions described. Doctors and patients either ignored the interruption or adapted to the changed environment without commenting or showing any non-verbal signs of disapproval. Interruptions that occurred did not seem to have a great effect on the flow of the consultations. Ringing telephones, people walking in and out of the consultation room did not distract them from engaging with the doctor at all. Dearden, Smithers and Thapar (1996) found that although interruptions were common during consultations, patients generally considered the interruption to be important and reported through questionnaires that they did not feel it had a strong negative impact on the consultation. The methodology employed in Dearden's study, although useful in an initial pilot investigation, did have considerable reporting bias attached to it.

The nature of the public health care system in South Africa is that interruptions of consultations are common. It appears that patients may be accustomed to these behaviours yet the way in which the interruptions are contextualised in the consultations, may play a role in how they affect the outcome of the consultation.

5.4.7 "Silence is golden" – or is it?

There were numerous example of silences at both Sites 1 and 2. The longest of these silences occurred when doctors were writing notes or writing up a patient's prescription. For the majority of these consultations, patients sat patiently and waited for the doctor to complete his/her task and did not initiate any talk at this stage. A noticeable example occurs in consult R2 where major silences occurred in lines 105, 108, 111, 113, 116 and 119 whilst the doctor wrote notes and the patient waited for his question to be answered. These pauses accounted for just over two and a half minutes in the last section of the consultation.

Consult R2:

103 Dr: There's lots of fatty foods – fats there
104 Pt: Yes
105 (00:25)
106 Dr: So we keep it at 30 and 14
107 Pt: 30 and 14↑
108 (00:15)
109 Dr: >And the< metformin, two >in the morning<, two >in the evening<
110 Pt: Two↑ in the morning, two↑ in the evening
111 (00:30)
112 Pt: The strips (.) they'll give me↑
113 (00:20)
114 Dr: >I'll see you< in six months, not four
115 Pt: Six↑ months.
116 (00:30)
117 Dr: >How old< are you now?
118 Pt: 39
119 (00:35)
120 Dr: So >we'll see you< in six months' time.

Dr R1, in particular, took time in the beginning of the consultation to read through notes. DrR2 and DrE do not begin with reading the patient notes in this way but rather read the notes during the consultation. Table 5.9 indicates the length of time taken to read through patient notes and laboratory results prior to engaging with the patient. During this time, patients were noted to stare at a fixed point ahead or at their notes, not to adjust their body posture and at times, to display facial grimaces and gestures indicating their possible anxiety and interference with the process of the consultation. Just as the initial greetings may set the tone for the consultation, such extended periods of silence may also contribute to the anxiety and discomfort felt by patients.

Table 5.9 Length of silence at the beginning of consults at Site 1

Consult	**R1**	**R2**	**R3**
Time before first verbal interaction (min:sec)	00:43	00:50	00:16

In contrast to these periods of silence whilst writing notes, DrE is seen to engage with patient E1 in a seemingly inconsequential discussion about her son and what he is studying whilst he is writing notes at discussed in Section 5.4.1.6.

Silences were also noted when doctors had asked a question of the patient and were waiting for a reply. This was seen at Site 1 where patients did not give a verbal reply at all as part of their response. A particular example occurred in consult R3 where the patient responded only by non-verbal means from line 34 onwards which occurred after the mention of his father's passing.

Consult R3:

22 Dr: You're giving me such good sugar readings. <Are these true> or are you ly:ing?
23 Pt: °It's true (.) I am testing°
24 Dr: If you're ly:ing (.) you're not cheating me, you're cheating yourself↓. These readings
25 don't correspond with your >haemoglobin A1c< of 11.8 and your sugars today are 7.6
26 Pt: (00:01) °From December=°
27 Dr: =So from December you're just putting down figures?
28 Pt: I lost my dad↓-
29 Dr: >I'm sorry about that< but you're just putting down figures (.) right↑ Answer my question.
30 Pt: (nods)
31 Dr: >So you're cheating↑<
32 Pt: (nods)
33 Dr: I can >understand you lost< your dad, I(.) I (.) <I: can> >sympathise< but how old are you↑
34 Pt: 31

It would seem from these examples that patients were disempowered to initiate speaking turns whilst the doctor was busy thus resulting in extended periods of silence. Despite questions being posed to the doctor in the extract from consult R2, these are not answered and a period of silence is noted. The tendency towards further non-verbal responses may indicate that the periods of silence have broken the flow of the consultation and indeed, the relationship.

5.5 Concluding remarks

By focusing on the recorded consultations as the primary source of data, a number of findings emerged with highlighted the complexity of management in diabetes consultations. Extensive information is required about the personal and family history of the patient, adherence to medication and other related illnesses. Checklists itemising all these aspects of care are useful in reminding doctors but seem to have limited benefit in addressing the patients' needs. As they are naturally occurring interactions, the lack of a specific structure in the consultation is noted. Individual doctors tend to favour their own method of approaching the consultation and natural conversation does not tend to lend itself towards a structured approach. Moreover, this strict structure is seen to limit the personal relationship developing.

Although the content of the consultations is vital to managing diabetes, it is the manner in which this content is conveyed and the way that it differs within and across sites that is seen to be most important. These results begin to show evidence of how the content of the consultation may influence outcomes such as adherence and ability to manage diabetes. The manner in which words are spoken and the context in which they appear seems to have a profound influence on what is said and how it is interpreted. In addition, whilst some communication techniques suggested in guides such as the CCCG appear to contribute towards building the interpersonal relationship, others did not always have the desired effect. The overall duration of the consultations and frequency of interruptions did not have a direct effect on outcomes observed within the consultation.

Finally, they highlight the importance of attention to the socio-cultural context in diabetes management. The choice of language within the consultation is seen to be a means to establishing respect and trust within the relationship. Attention to cultural norms and behaviours is also noted to be of significance in building the relationship whereas inattention to the life-world context of patients has a destructive impact on the relationship. Other contextual factors such as past experiences also form the life-world for both patients and doctors.

The results presented in this chapter are obtained purely from the consultations recorded between doctors and patients at the two study sites. As discussed in Chapter 4, a strength of this study lies in the ability to confirm these findings with perspectives gained from the participants themselves. In the following chapter, the views of the doctors and patients will be presented to provide further insights into the findings derived from observing doctor-patient relationships in the consultations.

CHAPTER 6: RESULTS - INTERVIEWS WITH DOCTORS AND PATIENTS

6.1 Introduction

This chapter presents the results of the interviews with doctors and the focus group discussions (FGDs) that took place with patients who were involved in the study. The data presented in this chapter augment the findings and analysis of doctor-patient relationships as derived from consultations and reported in Chapter 5. Specific attention will be paid to how patients and doctors viewed adherence as a key driver in diabetes management. The interpersonal relationship will then be explored from the perspective of all participants and finally, the impact of this relationship on patients' abilities to manage their disease is discussed.

Individual participants within the FGDs are not identified but rather quotes are linked only to the site at which the FGD took place. Consensual or conflictual comments are indicated where relevant. FGD-1 refers to the discussion group at Site 1, whilst FGD-2 refers to the discussion group at Site 2. It should be noted that the participants in these FGDs were not the same patients as those who took part in the recording of the consultations. However, the doctors taking part in the interviews were the same doctors as in the consultations and are referred to as they were described in Table 4.1.

6.2 Doctors' Views

Adherence was not measured quantitatively by means of pill counts or a formal assessment of patients' blood results in order to infer the extent to which patients were adherent. Although many parameters have been suggested, no golden standard for measuring adherence exists (Vermeire, Hearnshaw, Van Royen & Denekens, 2001). The lack of consistent methodologies and theoretical frameworks used in evaluating adherence as also highlighted by van Dulmen et al. (2007), particularly in promoting good adherence. In this study, the issue of adherence is viewed using the framework of social constructionism, whereby realities are formed by the participants engaging with each other within a specific context. The question guide used in both sets of interviews was developed from the pilot study which sought to explore the issues patients found most relevant to the way in which they were able to manage their diabetes. Additional questions of the doctors arose after primary analysis of the data when it was found that certain findings regarding the nature of the doctor-patient relationship needed to be explored in more detail. The views of doctors and patients towards adherence are elicited from their respective interviews. As mentioned in Chapter 4, such an approach to this problem has not previously been adopted in the field of diabetes research.

6.2.1 Adherence

Adherence was a major concern for doctors at Site 1. They both expressed their frustrations with regard to poor adherence, missed doses, patients not knowing what medication they are taking, poor adherence to lifestyle modification and poor glucose control, as the following extracts suggest.

> The second problem is compliance, compliance with the medication they've been given. Despite the fact that we educate the patients in a special clinic as to how to take the insulin, how it will help, how to monitor, how to inject, the vast deficiencies regarding the education of the patients is a problem. But the biggest factor is when you insulinise a patient, and patients are taking some wrongly, they've missed a doses of insulin and that is why some patients take excessive insulin because they think, 'Okay, now my sugars are too high, let me take extra insulin.' without monitoring the sugars and they get hyperglycaemic as well. And hyperglycaemia is an important problem when we start patients on insulin. And it's hard to educate the patient how to watch out for hyperglycaemia, what action should be taken and unfortunately this is another big problem as well…. (DrR1)
>
> The other problem is patients don't learn the name of the drugs and the dosage of the drugs. Despite the fact that we tell the patients that they should know the name of the drug, they should know the dose of the drug and how they should take it. So when you talk to the person about what medication they are taking, they say, 'I take the white pill, I take the yellow pill and so on.' I think the bigger problem is compliance as well, if you have to go to the homes of some of these patients there are loads of medication lying in the house but the patients don't take them. Compliance is a big problem as well… (DrR1)
>
> Some patients will listen to advice but some patients will ignore advice because they feel they don't have to change their lifestyle. When I talk to the patient I'll look at the way they'll check the haemoglobin A1c, the sugar control and diet. And the other problem is with their diaries. We tell them how to monitor and invariably they do not bring a diary. I mean I shout, rant, rave every Monday morning as to why they didn't bring their diaries?" They will tell you 'I forgot'... (DrR1)
>
> Yeah there's a group that are just apathetic, their HbA1c's never come down. When you interview them you know they're not compliant, you know in some instances you might do pill counts, but most of our patients are insulin dependent. So you know, we check techniques, we check complications thereof…Some of them after 15 years don't seem to be aware that sugars are bad for them…I tell them that we're just going to do this because I'm not going get upset over them… (DrR2)

The issues referred to including complexity of the disease and treatment regimens, patient knowledge, difficulty in making lifestyle changes are all known barriers to adherence as identified in Section 2.4.1 (Fitzner et al., 2008; Nam et al., 2011; Tan et al., 2011; Wens, Vermeire, Van Royen, Sabbe, & Denekens, 2005). Both doctors at Site 1 also identified potential social problems amongst their patients that could possibly affect their adherence.

Well, we've asked the social workers to help us with regard to see whether they can improve social circumstances by monetary wise or food wise. (DrR1)

There are some groups that can afford no more than maybe a starch based meal, samp and pap perhaps and I don't think our diet sheets really cater for that. (DrR2)

DrR2 did identify a group of patients whom she felt have an external motivator that promoted their adherence. She referred to the patients with higher socio-economic status and younger patients in particular who she felt were more likely to adhere to their management plans. Bailey and Kodack (2011) discussed the influence of poor socio-economic conditions on patient adherence yielding similar findings to the sentiments expressed by DrR2. Travis (1997) also highlighted younger patients as having better adherence.

I think the more advanced patients are in terms of **psychosocial** standing, the more likely they are to be compliant. The more likely they are to follow through, the more likely they are to get better blood results…you can visibly see them improving. The weight falls, the HbA1c improves, the lifestyle improves they have a list of questions so they even spontaneously offer their diaries. They'll tell you about lapses - you can tell that they are in fact working towards a sort of end point…The younger group. They're usually teachers or young diabetics, you know, attempting to conceive or they've conceived and had a large baby and problems. They have a drive to want to be well somehow...and they do well, they do well. (DrR2)

DrE also identified socio-economic concerns as an important factor in achieving adherence. Although, he seemed to display a slightly different attitude towards meeting the patient on an individual level and attempting to do the best in "less-than-ideal" circumstances.

It's a bit frustrating to me sometimes because circumstances are less than ideal and there's nothing I can do about it. Patients live in appalling situations - a granny who can't see, living on her own who can't read and now she needs to take insulin. How are we going to get it to her? And sometimes we give up and say 'We'll just have to do the best we can with pills. You know this injection story is not going to work for you as much as you need it and I would like you to have it.' If there's no younger person in the house who's literate or no neighbour who can help, we'll just have do the best we can with diet and pills. (DrE)

These extracts give insight as to the attitudes of doctors towards patient adherence. Some relate utter frustration when patients are not adherent and seek to impose blame on someone or something. In contrast, another approach described by DrE seems more accepting of the contextual environment and the challenges faced by doctors and patients in achieving good adherence and alternative measures to support the patient are alluded to indicating a display of empathy for their situation.

The literature on adherence would tend to support the sentiments of the doctors at Site 1 that poor socio-economic conditions and poor knowledge of the patients would form barriers to adherence (Bailey & Kodack, 2011; Nam et al., 2011; Ciechanowski et al., 2011; Haque et al., 2005). However, the

sentiments expressed by DrE hints at the way in which these factors may be overcome by attending to the individual needs of patients and being attuned to their contextual environment.

6.2.2 Relationship with patients

Doctors spoke about how they perceived their abilities to provide a service to their patients. They focused mainly on the biomedical aspects of patient care. The doctors at Site 1 emphasised their ability to achieve good clinical outcomes as they described the clinical parameters they took into account when managing a patient.

> We've got the diabetic sheet which we've created. I think we manage to get the best out of patients simply because the tick sheet has got everything. The fundi of your eyes, your HbA1cs; so even for people that have just joined the department...they can cover all the major points that you should do... (DrR2)
>
> Patients would have a complete exam… if they're over-weight, they get some guidance as to how to go about exercising within their lifestyles…and also a diet that's catered to each individual lifestyle. I think they also need to be told what it could be if it were not controlled, the complications thereof and the options available at each particular point in terms of where they are. So I think they derive a lot from us. (DrR2)

Although the doctor at Site 2 also spoke about the importance of adherence, his emphasis seemed to be on meeting the patients' needs as a priority within the consultation as he referred to problems the patient might be having with their treatment or other related complaints.

> Most of the consultation focus is on compliance issues and problems that the patient might be having with their treatment because that is what I see as being the main purpose of a follow up visit, where the prescription is being renewed. But then I will also get patients coming in who have acute problems they want to discuss. And we'll just go through those, get the relevant history and discuss treatment options and take it from there. And that's basically how my consults work. I don't have enough time to physically examine my patients. All my decision making is based on history unless I deem it particularly important to examine the patient. (DrE)

Doctors also spoke about their attitudes towards the patients and the service they were able to deliver. Those at Site 1 expressed their frustration in dealing with patients and the difficulties they faced in achieving good adherence.

I shout, rant, rave every Monday morning. (DrR1)

I do this every week – it's exhausting. (DrR2)

I'm not going to spoil my morning by shouting and screaming, so I just let them slide because I know that you are not going to listen, so that's that!... I go through the same thing over and over I get frustrated. They get frustrated. (DrR2)

One of the main frustrations doctors highlighted was the problem of communication and the challenges they experienced communicating with patients who were not able to speak English. Doctors reported their isiZulu communication skills to be poor and their reliance on nursing staff to interpret in cross-lingual consultations.

The other problem is the nursing department - we hardly have nurses in the clinic and they are running up and down with results and they are not there to help us with regard to the problem with the patient we have and especially with black patients, interpretation, and with regard to any of those who speak Zulu. So we need to have nurses to interpret as well and to make sure the patient understands what we say. We have no idea how the nurse is translating the information that we give in Zulu to the patient as well. So we don't know what's happening. (DrR1)

I speak a bit of fragmented, broken, fractured Zulu. I think I'm able to understand what they're saying and they're able, to a certain extent, to understand me, provided I don't speak too high-faluted for them. (DrR2)

It would seem as if the issue of communication was not prioritised at Site 1. Communication seemed to be viewed as an "information-giving", unidirectional approach and the power differential between doctors and patients highlighted in DrR2's remark about using simple language.

On the other hand, DrE commented on his ability to engage with patients directly and the patients' resultant attitude towards him.

I've worked without a translator so fortunately I've had the opportunity to learn and use Zulu and that has proven very useful in the context of the clinic. I think that's the vital thing. It has meant that I have been able to work unhindered by an interpreter and communicate directly with the patient…I get told all the time that they are glad they can just tell me straight and that I'll understand what their concern is… Now that they know me, and they see me as their doctor… Never that I'm aware of do patient get offended because I can't speak Zulu 100% correctly. I think that people are just appreciative of the fact that one tries. Sometimes I think patients get offended if you speak to them in Zulu because they feel patronised. I don't get that a lot, but if I sense that there's that feeling, if a patient addresses me in English, I'll pursue the conversation in English. But it doesn't happen much at all. (DrE)

He did mention the difficulties at times in understanding patients but acknowledged that he was able to mitigate these frustrations.

It does have its frustrations. Sometimes I absolutely don't understand what the patient is saying and sometimes I can't communicate what I want to say to the patient. But in those odd occasions when I do face that sort of problem, I will ask one of the nurses working around to come and help clarify whatever misunderstandings there are. (DrE)

DrE also reflected on his use of humour during consultations and the way in which this attitude stemmed from a source of respect and love towards the patients.

I don't use humour as a tool - it's just fun to see people's response. I think it's also one way to get through the day. If you can't laugh and you've got a hundred patients waiting to see you over the course of the day, you're going to be absolutely frustrated and devastated by the end of the day. But if you are able to laugh with the patients and have a bit of fun with them along the way, it just makes the job more enjoyable as well. And the patients appreciate it, they generally laugh and I'm not aware of anyone ever taking offense even though I can be very personal sometimes. But it's done with love. (DrE)

The issue of honesty in the doctor-patient relationship was mentioned by all participants. This attitude is fundamental to establishing a sound therapeutic relationship and being able to negotiate management decisions. The following extract demonstrates the value of honesty in the doctor-patient relationship as perceived by one of the doctors.

I think honesty is critical when you're looking at someone with a long-term problem and compliance is such an issue. The fact that the person knows you and they know they can't bluff you. You know the first few times they will try and eventually they'll realise well you know, better just to say: "Actually I had jelly and custard at Christmas and I know that my sugars are a bit high now". And they'll come out with it. (DrE)

DrE then continued to explain how he managed the problem of obtaining the truth from his patients.

I'm not going to shout at you about it. I'll just raise my voice a little bit but I want to know exactly. Did you take your medicine? When did it run out? When did you stop using it? Why did you stop using it?" So that we can correct the problem and not just go on making the same mistake all the time. (DrE)

One of the doctors at Site 1 commented on his perception of the dishonesty displayed by patients which limited the ability to share decision-making.

I mean I've seen a patient and asked her to bring a diary, and she was religious to bring the diary and then you look at the blood profiles. She's doing five blood tests a day, every day, so we asked her how many strips had the pharmacy given her. They only give her fifty strips. Fifty strips every two months. So how did she manage to do all the blood sugars for the fact that the pharmacy gave her fifty strips every two months? So you catch them out. They haven't bought them; they can't afford it, so how do they do it? So they lie. This happens often. (DrR1)

In addition, doctors did mention that they were aware that some patients chose to agree with their doctor rather than give an honest reply that contradicts the thoughts or expressions of a person in a position of power.

> They say 'yes' and then when we talk to them they will tell you what's completely wrong…The other thing, they cheat! Because they want to make the doctor happy, they write down the blood sugars that will look nice on paper but you catch them out by doing the haemoglobin A1C because the haemoglobin is sky high but the sugars look so good in the diary. And we've seen this practice commonly among them. (DrR1)

The doctor at Site 2 also highlighted this phenomenon and expressed the difficulty in managing it.

> There are also a lot of people telling you what they think you want to hear because that's the respectful thing to do. Trying to convince people that that's not the answer, we want to know the truth because we are going to make decisions that influence your treatment – that is difficult… That was one of the cultural issues that I have had a problem with over the years. It's this issue of respect…I've had to say to patients over the years that as much as I appreciate them respecting me in this way, we simply cannot afford the time. 'Just come out, tell me what's wrong and we'll deal with it. I will not be offended, that's how we have to work.' And I think that message has got through. (DrE)

Ellis (2004) describes this phenomenon and explains the concept of *uyamehlisa* (lowering oneself). The belief is that by asking a person in a position of power to repeat what they have said indicates that the recipient was not listening and it is demeaning to ask the person of authority to repeat himself. He also relates this belief to the power imbalance between races during Apartheid that may still be evident.

Doctors also perceived their roles quite differently. Some concentrated on the biomedical aspects of diabetes management whilst others also described the importance of attending to patients' life-world concerns. The difference in the resultant attitudes on the doctors is also noted as their focus shifts. The importance of characteristics of relationship-building are seen to be associated with a more positive attitude.

It is in this section that the greatest divergence between sites is noted and where attitudes suggested within the consultations are confirmed. Doctors at Site 1 concentrate on the biomedical focus of their work and the resultant emotions they feel when targets are not achieved. Additional limitations of language barriers are also expressed. The feelings of frustration, anger and despair suggested in the consultations particularly evident in the process skills observed, are confirmed. In contrast, DrE mentions attitudes of empathy, respect, honesty and the manner in which he is able to interact with patients through the use of a common language. Again, these attitudes have been suggested in the consultations but are here reflected by the doctor himself. Although similar socio-economic circumstances do also tend to cause frustration and despair at Site 2, the over-riding attitude is that of patient care.

6.2.3 Relationship with the Health Care System

One of the main challenges of the health care system as identified by the doctors at Site 1, was the lack of privacy in the shared consultation room. One doctor expressed his sentiments in the futility of his ability to change the status quo.

> I mean, you will note in the clinic that you see, it is such a small room, I can't even tell you what the measurement of the room is. There are seven doctors, seven patients. Patients are sitting next to each other and there's no privacy and you cannot discuss a problem the patients has at length because everybody is listening to each other. Soon as the patient talks a little louder everybody's ears are cocked up and they're listening to the patient and what he is saying. And that's the biggest factor despite the fact that if we tell management this is ridiculous, we're running a special clinic for a chronic disease and we have no privacy. This has been going on for more than thirty years and they haven't done anything about it. (DrR1)
>
> There are some patients who've got ED[18] etc, they don't feel at ease to discuss it so unless you bring it up in a very subtle way they don't feel comfortable enough to mention it. (DrR2)

These frustrations may well be an added source of frustration for the doctors and contribute further to the attitudes displayed towards patients. A summary of the major themes relating to doctors' views is presented in the table below.

Table 6.1 Thematic summary of doctors' views as obtained from in-depth interviews

	Site 1	**Site 2**
Adherence	Identified as major problem – missed doses, not testing, patient apathy, social problems Causes frustration, despair and anger for doctors	Problem acknowledged but contextual limitations noted
Relationship with patients	Doctors meet checklist relating to biomedical aspects of diabetes management Examination performed Adherence attended to	Consultation adapted to patient needs, contextual environment Importance of learning patients' language Importance of developing trust and honesty, empathy and respect

[18] ED - This is an abbreviation for the term "erectile dysfunction" otherwise known as impotence. Diabetes can be a common cause of this condition due to vascular complications associated with the disease. Due to the nature of the disease, privacy and a strong rapport between doctor and patient would be required in order to adequately deal with the problem.

Problems identified	Adherence Inability to speak isiZulu Frustration with patients Patients attitudes towards managing their disease Lack of nurses Lack of privacy	Resource limitations

These results begin to confirm the findings of the consultations where behaviours within the consultations were considered to be linked to underlying attitudes and perceptions of the doctors. It is these attitudes that form the basis for the building of interpersonal relationships. In addition, it becomes evident that perceptions can be constructed differently even within similar socio-cultural settings.

6.3 Patients' Views

The purpose of this data is to add a third dimension to the interpretation of the influence of interpersonal relationships in diabetes management. As mentioned previously, patients were interviewed as part of FGDs with the purpose of stimulating discussion around the topics. The pilot study guided the direction and exploration of these themes.

6.3.1 Adherence

Patients at Site 1 did not comment on their adherence much other than to mention how doctors were concerned with poor adherence and admonished them during consultations.

> And some doctors scream, scream, scream and shout that makes your sugar and your pressure more high… (FGD-1)
>
> But sometimes I believe that it is a good thing because when you feel insulted by someone else, it makes you want to control yourself much better. (FGD-1)

In contrast, patients at Site 2 described how they viewed their adherence and the supportive role they perceived their doctor to have in dealing with this problem.

> They [the doctors] encourage me to be aware of my situation but be optimistic that I can live for many years if I can adhere to their advice and not do what I am told not to do (FGD-2)
>
> I asked myself 'For how long will I be taking pills every day?' But then again I told myself that life goes on. I will raise my children. Let me take these pills so that I can prolong my life and look after the children. (FGD-2)

If I have been warned against doing something, I do not do it because I am trying to prolong my life. (FGD-2)

Yes, you have to know who the sick one is. I am the sick one. The doctor has told me that eating this is the cause of the illness that I have. So it means I have to quit it because I am the one that is sick. (FGD-2)

Despite the emphasis doctors placed on this issue and the frustrations they reported to feel with regard to patients who were not adherent, patients did not seem to share this as a priority. Particularly at Site 1, patients seemed to feel disempowered and unsupported in their ability to remain adherent. Further evidence on how patients perceived doctors' attitudes towards them is discussed in Section 6.3.2.2 below.

As noted from the response of doctors above, the response of patients from the different sites regarding their adherence is marked. Those at Site 1 indicate they are aware they do not please their doctors suggesting it is not merely a lack of knowledge that provides a barrier towards adherence. Patients at Site 2, despite poor socio-economic conditions and poor health literacy demonstrate a remarkable understanding of their disease and a willingness and motivation to improve their condition.

6.3.2 Relationship with health care providers

As this study focuses on the role of the interpersonal relationship, patients were asked about how they perceived their health care provider. Their responses concentrated both on the knowledge and skills of their doctors, as well as the attitude of the doctor. In addition, patients viewed doctors as part of the greater health care system in general and thus expressed their feelings about their care within the general health care system.

6.3.2.1 Knowledge and Skills of Doctors

Knowledge and experience of the doctor have been reported as important factors in promoting patient adherence (Ciechanowski et al., 2001; Ross, Tildesley, & Ashkenas, 2011; Tan et al., 2011). Although all doctors in this study had more than ten years' experience, not all were specialists in the field. Patients reported no concerns about the knowledge and skills demonstrated by their doctors.

They are full of knowledge. (FGD-1)

We would not be here if they were not knowledgeable about it [diabetes]. (FGD-2)

I think the nurses are knowledgeable because they are able to explain to me how the diabetes is progressing and tell me that I need to see a doctor. (FGD-2)

Patients also agreed that doctors shared their knowledge and that they had adequate information and education about diabetes.

> They advise us on healthy eating habit, that actually we can control our diabetes. (FGD-1)
>
> We have diaries, so we record our glucose levels. So that helps the doctors to understand what you are going through... So on the basis of that they are able to give us feedback that our insulin is being controlled or it is not being controlled. They will ask us "What are you eating?"; "You need to change that" and "You need to exercise". (FGD-1)
>
> Most of the time they tell us things because there are many of us. It is not easy to talk to people one by one. However, because there are many of us, they tell us. "Do not eat this and that and that. Do not do this and that since you have this disease". Most of the time they tell us things that may help us. (FGD-2)

Patients at both sites agree that their doctors have good knowledge and skills in managing diabetes and that they do share this information with patients. Even though they acknowledge resource limitations, they seem satisfied with the knowledge and information they have.

6.3.2.2 Attitudes of doctors

Another important aspect of the relationship between patients and doctors was the attitudes displayed by the doctors. Patients discussed the value of the doctor engaging in small talk about their personal and family lives.

> I used to work for his friend. Since I stopped working he asks if I ever see my former employer. I tell him that I have been to visit my former employer once…He also talks to us about other things that make you realise that even though you are ill, you are still a person and you are alive. (FGD-2)
>
> Our doctor, DrE, takes good care of us. He is always happy to see us and he jokes with us. We are like children to him. (FGD-2)
>
> And they [the staff] comfort you and tell you that just because you have diabetes does not mean your life is over. We are like one big family. (FGD-2)

Patients at Site 2 also commented on the way in which they felt the doctor attended to their individual needs at the same time as making them feel welcome and at ease.

> He asks how my knees are. I tell him that they are painful and he would say "it is because of aging". He tells what not to eat. By the time he starts examining me he has made me feel welcome by joking. He has time to joke. (FGD-2)

In addition, some reflected on the way they were addressed in accordance with their own language and cultural preferences and the resultant effect this seemed to have for them.

> For me he jokes with my surname and says 'Zwide'. Nxumalo is Zwide[19]. He asks 'How are you Zwide?' you see things like that. He respects us. (FGD-2)

Patients at Site 2 agreed that they were able to be open and honest with their doctor.

> You can also refuse to be injected of you feel that it does not treat you well. (FGD-2)
>
> You can tell the doctor that you prefer to continue taking pills instead because the injection gives you problems here and here and here. (FGD-2)
>
> I must be able to be open to the doctor and the doctor must also be open to me. (FGD-2)

With regard to the sharing of information about medication, patients specifically mentioned the issue of traditional medication use and their ability to discuss such practices with their doctor. This is in contrast to the findings by Haque et al. (2005) with regard to the barrier posed by traditional medication use in adherence.

> If the doctor asks me if I am taking traditional medicine I will be open and tell him, he will not arrest me. I will tell him because we would be having a discussion. (FGD-2)

Patients at Site 1 reflected slightly differently on their experiences with regard to honesty with their doctors.

> There are certain doctors that I do like, they are very open… but some of them…I do not even like to tell you… We cannot be very open. (FGD-1)

They attributed this inability to be open and honest with their doctor as due to a lack of communication and disrespectful attitude displayed by doctors in the way that they interacted with the patients.

> I think there is a lack of communication. (FGD-1)
>
> And you do not see the same doctor all the time (FGD-1)

[19] Here the patient refers to the clan praise names (*isithakazelo)* associated with various surnames in African culture. A good cultural knowledge would be required to be aware of these names and their associations. These names indicate allegiance to the family and often reflect the names of previous, famous clan members.

Some doctors scream and scream and scream (FGD-1)

Recent literature looking at patient experiences within the South African health care system has revealed similar findings with regards to the attitudes shown by doctors and the importance this has on forming the views of patients and in turn, their ability to self-manage their diabetes (Murphy et al., 2015). In addition, Mshunqane, Stewart and Rothberg (2012) showed the importance of patient education and support in motivating behaviour change. Although a relatively small study, it highlighted the importance for a patient-centred approach if behaviour changes are sought.

Again, a vast difference is noted in the responses from the different sites. Communication is highlighted as a particular problem at Site 1. In contrast, patients at Site 2 allude to attitudes of empathy, trust and respect including respect for their culture and social status. It is these attitudes that are suggested during the consultations, confirmed by the doctors and now also reported as observed by the patients themselves.

6.3.3 Relationship with the health care system

The nature of the South African health care system as described in Section 1.4.1 tends to pose a barrier towards adherence as discussed by other authors in previous studies (Ebrahim et al., 2014; Goudge et al., 2009; Haque et al., 2005). The extended consulting hours of the clinic at Site 1 allowed for patients who were working or attending school to be consulted earlier in the day. The clinic seemed well-resourced with adequate staff, who was able to attend to patients and allow them to flow through the clinic quite quickly. Consultation times were, on average, just over 16 minutes. Patients expressed their satisfaction with regard to their waiting time at Site 1.

Most of the time there are always a lot of doctors, about five or six of them. (FGD-1)

If we are at the clinic it is very fast compared to any other clinic. (FGD-1)

The consultation room at Site 1 did not display the names of the consulting doctors and patients were assigned to the next available doctor. Patients were consulted in a communal area with up to seven doctor-patient pairs being consulted at any one time. A small, private area for examination was available in the shared consultation area but was not utilised during the consultations observed. Patients reflected on their experiences of the clinic.

It is a nice place but considering that everyone is so close together, I think lack of privacy is a problem because you can hear what the doctor is saying. Sometimes it is personal and the doctor speaks loud and I feel a bit intimidated. (FGD-1)

They can hear your whole story, your whole conversation, sometimes if you need to discuss something with the doctor, you will think twice but yet the doctor is there to help you. (FGD-2)

This lack of privacy prevents us from being more open. (FGD-1)

In general, patients at Site 1 seemed to have slightly guarded views of the clinic.

> I can say it's satisfactory. (FGD-1)
>
> It should be more like a happier atmosphere. (FGD-1)
>
> The clinic is only quick so we do not really get to know each other. (FGD-1)

At Site 2, the flow of the clinic was complex, although new patients were seen to ask direction from regular patients and nursing staff who directed them accordingly. Patients waited for some time to see the doctor and the average consultation length was just less than three and half minutes. Despite this, patients reported to be satisfied with the waiting time and seemed positive about the service they received.

> But if they [nurse, doctors and pharmacists] are all here, services are provided quickly and we go home early. (FGD-2)
>
> We get our medication. We have never been told that medication has run out. Private doctors' pills run out quickly. (FGD-2)

The doctor's consulting room was labelled with his name displayed on the door. Patients were seen individually in the doctor's consultation room however, the room was accessible to other staff via a communal back corridor. In general, patients seemed to have more positive sentiments of their experiences. Once again, attitudes of care and positive interpersonal relationships were emphasised as contributing to these feelings.

> The hospital is much better [than private doctors] – it cares for us. (FGD-2)
>
> I think it [the harmonious relationship between patients] is because of the way that they treat us at the hospital. We get good care. (FGD-2)

The convening of a FGD prompted a discussion about forming support groups within the hospital. Although many patients expressed the desire to be part of such support groups, no patient reported being part of such a group.

> I think they need to have, you know that support process, yeah. (FGD-1)
>
> No we have never had such an opportunity [to engage in support groups]. I do not know maybe one day we will. (FGD-2)

Although patients reported they were satisfied with the information they had received from their doctors, as highlighted in Section 6.3.2.1, the desire to have patient support groups does suggest that although basic patient education is adequate, that the emotional support and confidence required to manage diabetes was lacking. The confidence and capability to make lifestyle changes were important features highlighted by Murphy et al. (2015) required to improve patient self-management of diabetes. The strong desire for psychosocial support was noted by Heisler et al. (2009) in a study of African American and Latino-origin patients who were reported to join support groups out of frustration with their HCPs..

Patients seemed to be accustomed to the long waiting time, shorter consultations and relative lack of staff at Site 2. However, patients at Site 1 did mention privacy to be a problem and a barrier in the way in which they were able to relate to their doctor. All patients expressed the desire for support groups to be made available to them but understood this would probably not become a reality for them. Patients at Site 2 were generally happy with the way in which they were treated at the clinic whilst those at Site 1 had mixed opinions.

6.3.4 Impact of interpersonal relationships on chronic disease

Finally, in analysing the role of the interpersonal relationship on the management of a chronic disease, the impact on the patients' life-worlds is examined. These aspects of the patients' perspective are acknowledged to be important both in guiding future management decisions and in empowering the patient to self-manage their disease.

Some patients reported how their experience with the doctor in managing their diabetes had alleviated the fears they had with regard to their disease and its associated complications.

> As soon as I started getting injections for diabetes I felt they were treating me well. He explained to me about my diabetes and stopped me from being afraid. (FGD-2)

One patient in particular gave a very descriptive story of how her fears of a sexually transmitted disease had been relieved by the way in which the doctor had understood her problem and addressed it. She uses a metaphoric story to explain her experience.

> For me, firstly, my spit dried up, the spit in my mouth dried up. Secondly, while I was still pre-occupied with why my spit was drying up, the next problem began here (points to groin area). The second day it was itchy but a painful kind of itchiness. I then went to the doctor at [town name] and told the nurse while she was taking down my information that I am sick and I don't know why it is so itchy down here (points to groin area). It was a kind of itchiness that felt as though I should scratch it but it became painful and had a burning sensation. The nurse said that maybe it's diabetes. I said I had checked my sugar levels at this clinic and they said I am not diabetic. She said I must go and take a urine sample. So I went to the doctor's consultation room and I told the doctor the very same story that it is itchy in "Kwamashu". The trains are not moving! The railway tracks are broken. And the doctor said I should have my sugar levels checked. My sugar levels were twenty-two point something! That's when I started taking treatment and I was okay with it. I was okay with it but was concerned that I had diabetes. (FGD-2)

Sexual practices in African culture are generally referred to using euphemisms and metaphors in order to denote respect (Turner et al., 2015). Words such as "in front" *(phambili*) or "down there" (*ngenzantsi*) would commonly be used to refer to genitalia (Ellis 2004). This metaphoric story indicates the respect shown by the patient in relating her story but also conveys the level of cultural understanding required on the behalf of the doctor in order to interpret the story correctly.

She continued to describe the impact that the doctor understanding her concerns had on her ability to cope with her disease.

> I used to see older people who are much bigger than me, and now I am also a diabetic? Then the doctor asked what my problem was. I told him that the father of my children died in 2008. In February 2009 my daughter died, and in October 2009 my other daughter died. I was in shock because I had lost three people at the same time. Then he said that is what triggered the diabetes. That is when I started taking treatment. But I was relieved that he had helped me. (FGD-2)

Patients at Site 1 found diabetes to be quite "overwhelming" and all patients in the FGD mentioned how their disease impacted negatively on stress in their life and compounded their fears. They were aware of the multiple complications associated with diabetes and the need to maintain good control but remained concerned about their lack of ability to do this.

Patients in the FGD described how their concerns and fears were not addressed and the negative impact this had on their ability to manage their disease.

> I think diabetes affects your entire body and you are susceptible to so many things - heart disease, stroke, blindness - it is too much. It is overwhelming. (FGD-1)

Patients discussed the effect of diabetes on their diet and lifestyle. Once again, those at Site 1 seemed to concentrate on the stress of having to have different food from their families and the added financial impact of preparing separate food, buying more expensive food and the additional equipment required to monitor their disease. They also mentioned difficulty in managing their diabetes within their work environments.

One of the patients at Site 1 described the general sentiment of the impact that diabetes has on her life.

> I believe that, I think we need to have less stress, you know. We need to control our stress because I believe, really believe that that is what rates highest in diabetes. (FGD-1)

Financial concerns were an important consideration for patients, particularly at Site 1 – one patient's sentiments are highlighted.

You see all these things, even the machines I had to purchase it for R450 like 9 years ago and they said I must have it. I was straight out of university, last year of university. I had a huge debacle on that and that thing left me with a deep depression and it was almost exams time, final exams, so it had a very big impact on me. So if you do not have the money, where do you buy the machine? (FGD-1)

Dietary and lifestyle adaptations posed a significant problem to patients both financially and in terms of fitting in with other family demands.

Sometimes some of us do not have that control, that lifestyle the doctor says you must have. Some people cannot afford that control. (FGD-1)

It gets too expensive when you have to buy for yourself and separate for your family. (FGD-1)

You cannot consume too much food that will give you energy because you are not allowed to eat that food. (FGD-1)

They tell us that must eat little meals, see but sometimes if you are working it is very difficult. When you are working, you cannot just walk out and say I am taking a break to go and eat. (FGD-1)

At work it's difficult just to snack anytime and sometimes that is how you pick up the sugar levels. (FGD-1)

Similar difficulties with financial constraints, food insecurity, conflict with family meal arrangements and access to appropriate foods were expressed by patients to be barriers towards adherence by Muchiri, Gericke and Rheeder (2012). Despite poor socio-economic backgrounds and similar contextual backgrounds, patients at Site 2 did not concentrate on these difficulties and some reported to have adopted a more positive attitude towards their diet and lifestyle. Family members were reported to be involved in their care and they did not express major difficulties with their work environments or financial burdens. Patients felt that they were able to cope with the dietary adaptations that were recommended to them and the support they received from family.

If I crave tea on that day, it is my grandchild that tastes it first and says, 'Gogo it has too much sugar.' I fetch hot water and pour it in. She says, 'It has too much sugar, Gogo'. I am trying to say that we are well cared for. (FGD-2)

There is evidence from the FGDs that some patients had managed to adapt their lifestyles and dietary habits according to what their doctor had recommended.

When they cook their food, they use cooking oil; and then they cook in a different way for me. However, now they only cook food that is suitable for me and we all eat it. (FGD-2)

Yes we all just eat the same food, like all of us have diabetes. (FGD-2)

Patients at Site 1 acknowledge that they are aware their doctors are not satisfied with their adherence and diabetes management whereas those at Site 2 have a much more positive approach. Both groups of patients report they have adequate knowledge and information on their disease. However, it is the display of attitudes from the doctors that is most noticeable and ultimately is seen to lead to the differences in the way challenges within the healthcare system are perceived as well as how patients are able to manage their disease.

Table 6.2 Thematic summary of patients' views as obtained from FGDs

	Site 1	**Site 2**
Adherence	Doctors not happy with their adherence	Feel supported, motivated to adhere to management plan
Relationship with doctors	Knowledge of doctors is good Doctors display poor attitudes	Knowledge good Attitude is one of empathy, trust and respect Socio-cultural context acknowledged
Health care system	Patients satisfied with waiting time Patients satisfied with 6-7 doctors in clinic Consult time (ave >16 mins) not commented upon Lack of privacy perceived as a problem Lack of support groups	Longer waiting time not perceived as a problem Availability of only 1 doctor not perceived as a problem Consult time (ave <3.5 mins) not perceived as a problem Privacy not commented upon Lack of support groups
Impact on disease	Feel overwhelmed	Feel motivated, empowered

Finally, it is in triangulating all the data that the links suggested in previous sections are able to be confirmed. Patients indicate strongly how interpersonal relationships with their doctor affect their perceptions of their disease, their motivations and finally their behaviours in managing the condition.

6.4 Concluding remarks

Previous literature has highlighted the importance of adherence in chronic disease management and alluded to the role of the doctor-patient relationship in achieving management goals. The design of this study was structured in a way so that the observational findings from natural consultations could be compared with the perceptions of the participants themselves.

Data from the consultations suggested that checklists of biomedical aspects of diabetes care needing attention were not sufficient on their own. They also highlighted the need to attend to needs of the patient and conduct the consultation in a patient-centred manner. Although the content of information delivered was important in ensuring all aspects of diabetes management are covered, consultation data suggest that the process of delivering this information was just as important. Finally various aspects of how communication occurred were considered to be influenced by socio-cultural contexts.

The data from interviews and FGDs has proved highly valuable in confirming and strengthening the findings from the naturally observed consultations. All doctors acknowledged health system challenges and the socio-economic context of their patients in playing a significant role in their diabetes management. However, it was the manner in which these challenges were addressed that differed. When attitudes of respect, empathy and trust were prioritised, relationships were strengthened.

Patients themselves confirmed these findings and effect of strong interpersonal relationships built on positive attitudes that were able to mould their perceptions and empower them to take control of their diabetes. On the other hand, those patients who did not have a strong interpersonal relationship with their doctor, were victims of disrespect and whose socio-cultural context was ignored, felt overwhelmed by their condition and unable to manage their diabetes effectively. The following chapter will draw together the results from all sources and take forward the arguments that have emerged from the data in Chapters 5 and 6.

PART 4: USING FINDINGS AS THEY ARE RELEVANT TO THE THERAPEUTIC CONSULTATION IN PRACTICE AND MEDICAL EDUCATION

CHAPTER 7: DISCUSSION

7.1 Introduction

As detailed in Chapter 3, in addition to the value of personal characteristics and attitudes, the strength of the relationship demonstrated by sound communication techniques has been suggested in a number of studies to be beneficial in terms of patient outcomes (Bolanos & Sarria-Santamera, 2003; Kokanovic & Manderson, 2007; Lerman et al., 2004; Matthews, Peden, & Rowles, 2009; Ross et al., 2011; Tan et al., 2011). Some studies have even linked improved communication and stronger therapeutic relationships with quantitative measures of adherence and health outcomes such as glycosylated haemoglobin (HbA1c) levels (Ciechanowski et al., 2001). But by creating meaning out of a shared reality, this study shows how communication is a vital component of social interactions.

This chapter highlights the results of the previous chapters including evidence from the observed consultations as well as the interviews with participants and relates them to the aims of the study. By using a constructionist approach to exploring communication within the doctor-patient relationship, contextual and social dynamics emerge which bear influence on disease management. Behaviours as well as spoken communication are made real during the consultation and this reality shapes interpretation and future behaviours.

One of the highlights of the results in the previous chapters, is that apart from the observed communication techniques and content of the consultation, the process of how this communication is effected and underlying attitudes are brought to the fore.

This chapter develops Candlin and Roger's model of communication in professional relationships in health care (see Figure 3.1) and makes explicit the mechanism by which these contextual and behavioural factors interact. It also addresses the various sub-objectives of this study in explaining how social constructionist theory can be applied to not only clinical practice but also communication research and medical education as informed by the data in this study.

7.2 Towards a model of communication in context

Yach (1992) proposed that there is a need to look at alternative theoretical frameworks within developing countries where social and community-wide attitudes may outweigh those of the individual. Social constructionism allows for attitudes and perceptions based on social phenomena to be developed and explored in detail and for relationships to be viewed from this angle. Patients who felt that their needs were met and their concerns acknowledged were seen to enjoy a mutually beneficial relationship with their doctor whilst those whose personal lives were ignored, their behaviours condemned and their contributions ridiculed, struggled to gain a positive view towards their disease management.

Doctors too, had different perceptions of their roles and responsibilities towards the patients which tended to determine their behaviours. Doctors at Site 1 mentioned how they referred patients to social workers when they had financial problems, dieticians were available to discuss the diet sheets and nurses were able to assist with interpreting when necessary as well as other responsibilities including patient education, clinic administration and logistics. The doctors seemed to separate themselves from these roles and not to take responsibility for these aspects of patient care. A sense of apathy seemed to have developed in the way DrR1 described the lack of space in the clinic that had been a problem for almost 30 years without being resolved. At Site 2, the dynamic between doctor and patients was different. The patients referred to themselves as his “children” and said that they felt well cared for. The doctor also equated himself with the patients and community saying he felt “one of them”. These are the perceptions that underlie the interactions that are seen to occur and which are powerful in interpreting the findings. Evidence from the consultations reveals how the cultural divide is able to be breached at Site 2 and that patients are able to maintain eye contact and engage in decision making with the doctor despite cultural norms that would have suggested otherwise. In a similar manner, the doctor at Site 2 chooses to address patients in their home language and in doing so is able to demonstrate respect, use culturally appropriate greetings and convey meaning by use of hand signals and symbols without being disrespectful. There is even evidence of code-switching at times indicating a mutual respect and aim to achieve concordance in understanding. This attention to cultural and language preferences and respectful attitude seem to over-ride the shorter consultations, longer waiting time and lack of a full multidisciplinary team available experienced by the patients. On the other hand, the consultations at Site 1 show evidence of discord between patients and doctors even within similar cultural groups. The attention to a check-list of adherence behaviours by the doctors does not equate with the life-world of the patients and thus all participants describe dissatisfaction and frustration as a result.

7.2.1 Attitudes developing with the doctor-patient relationship

The main aim of this study was to explore communication within the doctor-patient relationship as depicted within follow-up diabetes consultations. The literature in diabetes adherence discussed in Chapter 2 indicated numerous studies where the importance of this relationship had been alluded to but not explicitly studied. Other chronic diseases, particularly studies in the field of HIV, have been able to show the impact that these relationships have within a similar socio-cultural environment.

The main findings of this study lead to a discussion of the core attitudes that underlie the interactions that are observed. Recent models of the therapeutic relationship have considered the importance of the need for patient-centered care in achieving concordance and positive health outcomes (Epstein & Street, 2007; King & Hoppe, 2013). The personal characteristics and attitudes of a clinician have also been shown to have a positive impact on chronic disease management. Doctor's friendliness, approachability and openness have been suggested to enhance patient compliance (Vermeire et al., 2001). Attitudes displayed by the clinician have also been noted to be important in how patients perceive the experience of the consultation. These attitudes were highlighted by Nam et al. (2011) and capture the essence of the findings in this study as well.

The theoretical perspective of this study has guided the analysis of the results in seeking to understand the relationship from a constructionist point of view. These attitudes of support, attentiveness, respect, empathy and partnership evident in the results and the way in which they influence behaviours are discussed below.

7.2.1.1 Empathy

Empathy is defined as the ability to recognise emotions experienced by another person and an appreciation of the person's emotions (Stepien & Baernstein, 2006). It implies a desire to help the other and understand the other's thoughts and feelings. The display of empathy has been suggested to involve linguistic techniques, facial expressions and personal characteristics and may be expressed by imitating the tone of voice, feelings and expressions of the other person. Empathy differs from sympathy which implies that there is an element of pity and compassion for the person who is suffering.

Stepien and Baernstein (2006) showed how a display of empathy can contribute towards patient satisfaction by the way in which it is able to decrease patient anxiety and distress and enhance patient enablement. Candlin and Roger (2013) described the importance of empathy in being able to identify critical moments and avert the focus of the consultation. However, missing these moments can close off opportunities, block any further emotional investment on the patient's behalf and create a complete break-down in communication. Murphy et al. (2015) emphasised the value of empathy in the crucial role of relating to patients in order that they may be able to self-manage their illness. Thus, empathy plays a vital role in conducting a patient-centred consultation but very few studies have looked at its effect in clinical practice. A review article by Derksen, Bensing and Lagro-Janssen (2013) found only seven such studies to meet inclusion criteria for the review, however, these studies did show a positive effect of empathy on practice.

In managing chronic diseases such as diabetes, doctor and patient should expect a series of successes and failures. The doctor should be able to understand how the patient experiences his/her illness in order to manage these milestones. No specific mention is made by any of the patients at either site with regard to empathy shown towards them. However, some evidence of empathy may be inferred from discussions that occurred during consultations, non-verbal behaviours, appropriate silences and the way in which doctors responded to the patients' needs. A display of empathy requires the appropriate words backed-up by appropriate non-verbal behaviour. The words "I'm sorry" as spoken by the doctor in consult R3, line 26, were not accompanied by the appropriate non-verbal cues and the immediate continuation of the sentence accusing the patient of cheating and demanding an

explanation were not congruent with the attitude expected. From this point on, the patient's replies became much softer spoken, shorter and more concise.

A similar loss of a parent as a significant life event was offered by patient R5 as a concern in line 98. No words of consolation or empathy were given at all in this consultation as the doctor continued asking technical questions about the patient's complaint. The discussion leading up to this point (lines 85-97) had displayed some evidence of an open discussion between doctor and patient with the patient describing her symptoms and raising concerns. From line 100 onwards, the patient reverted back to monosyllabic responses indicating this missed opportunity to display empathy.

In consult R6, the patient's difficulty in attending regular follow-ups was not acknowledged by the doctor neither was he given the opportunity to go home and fetch his diabetic diary which he had forgotten despite his asking numerous times. As a result of these behaviours, a lack of empathy towards the patient for his position as a business owner was displayed.

In consult E1, the doctor listened to the patient's concerns about her advancing age and addressed her needs with regard to pain medication required. In addition, the doctor offered light-hearted remarks about the severity of the disease which resulted in the patient and doctor sharing a laugh. In consult E4, the doctor provided a walking stick for the patient at the end of the consult without the patient specifically requesting it. The doctor expressed his understanding of her problem and displayed empathy in the way in which he responded to her concerns. In consult E9, the doctor supported the patient to be more assertive in her request for the medication she required. The manner in which he expressed his dismay that she did not always receive such medication and advised her to challenge the pharmacy should she not receive it, contributed to the way in which he was able to demonstrate empathy towards her.

The story about the trains in KwaMashu not running as a metaphorical description of lack of sexual activity related by a patient in FGD-2 demonstrates how empathy is constructed during the interaction and how individual understandings and perceptions of reality may be shaped and moulded. The geographical location to which the patient referred is south of the patient's home and thus is used to refer to her genital area ("down there"). The metaphor was used to express private concerns without explicitly having to go into the detail thereof. It was a way of expressing her fears and anxieties without the added embarrassment of describing the actual symptoms.

Some important consequences of this patient's story occur. Firstly, the other patients in the FGD laughed and were able to empathise with the patient who was telling the story. Secondly, they too, admitted they were unaware such a condition could be associated with diabetes and they too found support in learning from each other. The patient's story also seemed to indicate that initially her description may not have been correctly understood and she was referred from a local clinic to the district hospital for further treatment. This would have caused further distress and anxiety on the patient's behalf. She mentioned towards the end of the story how her doctor understood her problem and was able to understand the metaphor, explain the link with diabetes, relieve her anxiety and treat the problem with respect. In order to be able to understand the metaphor, a certain amount of knowledge of local geography and cultural practices would be required. It was an entry ticket into the patient's life-world and a means to gaining a patient's trust and respect. However, it also required that the listener be understanding and respectful of the patient's story. This was not a story that would fit

into any textbook description of symptoms of vaginal thrush but required an understanding of the patient's context and a willingness to enter into her life-world.

From the doctor's perspective, thrush is a fairly common complication in diabetes that occurs as a result of high glucose levels. Diagnosis is relatively easy and treatment is readily available and effective. However, the experience for a patient is somewhat different. The inflammation and itchiness associated with the vaginal discharge makes sexual intercourse unpleasant. This extract describes the anxiety and embarrassment created by this condition, the difficulty in expressing the exact problem and the fear associated with a disease of unknown cause. Similar symptoms may also be experienced with other sexually transmitted diseases and in the context of an HIV-affected population the stigma associated with genital infections is high. The manner in which the doctor is able to show empathy through his understanding of the metaphor, contributes to the reduction in anxiety and fear on the patient's behalf and builds tremendous trust and loyalty within the relationship.

These examples indicate various missed opportunities as well as positive examples of display of empathy for physical and psychological well-being. The crucial role played by this attitude and manner in which it is expressed is evident in the way in which the relationship develops. The interaction between participants is highlighted as a crucial way in which the relationship becomes co-constructed and meaningful to both doctors and patients.

7.2.1.2 Trust

Trust is an element central to the therapeutic relationship especially in chronic disease management. It forms the basis upon which mutual decision making can take place and is instrumental to good adherence and improving health outcomes (Ciechanowski et al., 2001; DiMatteo et al., 1993; Heisler, Bouknight, Hayward, Smith & Kerr, 2002). Evidence of a trusting relationship was displayed where patient E1 admited to defaulting her insulin dose that morning and in the way patient E4 trusted DrE enough to relate the story of how she was taken to another private doctor without betraying her relationship with him. Both these examples indicate how sharing of information in a truthful manner facilitate therapeutic decision-making.

The issue of trusting patients to disclose the use of traditional medications was raised. Doctors, trained in Western medical practice, tend to feel uncomfortable with the use of complementary and alternative medicines (CAMs) and are doubtful as to the drug interactions that may occur and unknown side effects that are possible (Haque et al., 2005). As a result, patients do not disclose the use of such medicines to their doctor in order to avoid the conflict between different cultural practices and understandings. Some indicate that up to 80% of African people may consult a traditional healer before seeking western medicine (Ellis, 1999; Marais, Steenkamp & Du Plooy, 2015). Literature indicates that non-disclosure of the use of CAMs can sometimes be as high as 77% (Robinson & McGrail, 2004). Although no evidence is noted in any of the consultations about the use of traditional medications, patients at Site 2 reported that they would feel comfortable discussing this with their doctor indicating the level of trust in him. This display of trust links to conclusions made by Lotika, Mabuza and Okonta (2013) regarding patients' preference to seeking help from traditional healers rather than western medicine as they trusted the traditional healers more. The interactions at Site 1 where patient R5 doesn't seek help timeously for her chest pain and patient R6 has made alterations to his medication without prior consultation with the doctor also tend to substantiate the view that

trust plays a vital role in potentially acknowledging health care behaviours different from those suggested by the doctor.

Collaborative alliances, awareness of barriers, identification of strategies to overcome barriers and problem solving are key in terms of effective diabetes management (Nagelkerk, Reick & Meengs, 2006). DrE acknowledged the importance of a trusting relationship in order to achieve therapeutic goals and elaborated in his interview the manner in which he continues to strive to achieve this trust. However, patients at Site 1 seemed to have difficulty relating the truth to their doctors. Patient R4 was admonished for giving untruthful answers as to her glucose readings and lifestyle management. Even when the doctor attempted to encourage the patient to elaborate on her diet by assuming and almost normalising the eating of chocolate (line 147-148), the context of the compound, close-ended questions and the previous experience of having her diet interrogated, limited the patient's response to a simple "no". Patient R3 was also caught out for dishonestly recording his glucose readings. This example represents a lost opportunity for the doctor to support his patient and gain his trust and respect. The manner in which questions were asked, the way in which the contextual life-world of the patient was ignored and the apparent lack of interest in the patient, all contributed towards the barrier created in the relationship and the inability to recall the truth.

Even in consult R6 where a bilateral discussion of insulin regimens was undertaken, the patient deemed it necessary to emphasise to the doctor in line 54 his wish to present the truth ("I don't want to hide anything from you doctor. I'm telling you straight."). However, the doctor's response in lines 58-59 indicated there may well be some degree of mistrust. This distrust is confirmed by the doctor as she expressed her sentiments in lines 188-190 - "This isn't a medico-legal document, you're not going directly to jail with this. Relax!". Perhaps it is the agenda of the doctors to "catch out" the patients that became frustrating and led to further untruthful answers rather than the collaborative way of trying to convince patients that a shared decision needed to be made.

Trust in the attending doctor has also been shown to be an important indicator of patient satisfaction. (Baker, Mainous, Gray & Love, 2003) described in their study that patients who trusted their doctor showed the highest levels of satisfaction. As described previously, the overall sentiment of patients at Site 2, despite the limitations of the health care system and resources available, is that they are satisfied with their care. This is seen to translate into the way in which they are empowered and able to manage their disease within adverse circumstances. The lack of mutual trust demonstrated in consultations at Site 1 may be a strong influence on the dissatisfaction and lack of support perceived on behalf of the patients and the frustrations experienced by the doctors.

Trust has been described not as a static state but rather a sentiment that develops over time that is influenced by previous encounters and meeting of expectations throughout the time period (Dunleavy, Chory & Goodboy, 2010). Evidence within the consultations of a strong relationship being displayed during initial greetings and maintained through behaviours throughout the consultation exists. The road of chronic disease management is a long and arduous one and if it is to be successfully negotiated, requires continual trust of the doctor that they will act in the patient's best interests and work with the patient for mutual good. The impact of past encounters on relationships has been discussed with the value placed on trust again noted to be a vital component of these perceptions. It is built over time and depends on numerous behaviours throughout the interaction as (Skirbekk, Middelthon, Hjortdahl & Finset, 2011) discuss.

7.2.1.3 Respect

Respect is a feeling that can be given and received. It may be demonstrated in a number of ways including the way in which a person speaks, the physical gestures used or even their physical appearance. The value of respect within African culture has been previously alluded to in Section 3.2.3. The concept of *uyamehlisa* was referred to in Section 6.2.2 in reference to African patients wishing to show respect for persons of higher social standing and not wishing to disagree with them. However, it remains just as important for the doctor to display an attitude of respect for the patient as a key component to building a therapeutic relationship.

Respect for patients was shown in the way in which they were greeted by their formal titles and polite forms of address. In particular, the manner in which patient E9 was addressed demonstrated a deep understanding of cultural beliefs and preferences and situated the patient within her cultural context demonstrating respect and knowledge of this position and her status as a member of a clan. The manner of enquiry as to the health of the family by using the plural pronoun when addressing a patient also conveyed respect for cultural norms.

A lack of respect was noted in the lack of formal greetings and poor closures at Site 1 in all consultations. In consults R1-R3, the doctor spent a good deal of time, reading notes and examining laboratory results before even acknowledging the presence of the patients. The non-verbal responses, facial expressions and short, terse verbal response displayed by the patients at this time confirmed the anxiety and discomfort they felt as a result of these behaviours.

The ability to maintain eye contact gave interesting insight into how respect was demonstrated in this study. Maintaining respect for a person of power within the traditional African culture includes not having direct eye contact with the person, allowing a senior to acknowledge the presence of a subordinate person and the senior person being at an elevated level to the other (Turner et al., 2015). Certain of these behaviours may well indicate respect for a position of power and should not be misinterpreted as the patient not being engaged in the conversation, not responding adequately or giving mis-information. However, it was the rural African patients at Site 2 that were able to maintain eye contact throughout the consultations and seemed comfortable to present their true sentiments to the doctor without being disrespectful. On the contrary, patients at Site 1, of all cultures, tended not to engage in direct eye contact with their doctor and displayed facial expressions consistent with feeling intimidated and threatened. In some cases (R3, R4), the patients were accused of cheating and lying which immediately conveyed a lack of respect of the autonomy of the patient. Patient R5 was also chastised for not attending correctly to her symptoms as was patient R4 chastised and ridiculed for her perceived lack of interest in the consultation and in her diabetes management. Once again, the incongruity of the words spoken, “You are clever, you are educated, you are intelligent”, and the manner in which they were delivered altered the meaning from one of respect for the patient to displaying an attitude of distrust and disrespect. These results indicate that behaviours may be more related to contextual elements and the way in which interactions within consultation are performed and not simply a stereotypical checklist of the culture of the participants.

The data collected in this study also indicated that respect can be shown for the patient as an individual and the patient as a member of a community. There was also evidence to show that respect can be demonstrated by individuals or by the hospital environment itself. As mentioned in Chapter 2, *Batho Pele* principles have been implemented within the South African Department of Health to

improve public services and encourage departments to place “people first” (Department of Public Services and Administration, 1997). BP4 relates to courtesy towards clients and encourages attitudes of respect to be demonstrated at all times. The use of formal openings and greetings addressing patients by their appropriate titles or using polite generic terminology enabled the patients to occupy the position of “*gogo*” or “*mkhulu*” within the community – positions that are associated with respect in their own right. The use of *izithakazelo* or *izibongo* to greet the patient also indicates a deep respect for the patients’ roles and station within the community.

Patients at Site 2 reported that they felt respected in the way they are treated at the hospital, the fair manner in which they were attended to and the regular provision of medication and sound work ethic of the hospital staff. The sensitive manner in which patient E4 was addressed and her literacy levels questioned also demonstrated respect and the resultant effect was that the patient seemed willing to assist the doctor to the best of her abilities. By attending to patients’ needs, engaging in small talk and acknowledging their life-world contexts, DrE was able to show respect for his patients as people and members of a community.

An interesting observation was the way in which time was perceived by patients in this study. Time is viewed as a resource in health care in South Africa but is certainly not a unique challenge. International researchers have concluded that health outcomes can be improved and money saved if health care practitioners are given adequate time to engage with their patients and communicate adequately with them (Napier et al., 2014). Developing rapport and effective communication may be considered time-consuming and virtually impossible in a resource-constrained environment. However, other studies have also indicated that attitudes of respect and empathy can be demonstrated without a major time investment (Mauksch et al., 2008). Patients at Site 2 had no comments about the length of their consultations not the waiting time they experienced. Rather they reported to be satisfied and content with the service they received indicating that the way in which their needs were attended to and respected was more important to them than the actual time spent. In addition, tools such as humour and demonstration of cultural competence have been shown in this study to effectively build the therapeutic relationship even within the opening lines of an interaction. Conversely, it has been shown how relationships can be broken down in mere seconds when there is evidence of disrespect and mistrust.

At Site 1, patients noted their lack of privacy as a significant concern and measure of disrespect. Healthcare facilities should be convenient and acceptable to the community and service within the facility congruent with the community needs and preferences (Saha, Beach & Cooper, 2008). Consultations at Site 1 demonstrated the interruptions of a ringing telephone, interchanges with other health professionals within the same consultation room and lack of space for examination that were not congruent with the patients’ needs and preferences. This lack of privacy hampered patients’ ability to engage fully with their doctors as they were frequently seen to offer face-savings excuses rather than admit the truth of their behaviour.

Respect was also demonstrated in the way in which cultural norms were acknowledged and understood. One of the participants in FGD2, related an incident of a metaphorical story involving a complication related to her diabetes (see Section 6.3.4). She expressed her satisfaction and delight in the way in which the doctor was able to understand this metaphor. Within African culture, it is considered polite and respectful to use metaphorical stories particularly with regard to sexual references (Ellis, 2004) as is demonstrated by this story.

Respect for a patient has also been shown previously to improve patient satisfaction with the consultation which in turn, improves long term adherence and health outcomes (Comstock, Hooper, Goodwin & Goodwin, 1982). This display of respect may be another contributor to the way in which patients feel equipped to manage their disease.

In addition to these "positive" attitudes that are attitudes that emerged that tended towards a detrimental effect on the relationship. Issues of distrust alluded to above and power struggles that became evident within the observed communication.

7.2.1.4 Power

The Foucauldian perspective influencing social constructionism challenges the power of authority and superiority and views power not to be oppressive but rather as a form of social organisation based on legitimate authority (Lupton, 2012). This implies that doctors do naturally have power over their patients but that this should be managed appropriately. As seen in chapters 5 and 6 the evidence suggests that where some relationships displayed significant power gaps whilst others were able to share the power between them. Those relationships where a doctor was seen to exhibit his / her status over that of the patient, tended to result in a break-down of the relationship, disagreement over decision-making and ultimate ceding of power to one side or another. In other relationships where doctors shared decision making processes with patients where it was appropriate, patients tended to respond positively and the relationship was strengthened.

The way in which information was given to patients reflected the power dynamic between doctor and patient. In consult R1, the doctor was very pragmatic and direct towards the patient, highlighting her faults and problems and issuing direct advice where it was deemed necessary. The patient did not ask any questions of the doctor but only responded to direct enquiries. In consult R2, the doctor demonstrated his knowledge of clinical guidelines instructing the patient as to desired laboratory values for his cholesterol profile. When the patient did ask questions of the doctor, these were ignored. Numerous examples of cut-off turns were also noted in this interchange. Demonstrations of power were noted when DrR1 emphasised to patient R3 how lucky he was to attend the "special clinic" and accused him of lying and cheating in his glucose testing. In a similar manner, DrR2 also demonstrated power over the patients as she chastised patient R4 for not taking good care of her lifestyle and not "listening" to advice given. She also berated patient R5 for her perceived lack of concern with her diabetes and high risk for complications and organ damage.

Language usage is associated with power especially within the context of post-apartheid South Africa (Ellis, 2004). Political divisions during apartheid were partially based on those who were able to communicate in English or Afrikaans and those who weren't. African languages were side-lined and their use discouraged. The ability to communicate in English (when it is not one's home language) also presupposes a secondary level of education and therefore conveys a distinction of power. This is noted in the power held by the junior staff nurse who is able to chastise patients in a similar way to how the doctor does when the patient is deemed to be non-adherent. Wardhaugh and Fuller (2014, pp. 94-99) comment on this perceived status of superiority amongst those communities where multilingualism is considered unusual or envied. This is the case in most of the western world where mono-lingualism is an accepted norm. Despite South Africa having eleven official languages, a minority of African people report English to be their home language. A recent report by Posel and Zeller (2015) indicates that the prevalence of English as a first language amongst African people has risen from 0.35% in the

1996 census to 2.89% in the 2011 census although rates of first language English speakers amongst the African population in urban areas are still almost four times higher than in rural areas. Mono-lingualism amongst African adults (in particular, those whose first language is isiZulu) has decreased from just less than 88% in the 1996 census to 46.5% in the 2011 census. During the same time period, mono-lingualism amongst those adults whose first language is English has risen slightly from 36.9% to 40.9% (Posel & Zeller, 2015). Although multilingualism in South Africa appears to be on the increase, it seems to be African people who are learning to speak English rather than the other way around. This becomes relevant within the South African health care system particularly in rural areas where the gap in education status is most noticeable.

By conducting consultations in the home language of his patients, DrE seems able to balance the power differential. He allows the patients the comfort of their own language as he converses in a language slightly less familiar and comfortable for himself. Although the doctor still held intellectual and clinical power in these encounters, patients held the power of communication. The way in which these patients engaged in conversation, freely entered into code-switching where it became easier or more appropriate and ignored minor linguistic errors strengthened the relationship between them and their doctor and enabled greater interaction to occur. Wardhaugh and Fuller (2014, pp.101-114) further described how complete fluency in multiple languages is rare and that code-switching is a common phenomenon in multilingual conversations in order to compensate for incomplete fluency.

7.2.2. Past experiences or a blank slate?

In the early twentieth century, researchers such as Pavlov (1849-1936), Watson (1878-1958) and Skinner (1904-1990), began looking at the concept of "behaviourism" which referred to the cause-effect nature of human behaviour. Independantly, they carried out studies where they showed that humans (and animals) could be trained to act in a certain manner as a result of a certain stimulus. The famous "Pavlov's dogs" experiment showed how dogs could be trained to produce a conditioned response to a neutral stimulus (Pavlov, 2003). Previous research in diabetes adherence as described in Section 2.4, has viewed adherence and clinical management in a very similar light. Such behaviours are noted in the frustration of doctors at Site 1 when their daily "shouting and screaming" does not seem to produce the desired effect of good adherence. By trying to target the logical and clinical thought process whereby poor adherence and undesirable high risk behaviours can be eradicated by admonishing patients, they seem to be neglecting the human and emotional influence on decision-making. Although patients in FGD-1 do admit that sometimes this spurs them into action, the general attitude seems to be that of disillusionment and despair in their care.

The constructionist approach to these dilemmas of management values the process by which change is modified rather than the product that is aimed for and achieved. Vygotsky (1896-1934) and Piaget (1896-1980) were leading researchers in the field of social constructionism and learning theory (Vygotsky, 1962; Piaget, 1959). They saw learning as an active process which valued the manner in which people learnt and were able to construct their own realities. They also valued the influence of past experiences and contextual factors on the learning process as opposed to behaviourism which tended to view its subjects as a "*tabula rasa"* or blank slate.

At Site 2, patient E1 was addressed initially by her first name as well as other patients addressed by name prior to the doctor taking their file indicating that he recognised them without having the file as a prompt. The way in which patient E1 was addressed by her first name has already been discussed as unusual within the cultural context but the engaging way in which the consultation proceeds in comparison indicates that a previous relationship is evident.

The way in which humorous remarks are responded to bears testimony to the creation and maintenance of these relationships. Patient E16 does not take offence to the remark "Where were you hiding last month"

relating to her previous missed appointment as she is accustomed to his jovial, light-hearted manner of addressing problems. Similar attempts at humour in consultation R4 are not as successful also relating to past episodes of ridicule and displays of power within the consultation.

Consults R3 and R4 give an indication that advice has been given to the patients on a previous occasion and yet adherence is still not satisfactory. In consult R6, the doctor emphatically insists that the patient return at shorter notice in order to check his diary and progress. He has already expressed difficulty in returning due to his work schedule which was ignored. This lack of consideration for his life-world may well influence and be the cause of future missed appointments. In analysing these consultations, it becomes evident that the way in which adherence is approached and behaviours criticised may well provide strong evidence to explain these prior behaviours.

Seemingly inconsequential remarks in various consultations at Site 2 provide evidence that the doctor is aware of prior life-world occurrences and although they are not directly relevant to the clinical consultation, they provide affirmation for the patient of the doctors' care and empathy. In consult E13, the doctor refers to previous heart surgery the patient has had, in consult E14 he refers very briefly to the patient's daughter, in consult E15 the patient refers to the doctor's care of her uncle whilst he was in hospital and in consult E18 the doctor enquires after an injury the patient sustained previously. All these seemingly meaningless remarks indicate that a relationship between doctor and patient exists beyond the current consultations. Even within the remarks themselves, it is evident that these encounters include displays of empathy (asking how surgery went), trust (patient acknowledging the good care of her uncle) and respect (enquiring about the family's well-being).

It is evident that the perceptions of doctors and patients have been moulded and formed over time with past experiences influencing how future behaviours will play out. Behaviours and experiences noted in the current consultations can also be expected to determine future relationships and outcomes. This was evident in a number of consultations at both sites where patients and doctors' responses related to prior events and communication. It also explains the importance of a developing relationship that occurs during the journey that patients and doctors take together in the management of diabetes.

7.2.3 Forming a unique reality

Not only is the interaction between doctor and patient able to be analysed but the comparison with other data from interviews and FGDs is able to strengthen the findings and provide evidence to substantiate the interpretations of behaviour as they are observed as supported by Maynard and Heritage (2005). In interviews or even quantitative data collection, the possibility exists that participants may respond as they think the researcher may expect them to. However, in this study, the analysis of naturally occurring data substantiated and explained by interviews and discussions with participants allows greater credibility of the data. The attitudes at play and the influence of past experiences all contribute to shaping the reality of the current consultation.

A particular example of how the interplay of attitudes, behaviours, communication, contextual factors and past experiences all unite to form a unique reality, is demonstrated by looking at the theme of humour within the interactions.

Humour

The use of humour is known to be able to build and maintain relationships as well as to mitigate against frustrations, however, its use in the medical world has not been well documented. The work of Dr Patch Adams at the Gesundheit Institute was founded on the fundamental values of promoting empathy and improving patient well-being and was brought into popular culture by the movie "Patch Adams" (Adams, 1993). Here the purpose of humour was to provide amusement, promote laughter and stimulate healing. Behavioural studies

have shown that oxytocin is released from the pituitary gland in response to positive social interactions, particularly those that involve humour. This hormone has been implicated in establishing feelings of love, empathy and relationship building between people and causes a strong desire to continue these positive encounters (Lee, Macbeth, Pagani & Young, 2009) providing a positive explanation for the role of humour in therapeutic relationships. In keeping with the indirect manner in which African tradition prefers to address situations, the use of humour has been described in African culture to communicate on subjects that would otherwise be considered taboo in polite conversation, to cope with feelings of despair and frustration, to alleviate social interactions and to identify oneself as part of a specific group (Dowling, 1996; Turner, 2004).

The humour utilised during the consultations in this study revolved in most instances around sickness, growing old and dying. These are not always considered "safe" topics around which to create humour. In some instances, (consults E1, E12) patients initiated the topic around their illness and growing old themselves. Other examples occurred in consults E2 and E7 where humorous remarks were shared about the patients' age. Old age in African tradition is associated with a great deal of respect (Turner et al., 2015) and thus the use of humour on the topic may be a mechanism of showing cultural understanding.

A similar remark about age was poorly received in consult R6. After a lengthy consultation in which there is a great deal of retort between doctor and patient, the doctor made a comment about the patient's age saying she considered him to be a young diabetic. (The patient was 46 years old and had had diabetes for 22 years). Although the intention of the comment may have been to alleviate the patient's concerns, previous behaviours during the consultation seemed to taint the way in which this remark was received and the humour was poorly accepted.

The concept of sickness is also not a common topic of humour between doctors and patients. Examples of such jokes, humorous remarks and comments around the subject of sickness were alluded to in consults E2, E11, E12 and E15. In all instances, patients responded by smiling or laughing or engaging further with the doctor on the subject.

In the African culture, death is seen as a joining of the physical and the spiritual world and an elevation to the status of an ancestor (Jali, 2000). Multiple rituals are associated with death and dying and the passing from the human to the spirit world. In consult E15, the doctor suggested that if the patient discontinued her medication she should buy a shovel. The patient understood the use of a shovel to dig a grave and shared a laugh with the doctor. Another reference to the patient's impending doom was shared in consult E1 to express how poorly the patient was feeling in the remark "Ngiyafa". Literally translated, the patient is saying "I am dying" however, the root word '–fa' in isiZulu also means 'to suffer'. The ease of exchange around these topics that occurred may well demonstrate a shared respect for death and old age and a deepening of the doctor-patient relationship. It may be used to create bonds of trust and respect as well as to negotiate difficult territories. By successfully engaging in humour on this topic, a knowledge and appreciation for these customs would have been demonstrated. Similar effects have been noted in the use of humour within oncology consultations where consultations are frequently about breaking bad news, discussing treatment options and supporting a patient and their family on a journey (Joshua, Cotroneo & Clarke, 2005). In such consultations it has been shown to set a more relaxed tone for the consultation where the content of what is discussed is deeply serious, to facilitate communication on more equal terms between doctors and patients and to enhance the human connection between them.

Within this study, humour was seen to play a vital role in establishing relationships and maintaining rapport. This was seen in a number of occasions at Site 2 where patients were greeted in a humorous manner (consults E8, E13 and E14), concerns made light of through the use of humour (consults E1) and challenges in non-adherence mitigated through humour (consults E15 and E16). (Habib, 2008) shows similar effects through the use of humour in establishing rapport and maintaining relationships amongst peers. Although when asked directly, DrE denies using humour as a tool, he acknowledges that it is simply part of his nature. A similar view is held by Adams (2002) as he explains his own personal experience with the use of humour in demonstrating love and empathy for those who are ill. This may give a valuable insight into whether humour may be able to be

taught or whether it is simply an expression of underlying attitudes of positive regard and affinity with others. Other authors have also highlighted the use of humour within the medical consultation as allowing participants to share in a uniquely human ability. This allows people to emphasise the humanity and similarity between them rather than the differences that exist (Haakana, 2002; Sacks, 1992).

The adverse effect of ridicule and derisive humour noted in consult R4, in particular, demonstrated the barrier that can be created in the doctor-patient relationship. Similar examples occurred in consult R3 where the patient was made aware of the privilege of attending the "special clinic" and the failed attempt at humour in consult R6 described above. In all these examples, the ridicule demonstrated by these behaviours was followed by limited responses from the patients with little verbal interaction and a consequent disengagement in the consultation. The detrimental effects of sarcasm and ridicule are also discussed by Martin and Lefcourt (2004) in relation to the way in which they are seen to destroy relationships and lead to poorer health outcomes. Such failures of humour may allude to prior interactions that have had a negative impact or indeed, bring to light, underlying attitudes of power, mistrust and disrespect that shape behaviours. In contrast to utilising humour to demonstrate cultural awareness and empathy for patients, these examples of ridicule highlight the break-down in communication and subsequent relationship between doctor and patient.

7.3 The social construction of reality within consultations

In the 1960's, Berger and Luckmann (1966) described how people and social groups who interact over time, create their own concepts of observed actions and behaviours. Furthermore, these actions tend to become habitual and are later reciprocated. When these behaviours become entrenched within societal norms, they then become "institutionalised" and consequently meaning is attached to these actions. Thus, the reality that is observed at any particular point in time in society is said to be socilally constructed. It is widely accepted that what one considers to be acceptable or normal behaviour in one culture may not be so in another. Society often summarises these behaviours into a checklist and advises certain behaviours when interacting in a particular culture. Western culture prefers a firm handshake as a formal act of greeting whereas Japanese custom is a bow (*ojigi*).

The model developed by Berger and Luckman (1966) to demonstrate the processes by which this reality is formed is shown in Figure 7.1 below. Although the relationship in the model is shown as a linear, unidirectional relationship, the discussion above indicates how internalised behaviours can lead to consequent ideas, thoughts and feelings.

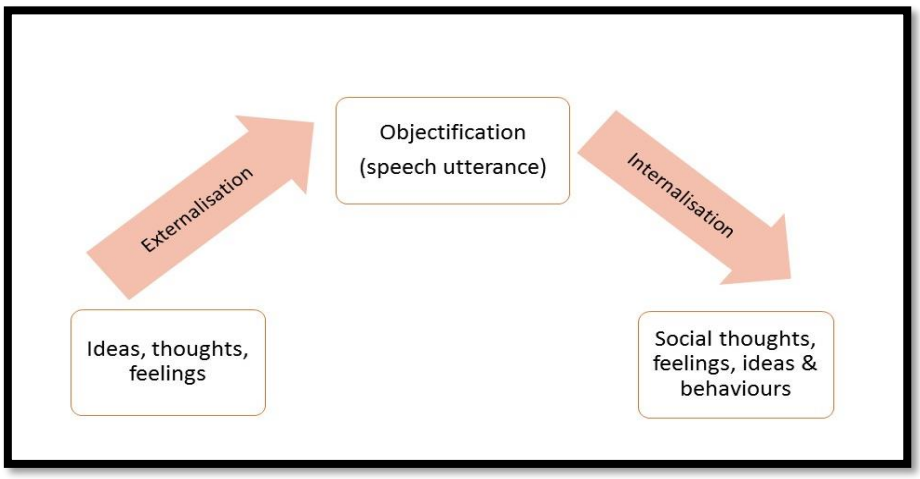

Figure 7.1 Model describing Berger and Luckman's (1966) concept of the social construction of reality

This model bears many similarities with Candlin and Rogers' model (see Figure 3.1) of health communication interactions in that messages are transmitted and interpreted within the context in which they occur. If this model is applied to health communication as demonstrated in this study, the mechanisms underlying health communication interactions becomes evident.

7.3.1 Externalisation - Use of language

The ideas, thoughts and feelings of doctors and patients observed in this study are only able to be explored by proxy. Either they can be inferred from the communication that occurs within the consultations or by specifically enquiring about these attributes from the participants themselves. Chapters 3 and 4 have already provided a sound argument for the use of the methodologies in this study in terms of acquiring these "truths" as well as exposing potential influences on the validity and credibility thereof. In order to externalise these attributes, the use of a language system for communication is required.

Firstly, the choice of DrE to conduct his consultations in the language of choice of his patients has been independently shown to convey empathy, trust and respect. His fluency and ease in isiZulu suggest that some reflection occurred in the past which led DrE to consciously decide to adapt his use of language so as to enhance his interactions with patients. It is this process of refection and altered behaviour over time that informs his attitude towards his patients. Secondly, this choice of language usage has also been suggested to break down power differentials between doctor and patient and allow patients the status of conversing in their own home language. He uses his knowledge of language and culture to utilise the correct forms of address and respectful titles as well as to pay attention to the cultural context of the interaction. Despite the fact that DrE is conversing in a non-first language, there seem to be no mis-communications or misunderstandings in the messages he conveys. Despite grammatical errors in his speech, the message seems to be adequately conveyed and received. He is seen to augment his verbal messages with non-verbal hand gestures to enhance their meaning. This method has been discussed by Watermeyer and Penn (2009) as being effective when communicating in cross-linguistic circumstances.

On the other hand, mis-communications occur frequently at Site 1 and even more so when an interpreter is used. The doctors admit to having very limited understanding of isiZulu and thus the messages "translated" by the nurse cannot be verified. The incorporation of the interpreter is also mistimed and she is brought in at a point in the consultation when the relationship has already broken down further limiting the correct interpretation of the message by the patient. In addition, the manner of speech and terminology used such as "you are lucky to be here"... in this "special clinic" contribute to the meaning conveyed through language. Other attitudes conveyed are noted in the comment that patients may not be able to understand and therefore simple language should be used as DrR2 comments on English being "too high-faluted". It is through the use of language that attitudes or feelings of empathy, trust and respect are conveyed. Thus it seems that the views of Levin (2006a) and Deumert (2010) described earlier may well hold true in that language is indeed a barrier. However, it is not this challenge alone that is the barrier but rather the underlying attitude that guides whether participants demonstrate the curiosity to explore the world of the other or not.

7.3.2. Objectification – Beyond a checklist

Once coded into language, these ideas, thoughts and feelings are able to exist independently of the speaker. These utterances are what is usually studied by linguists and researchers as they aim to analyse the meaning of these individual objects. The RIAS scoring system described in Section 3.2.2.7, gives great significance to these utterances as they occur. The CCCG checklist also honours observed communication techniques although it does acknowledge contextual influences, these are not well researched outside of the context in which the system was developed.

Communicative guides have favoured the use of a checklist of skills and processes which are advocated in order to achieve the outcomes of the consultation (Kurtz et al., 2003). These have included an almost exhaustive list of content that should be covered within the consultation in addition to the manner in which this information should be gained. From a biomedical perspective it may be argued that such information is vital to guiding management decisions from a medico-legal point of view although the reality of the health care system is that resource constraints do not always allow for an in-depth exploration into all these aspects at every visit.

One benefit of approaching this study from a social constructionist perspective is the way in which it allows for text to be analysed for recurrent features of interaction and to derive meaning from the actions observed. It also allows for analysis of how words are spoken and has placed more emphasis on the role of communication within the relationship rather than purely on the content of the communication. Doctors in this study were not formally trained in any specific communicative techniques and have adequate experience in order to have developed their own particular styles. Thus rich data is generated from observing the consultations from an interactive point of view.

Firstly, regarding the overall duration of the consultations, although there did seem to be a natural decline in the length of the consults during the observation period, the actual length of the time spent with the patient seemed to have no correlation with the patients' satisfaction nor the outcomes of the consultations. Interactions at Site 2 were much shorter than at Site 1 yet patients were satisfied with the length of time they spent with the doctor and displayed more constructive interactions.

The content of the consultations was seen to differ considerably particularly within consultations at Site 2. The most structured sections of the consultation were the opening and closing sections while the body of the consultations was extremely variable and followed no particular pattern. The importance of addressing a patient by their name took on further cultural and contextual significance when the greeting was used as a means of displaying respect for the patients' cultural beliefs and customs (refer in particular to consult E9). Other forms of addressing the patient in a culturally appropriate manner were discussed as conveying respect and easily achievable for a person conversing in a second language. The traditional western emphasis on the doctor introducing him/herself was not shown to be of significance although there was evidence to suggest that patients were already familiar with the doctor from past experiences. Features of closing segments of the consultation also demonstrated the respect shown by ending a consultation in an appropriate manner and paying attention to immediate logistical concerns the patient raised.

Within the body of the consultation, various aspects of diabetes management were addressed including personal and family history, blood glucose testing, lifestyle management and adherence to medication although it was the attitudes displayed whilst eliciting this information that played the

greatest role in communication. Patients at both sites were satisfied with the knowledge of their doctors and did not question the medical care which they received. However, not all relevant information was gained from all patients particularly at Site 2 where only a minority of patients had access to blood glucose testing and were asked about particular lifestyle behaviours. However, in eliciting the desired information, DrE was able to show empathy and respect for the patients and they reported to trust him even with confidential information and in discussing the use of traditional medication use. On the other hand, the frustration felt by doctors at Site 1 when patients' behaviours were not as they desired, led to attitudes of distrust, disrespect and even anger.

When analysing the process skills displayed by doctors when communicating, many communicative techniques described in the CCCG were shown to be not as effective within a different socio-cultural setting. In particular, the use of open-ended questions within the African culture may suggest the doctor is incompetent in observing details of a patient's health status. Statements confirming the obvious may be preferable in such interactions as a means of demonstrating empathy with the patient. Examples of this type of behaviour are seen in the opening statements made by DrE. Although the majority of these statements as "general enquiry" or open-ended questions, they are followed up with more direct closed-questions stating what actions need to be taken. In contrast, the use of and response to open-ended questions at Site 1 is also noted to be dependent upon how the question is phrased and interpreted by the patient. A particular example is highlighted in consult R1 where although the doctor asks an open-ended question, the follow-through and tone of the question results immediately in a limited verbal response which continues almost throughout the entire consultation.

Even non-verbal communication was seen to play a role in the externalisation of ideas and feelings. The use of eye contact was also shown to be another behaviour that needed careful attention to the cultural context. Common practice amongst teachers of communication skills in cross-cultural environments has been to advocate avoidance of non-verbal behaviours that may be misinterpreted by another culture. This has resulted in avoidance of physical touch and direct eye contact where it is perceived to be potentially disrespectful (Schouten & Meeuwesen, 2006). However, recommendations are now advocating a reflective stance that allows for curiosity, respect and a desire to enhance cultural competence (Seeleman, Selleger, Essink-Bot & Bonke, 2011). This is aptly demonstrated in the way in which patients at Site 2 are noted to maintain eye contact and interact equally with the doctor despite obvious cultural and social differences. However, the soft-spoken verbal responses and lack of eye contact of some patients at Site 1 is not afforded any other interpretation other than disengagement of the patient and lack of interest in the consultation. Another hint at the influence of past experiences and against an argument for communicative behaviour checklists.

Various communication techniques or process skills were also seen to contribute to the manner in which these feelings are externalised. By echoing the laboured gait of his patient in his prolonged, laboured greeting (consult E4), DrE is able to demonstrate empathy towards her pain and discomfort. By engaging in small talk whilst he is writing notes, he also is able to tap into the life-world of the patient in consult E1. The use of hand gestures to respectfully augment the meaning of his message in consults E4 and E7 to patients with reduced literacy is noted to build the relationship in a positive manner. In contrast, the prolonged silences, interrupted turns and dominance of speech by the doctors at Site 1 tend to convey superiority and power over patients.

7.3.3. Internalisation

In the model depicted in Figure 7.1, Berger and Luckman describe how these now externalised objects then become internalised to create a social reality. When applied to human communication as observed in this study, the mechanism by which this occurs is seen to be influenced by the social-cultural context and interpersonal relationships.

7.3.3.1 Socio-cultural factors

Another aspect of social constructionism is that people's actions tend to be based on their interpretations of how their context is taken into account and defined. All patients accessing the public health system in South Africa may be considered to emanate from a similar socio-economic environment. However, the way in which the interactions developed with their doctors was markedly different. Poor socio-economic conditions have been postulated as a barrier towards adherence in diabetes care (Bailey & Kodack, 2011).

Littlejohn and Foss (2000, pp. 45-46) described how constructionist theory acknowledges that the world is composed of objects which have socially determined meanings. These objects may be found within life-world of the patient and his / her community such as language or cultural beliefs or they may be part of the world of the health care system in which the patient and doctor meet. Each participant exists within their own life-world, the form of which can change and adapt over time. It was for this reason that Napier et al. (2014) suggested adapting "imported material" to the socio-cultural context in which it is used.

As mentioned earlier, different cultures have different rituals or norms which govern peoples' behaviours and perceptions. Within the African culture, it is considered customary that a person of higher social status or power will initiate a conversation (Turner et al., 2015). It is also considered impolite to voice disagreement with a person of authority explaining why in many instances, patients will tacitly agree with the doctor and not present any form of challenge during a consultation (Turner et al., 2015). The relationship demonstrated by DrE with his patients tended to acknowledge the participants within their social context as evidenced by his manner of greeting; the collective plural used when asking "How are you?" and the enquiry into the patients' life-worlds and family circumstances. The patients, too, acknowledged the way in which they felt respected within their community and as a person. This is an important aspect of the relationship that is seen to develop and may well have contributed to the behaviours observed. By using culturally-appropriate greetings and non-verbal behaviours, engaging in humour with patients and understanding cultural metaphor, DrE seems able to show his knowledge and skills in cultural competence. The reality of residing in a small rural town and being immersed within a traditional African culture may also explain the way in which DrE seemed to identify more closely with his patients, despite being from a different racial and ethnic background. He indicated this in his interview in reflecting upon how he realised the need to adapt insulin regimens according to the patient's abilities and resources taking into account the social circumstances and in how he felt he was able to relate to his patients as "one of them".

The adapted manner in which DrE approached his consultations and the manner in which he had learnt to work within the resource limitations of a rural hospital and still met the needs of the patients was particularly evident. DrE described how he had been able to negotiate this problem over time yet still demonstrate respect and understanding of cultural idiosyncracies. This indicates a conscious

internalisation of observed actions which over time, have created new social norms. Despite the flexibility and experience of DrE in adapting to the situation and the problems he described, he still admitted to feelings of frustration and despair at times. He reflected on the use of humour as a means to counter-act these feelings. His attitude of empathy and solidarity with the patients was displayed in the way in which he shared the problem of medication stock-outs, joked about people jumping the queue and understood the importance of dealing with the whole person rather than just the acute problem at hand. Ellis (2014) described such feelings of frustration and despair as being symptoms of burn-out and stress and went on to describe how doctors need to recognise such symptoms and seek a mechanism of stress-relief in order to prevent professional burn-out. It is evident that the use of humour has been able to mitigate feelings of frustration and improve interaction between doctor and patients.

On the other hand, consultations at Site 1 displayed a conflict between the patient with a disease and the person within a community behind the disease despite some patients sharing the same racial and similar demographic backgrounds to the doctors. Patient R6 battled to negotiate a follow-up appointment that was acceptable to a man who ran his own business and patients R3 and R5 both presented significant life events that were ignored by their doctors. Other patients commented in the FGD how difficult it was for them to cope with their disease within a social context as they had to eat differently, attend regular clinic appointments and take time out of their daily routines to inject and test themselves. Their role as a social being had been overlooked and forgotten.

Literature emanating from developed world environments advocate that patients enter into a dialogue with their doctor and share management decisions and opinions (Charles, Gafni & Whelan, 1997). Within a complex disease such as diabetes where multiple treatment options are available and decisions need to be tailored to suit the patient's lifestyle, shared decision making would seem the most appropriate option. This study indicates that true sharing of decision making is not very common within the consultations. In this data, patients seldom question the decision of the doctor and when they do challenge management decisions, it would seem that the doctor is ill-equipped to handle the situation as was revealed in consultation R6. Doctors who are unfamiliar with cultural customs are also seen to miss cues such as a softer-spoken voice or the avoidance of eye contact, and potentially misinterpret these as unwillingness to engage in the conversation. The review by Pollard, Bansback & Bryan (2015) on doctors' perceptions about decision-making is that doctors often do lack the skills to engage with their patients. The evidence from this study on how patients interact and are able to share in the management decisions of their condition indicates that patients are eager to gain knowledge of their condition and take more control. Patients at both sites indicated the need for support groups that could enhance their knowledge of diabetes and contribute to psychosocial well-being. Patients at Site 1 did ask questions of their doctors about their care but these did not result in a satisfactory discussion. Patients at Site 2, despite poor socio-economic circumstances, racial differences and poor health literacy however were noted to engage with the doctor about their care to some extent indicating a mutual adaptation to each other's context and construction of a unique reality.

A review of patients' perceptions of barriers to engaging in shared decision making found that health system factors and interactional influences were amongst the two biggest factors influencing the ability to share in management decisions (Joseph-Williams, Elwyn, & Edwards, 2014). Health system factors such as lack of time, lack of continuity of care and workflow demands may be considered in this study. Both sites were designed so that patients could be seen by a regular doctor to ensure continuity of care although the results of this were not always positive especially when interpersonal

relationships soured and patients felt compelled to return or were not given the choice to seek another doctor of their choice if available. An interesting finding in this was the inverse relationship between waiting times, consultation duration and patient satisfaction. Despite shorter waiting times and longer consultation times, patients at Site 1 did not comment on these aspects in a particularly positive manner. However, at Site 2 where waiting times were longer and consultations considerably shorter, patients reported to feel as if they were being well-served and well cared for. Again, an indication of a unique reality created by mutual internalisation of behaviours within the context.

This begins to turn attention back to the interactional influences that allow for patients and doctors to share decision making through a mutually-beneficial relationship. Joseph-Williams et al. (2014) discuss how previous experiences may influence patients' ability to engage with their doctor as well as other personal characteristics such as ethnicity, age, gender etc. Galesic and Garcia-Retamero (2011) suggest that patients with low numeracy may prefer a more paternalistic model rather than engage in decision-making with their doctor whilst Peek et al. (2009) also comment on the barriers provided by poor health literacy, race, power imbalances and past experiences towards shared decision making. However, as this study illustrates, these barriers may be overcome by paying attention to the manner in which the interaction occurs and the meaning conveyed in certain behaviours. Even though patients may be considered unable or unwilling to engage in decision-making with their doctor, a relationship based on trust and respect may be able to bridge the gap and allow for more meaningful health care interactions.

The way in which these cultures are understood and managed within the consultation was seen to have a significant effect on individuals and the way in which behaviours were perceived. By recognising that some patients want to please a person of higher authority than them, a doctor may be able to better understand the truth of what is being said and alter the way in which questions are posed. DrE commented in his interview on the difficulty of this but that he was aware of such behaviours. In consult R4, the doctor became quite irate and ridiculed the patient at her lack of ability to engage in the consultation and listen to advice given. The patient's introversion may well be a combination of behaviours exhibited during the consultation as well as a cultural norm demonstrating respect. Furthermore, the use of a soft voice or lack of eye contact may also be considered cultural norms rather than a sign of inattention or disengagement in the conversation. By acknowledging these cultural rituals and norms and attention to such preferences, respect for another's beliefs and culture are seen to contribute to the overall attitude of respect shown and the building of a strong interpersonal relationship.

Language forms an important part of social life and the meaning derived through this symbol has an important influence on the way in which people understand their experiences (Littlejohn & Foss, 2000, pp. 45-46). A person's home language is possibly one of the most obvious and defining factors of oneself as a member of a community. The historical and political background of South Africa places even more emphasis on the importance of language and culture. The previous oppression of races defined largely by their home language and associated race has given rise to strong community bonds and patriotism associated with language and culture. The sense of unease and discomfort felt when immersed in a foreign language or cultural environment evokes strong emotions in certain social and cultural groups.

Engagement between doctor and patient during a medical consultation depends heavily on a keen understanding of what is being verbally communicated and being able to engage effectively in that

discussion. By acknowledging another's language and culture and demonstrating a willingness to engage within that culture, people can convey a tremendous sense of respect and compassion for each other. An example of the efficacy of such behaviour is eloquently described in the patient's metaphorical story relating her symptoms of vaginal thrush to her doctor. This description was her unique method of describing her distress and in understanding the metaphor, the doctor was able to communicate in her language and relieve her fears. Such behaviours, despite being almost impossible to teach, eloquently describe the way in which people create their own realities through the interpretation of behaviours.

Other studies have commented on the dissatisfaction voiced by patients when consultations are not conducted in a language with which they feel comfortable (Levin, 2006a). When patients are unable to express themselves fully or do not understand what is being asked or discussed with them, patient dissatisfaction may result as well as a decline in adherence. DrE describes his initial willingness to learn the language of his patients and now identifies himself as "one of them". He has recognised that isiZulu is a home language for the majority of his patients and has ensured that he can demonstrate his understanding of their language and cultural context. He also discusses the benefits that this has for him in maintaining a relationship with his patients. Although in some instances his grammar is not correct, this is not corrected by patients and the meaning of what he says is still understood. The use of code-switching also demonstrates a willingness on the behalf of both individuals to achieve a shared goal of understanding and solidarity with one another rather than be bound by a specific language code (Wardhaugh & Fuller, 2014, p. 87). This process of internalising a problem and adapting social norms and behaviour is the crux of a social constructionist model that explains behaviour.

The frustration and despair in not being able to communicate with some patients is seen at Site 1 in the exasperated manner in which family members and *ad hoc* interpreters are utilised. Doctors are noted to frequently enquire about patients' understanding indicating that they may be aware of a communication problem. The dissociation and lack of internalisation from the problem of language and limitations of communication that occur as a result have a significant impact on the relationship between doctor and patient and the degree of trust and respect shown in understanding each other.

Patients and their health care professionals in South Africa are unlikely to share the same language and even more unlikely to share the same cultural beliefs, ideas and values. The majority of international literature on the subject of intercultural communication in health care refers to the health care provider being from a majority culture and the patient from a minority culture. However, in the South African health care system, the opposite is often the reality. It would seem logical that the necessity for the doctor to understand a majority culture (or language) would be even greater in such circumstances. Doctors working within a multi-lingual and multi-cultural environment need to be able to understand a patient's illness and the agenda with which the patient presents to them for help. Helman (2007) explains the need to improve cross-cultural communication by paying attention to language, terminology and understanding the language of distress of patients.

A checklist approach to communication and cultural beliefs would expect that interactions between people of a shared culture or gender would be preferable. However, a social constructionist view of the data reveals that individuals do not fit solely into cultural or gender 'boxes' nor do stereotypical definitions define behaviour. The importance of co-constructing a unique reality is demonstrated in the various consultations that despite similar superficial demographic details, have very different outcomes.

7.3.3.2 Influence of interpersonal relationships

Authors have suggested mechanisms by which behaviours may be influenced by perceptions and ideas of others. The Health Belief model described in Section 2.4.3 concentrates on the way in which patients' views of their disease including susceptibility to complications, benefits of compliance and perceived severity of the risk may influence their behaviour (Rosenstock, Strecher, & Becker, 1988). However, this study has shown that patients may be aware of these risks and complications and still not adapt their behaviours. This was particularly noticed with patients at Site 1 who did not comment on any lack of knowledge or lack of understanding and yet were unable to adhere with lifestyle and medication advice. Even within the consultations, it was apparent that patients had been informed of risks and complications on previous occasions and yet had not changed their behaviours. Patient R3 knew he needed to test his glucose levels yet his personal circumstances had prevented him from doing so. Patient R5 acknowledged her fear of her symptoms being similar to those of her relative who had passed away from such complications and yet this too, had not been able to modify her behaviour into seeking help at an early stage. Patient R4 also displayed poor adherence despite prior advice that had been given to her.

Other models have also suggested that behaviours are influenced by the perceived efficacy of the intervention (Witte & Allen, 2000). Patients at neither site suggest their doctors to have poor knowledge on the management of diabetes. The natural progression from this would then be to act upon the doctors' knowledge and implement behavioural change. However, as discussed above this study demonstrates a difficulty with trust within the relationship which may well influence the translation of this knowledge into behaviour.

By employing a social constructionist view, it once again becomes apparent how past experiences and individual behaviours shape the outcome. Patients admit during their FGDs the importance of doctors' attitudes. These attitudes are seen to underlie the messages that are communicated during the consultation and alter the way in which the messages are interpreted and perceived. It is these perceptions that are able to motivate behavioural change within the patients. It is these interpersonal factors that allow patients at Site 2 to feel respected and cared for as "children" and those at Site 1 become disillusioned and demotivated.

7.4. A social constructionist view of adherence

Adherence is known to be a pivotal factor in the management of a CLD and international literature has focused on the facilitators and barriers to adherence as discussed in Section 2.4.1. However, the role of socio-cultural and interpersonal factors in diabetes adherence has been suggested but not previously studied in detail. As presented in Chapters 2 and 3, diabetes is a disease with complex management options and one that requires commitment from the patient in order to adapt their lifestyle and manage their illness with the goal of preventing further complications and improving health outcomes.

Despite the central role that adherence plays in scientific discourse on diabetes, patients in this study did not tend to pay much attention to their adherence, either within the consultations or in their interviews. There was evidence within the consultations that patients had forgotten medication, not

diarised their testing schedule or tested adequately, had not adhered to an appropriate diabetic diet or engaged in regular physical activity as suggested by their doctor. Despite this, patients did not dwell on the issue of adherence other than one patient who mentioned that when they are insulted by doctors in front of others, she felt that it motivated them to take better control. On the other hand, doctors tended to focus heavily on the issue of adherence. At Site 1, patients were chastised frequently for not adhering to lifestyle changes, regular testing schedules, appointments and medication prescribed. Freimuth and Mettger (1990) also commented on the difference between doctor and patient perceptions with regard to adherence and noted that whilst public behaviour was apathetic and ignorant, doctors took on the onus of correcting errant behaviours. Observed consequences of these differences in perception was a breakdown in the interpersonal relationship, distress for the patient and frustration on the behalf of the doctor. Although DrE stated that one of his main concerns for the consultation was to address "compliance issues", he did not tend to focus negatively on this problem when it was encountered. Instead, patients were able to explain that they had consulted other doctors, had run out of medication and on one occasion a humorous interchange was noted regarding a patient who had missed a previous appointment (consult E16). In contrast, both doctors at Site 1 reported feelings of frustration related to poor adherence leading to a rift in the interpersonal relationship.

This is perhaps the main conflict that occurs between doctors and patients and where relationships tend to break-down. As Ellis (2004) suggests, the explanatory model of disease adopted by many African people is not a biological, scientific or rational model. It does not value a link between lifestyle behaviours and progression of diabetes. Rather, value is placed on more spiritual explanations for disease which may well include punishment for "bad behaviour" or for neglecting one's duties within the community. By acknowledging that patients are perhaps not as concerned with minute dose adjustments in medications and the risk of uncontrolled co-morbid conditions, DrE is able to establish a relationship with his patients whereby they seem to adhere to his instructions out of respect and trust rather than rational thought. When these relationships do not exist (as in consults R1 and R4) no amount of coercion and instruction seem useful. Even within consultations where doctors and patients share a similar cultural background, the impact of mistrust and disrespect are noted to override the adherence behaviours displayed. Thus it emerges that there is more to these behaviours than simply matching socio-cultural demographics and transferring knowledge.

A trusting relationship, or lack thereof, between doctor and patient is seen to influence adherence behaviours in many consultations. Patient R6 indicated that he desired a "stronger" insulin or "one that is more effective" than his current medication indicating a diminished sense of trust in the relationship with his doctor which then influenced how he manipulated his doses by himself. On the other hand, DrE acknowledges that patients do sometimes distort the truth and the frustration that this causes him, but he also displays evidence of having reflected on this and internalised the observation to a point where he accepts the behaviour and is able to relate to his patients within this new constructed reality. Patients at Site 2 indicated on many occasions that their prime concerns were related to pain and discomfort felt which was clinically poorly related to their diabetes. This was their understanding and perception of their condition. By responding to their acute concerns, DrE was able to address these issues and work with the patients to achieve a shared understanding of the problems at hand and ensure adherence.

The problem of adherence within a specific socio-cultural environment was also highlighted in the Lancet study on "Culture and Health" (Napier et al., 2014). The authors concluded that understanding cultural factors influencing health-seeking behaviours and adherence was crucial in order to maximise

health outcomes. They went on to state that treatment would be ineffective if health care was not adequately utilised and treatment not correctly adhered to. Understanding patients' values and beliefs and integrating their cultural understanding with clinical expertise is therefore imperative. It is these beliefs and feelings that when externalised are seen to guide behaviours.

It is clear from the evidence in the consultations and interviews with the patients themselves that their ability to manage their disease relies upon the way in which they perceive their illness. These perceptions develop from an interpretation of the behaviours and actions within the consultation which, in turn, are realised through communication, interpersonal relationships and attention to the socio-cultural context.

7.5. A social constructionist view of disease management

Knowledge on the subject of diabetes has improved dramatically over the last few decades with significant advances in medicines available, importance of risk management and management of potential complications of the disease. However, despite the wealth of literature presented in Chapter 2, we have not been able to adequately translate this knowledge into improved patient adherence. The Euro-OBSTACLE trial (Vermeire et al., 2007) demonstrated that relationships between health care providers and patients may provide the key factor in this regard.

This study has highlighted how meaning is created through a process of externalising people's ideas, beliefs and feelings (epistemology) and then expressing these ideas within a social reality (ontology). Diabetes is a complex disease that requires manipulation of drug dosages, regular testing and interpretation of glucose levels and informed choices in adapting to an appropriate lifestyle. However, these challenges are not insurmountable. Despite poor socio-economic conditions and sometimes even poor literacy, patients have shown that they are able to engage with their doctor in certain circumstances and feel empowered to manage their diabetes. On the other hand, patients who appear educated and in control of other aspects of their lives, are unable to relate to their doctor adequately and become disillusioned and fail at adequately managing their illness.

The patients at Site 2 displayed positive feelings about their disease, reported how their fears with regard to diabetes had been subdued. They mentioned that family members were involved in their care and that they felt supported and cared for. They did not mention any problems relating to work or financial difficulties as a result of their disease. During consultations, these patients were noted to receive treatment for other acute illnesses, have changes in medication carefully explained to them and have issues relating to their life-world discussed and addressed.

The same patients at Site 2 also mentioned, in the FGD, the strong relationship they shared with their doctor and how they felt like his children in the way he cared for them. Such sentiments are not the result of isolated incidents occurring on a single occasion, but rather the result of a feeling built up over time based upon various factors. It is these past experiences that together form the opinion of the patients. Such past encounters were alluded to as patients were greeted by name upon entering the consultation room (consults E1, E13, E14) and others commented on prior encounters that had enabled them to value the services of the doctor (E15).

Patients at Site 1 reported that they felt overwhelmed and stressed. They were aware of the multiple complications of diabetes but reported many obstacles in adhering to their prescribed lifestyle and management advice. They found it difficult to cater or and afford the diet plan suggested to them and a lack of ability to maintain the exercise programs required of them, they expressed problems relating to the financial burden of diabetes and difficulty managing their disease in the workplace. Examples of these problems played out in the consultations as patients found it difficult to adhere to diet and lifestyle changes in consults R1, R3 and R4. The financial burden of diabetes was seen in consult R5 where the patient was unable to afford medication suggested to her. Patient R6 expressed difficulties with his insulin regime whilst working as well as challenges in returning for follow-up appointments due to work commitments.

Although various health care practitioners in the form of a full-time diabetic educational nurse, social workers and dieticians are available to patients, they still feel unsupported. The impact of past encounters may provide some evidence for this. In consult R4, the doctor expressed her frustration with the patient and alluded to previous encounters where similar misunderstandings had occurred. Other power struggles noted during these consultations may contribute to the lack of support felt and poor ability to manage their disease displayed by patients despite the multi-disciplinary team available.

The socio-cultural context of a patient is extremely important in diabetes management as lifestyle behaviours are entrenched within these beliefs. Cultures are not stereotyped, nor can behaviours be checked off on a list of expected processes and techniques. This study shows how patients and doctors can co-exist within diverse socio-cultural realms and still engage meaningfully by demonstrating attitudes of respect, trust and empathy for one another. By focusing attention on the behaviours and how these feelings and ideas are expressed and re-interpreted, a unique reality is created where participants feel comfortable to interact and disease management can be optimised.

7.6 A new model of communication in consultations

The model depicted in Figure 7.1 provides a broad overview of how reality is socially constructed. The sections above begin to give meaning to how this can be related to doctor-patient communication within a consultation. By amalgamating the previous model by Candlin and Roger (2013) depicted in Figure 3.1 as well as the model by Berger and Luckman (1966) and inincorporating data from this study, Figure 7.2 now provides an integrated description of how these consultations are played out.

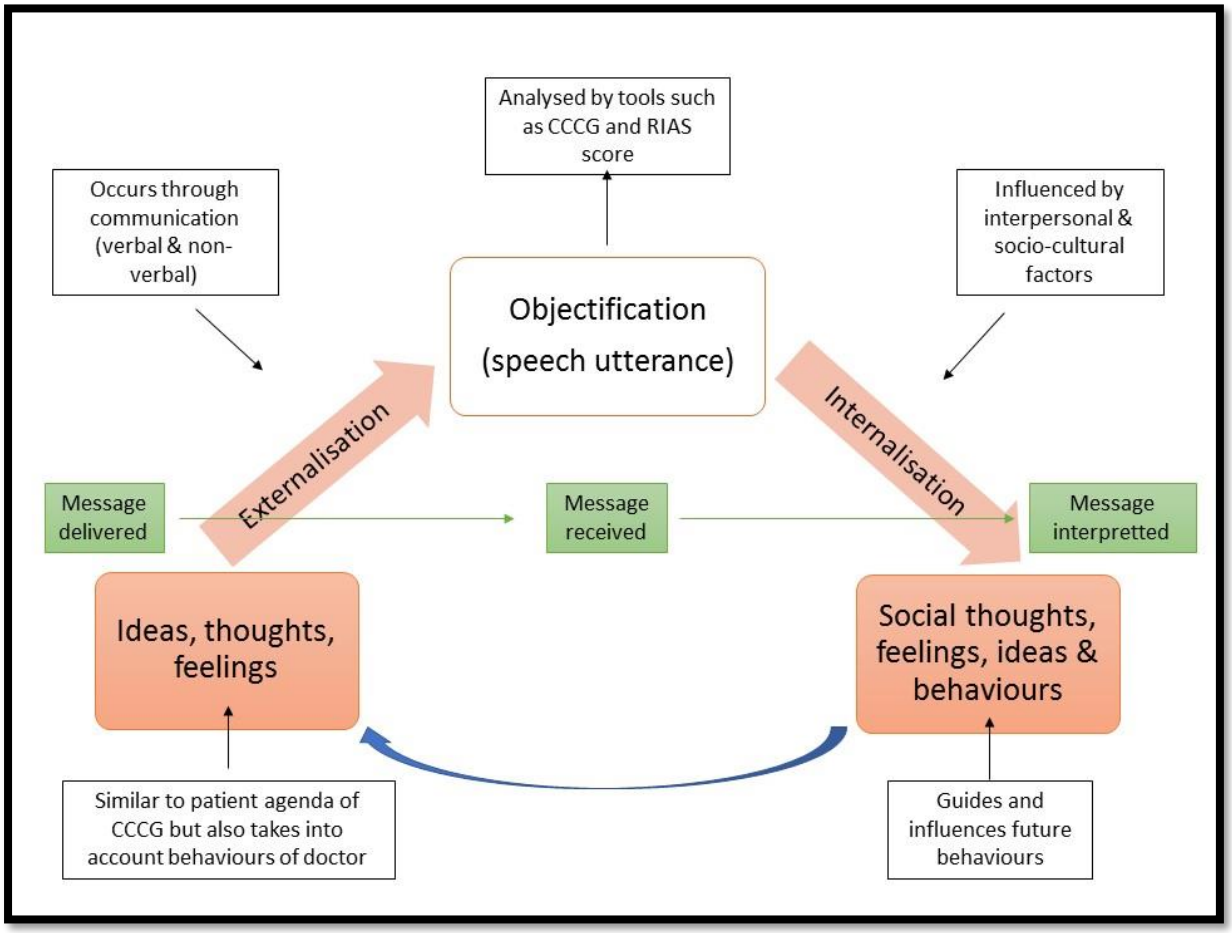

Figure 7.2 Combined model describing the construction of reality via doctor-patient communication within the consultation.

The original transmission of the message shown by Candlin and Roger (2013) is shown in green in the figure above. By super-imposing the social constructionist model in orange, it highlights how these thoughts, ideas and feelings will influence the delivery of the message. The CCCG does pay attention to the patient agenda and include these attitudes as crucial to the communication process. However, the results from this study strongly show how such attitudes of the doctor also influence the message that the doctor delivers. This study also highlights the importance of both verbal and non-verbal communication in the process of externalisation of the message.

Traditional methods of analysing communication have also tended to stop at the point of the objectified message. They pay attention to the communication techniques and some even go as far as to measure these on a checklist or score chart. By comparing this process to the Candlin and Rogers model, it can be seen how this is only half-way through the process. It is at this stage that the message has been received but not yet interpreted.

The following process of internalisation is perhaps the aspect that this study highlights most eloquently through the social constructionist viewpoint it adopts. The process of interpreting the message relies not only of the actual object or speech utterance but also on past experiences, social-cultural and inter-personal factors. By analysing the manner in which the consultation is communicated as well as the content thereof, relating these observations to the outcome of the consultation and then comparing to the feelings and attitudes of the participants themselves, this study provides sound evidence to support the multi-factorial way in which communication within the consultation should be considered.

It is these multitude of factors that blend together in a unique way, that ultimately form the ideas, thoughts and feelings on a social level. It is in this way that we observe that rural, non-English speaking, poorly educated patients can defy social norms and engage in a meaningful consultation with a doctor of higher socio-economic status; that they can find satisfaction in short consultations where the doctor takes on a paternalistic role; that they can respect and adhere to advice despite their own socio-economic challenges. They have created their own social reality. In the same way, it explains how seemingly similar demographic factors between doctor and patient may not result in a shared reality.

For the sake of simplicity, only a unidirectional message is depicted in this model however, the blue arrow at the bottom of the diagram indicates how the outcome of the first message will then influence the reciprocal message that follows. These experiences will form part of the "past" that will influence future interactions as well as shape the feelings, thoughts and ideas of the participants as described in the sections above.

7.7 Concluding remarks

This chapter has situated the study within its own unique context. Through the use of a social constructionist approach, it has shown the development of the doctor-patient relationship and the central role that communication (both verbal and non-verbal) plays in this relationship. It has shown how the feelings, ideas and beliefs of both doctor and patient, expressed through communication, are externalised and begin to form the reality of the consultation. However, this study shows that communication goes beyond a checklist approach of techniques and skills.

It is through the expression of these attitudes and the external context of the socio-cultural environment coupled with the interpersonal relationship over time that will determine how the reality is interpreted and perceived. The complexity of diabetes management demands an understanding not only of the scientific facts of the disease but also of the life world of the participants and thus it becomes essential to acknowledge the interplay of these factors in ultimately guiding and motivating behaviours.

This study has attempted to demonstrate important benefits for both the management of diabetes as a chronic disease and the art of communication in building a therapeutic relationship. The final chapter of this thesis will concentrate on the implications of these findings not only for practical clinical purposes but also for further research and ways in which relevant skills can be applied in medical education.

CHAPTER 8

This study has highlighted the everyday realities of managing diabetes within the public health system of South Africa. It has demonstrated the role of doctor-patient interaction and the communication that occurs between them but more importantly, the value of attitudes in determining behaviours and giving meaning to the interaction that occurs. This study has also brought diabetes management into context. Various barriers and facilitators have been postulated but the differences both within and between sites noted in this study suggest that complex contextual influences may well guide the eventual outcomes of these interactions.

Secondly, the findings from this study have important implications within the medical community for how diabetes as a CLD is perceived and managed. They also provide a valuable contribution to the study of health communication and support the importance of socio-cultural influences on communication styles as well as the integration and evaluation of imported tools. The results presented and discussed in the previous chapters suggest strong directions for practice as well as for medical education and these will be discussed in more detail in this final chapter.

Finally, this research is able to offer a critical perspective on the way in which research in health communication and diabetes management has been approached in the past. The value of the methodology and theoretical perspective chosen in this study is also reflected upon indicating potential areas for future research and recommendations that can continue to bring the science and the art of medicine together.

8.1 Implications for Clinical Practice

The natural history of chronic disease implies lifelong management and thus places at the centre of this journey the relationship between doctor and patient. As a progressive disease, the decline in clinical condition will also rely on the therapeutic relationship to support and guide the patient in achieving the best possible outcome. The nature of diabetes requires a complex interaction of best medical practice in combination with management goals that are achievable and compatible with the patients' lifestyle. This study used a constructionist perspective to view the interactions that took place between doctors and patients. As described in Chapter 2, extensive research has been conducted identifying various barriers and facilitators to the management of diabetes. By exploring the interactions with these factors in mind, it now becomes evident that organisational routines and individual behaviours may differ from standardised guidelines and methods. It also highlighted the complexities of the challenges created by the interplay of multiple socio-cultural factors on diabetes management. The recent Lancet Commission Report on "Culture and Health" by Napier et al. (2014) identified and highlighted the significance of paying attention to these socio-cultural factors and the notion of biological and social well-being in order to improve health outcomes.

The aims of this study as detailed in Chapter 4 were to describe the interpersonal relationship between doctors and patients and in particular to explore the communication techniques and socio-cultural

factors at play. The findings of the study highlighted, in particular, the importance of the art of medicine as described in Section 3.2.3.1. - the important role that attitudes played in forming participants' perceptions which in turn governed their behaviour and ultimately the way in which the diabetes was managed. The display of empathy for patients' physical and psychological well-being, the building of trust and respect for cultural values and perceptions were all shown to have a positive influence on the outcomes of the interaction. Such attitudes have been described as the precursors towards developing interpersonal skills in performing the art of medicine (Dyche, 2007) and have emerged as a key finding in this study.

One of the principles of family medicine is the importance of patient-centredness (McWhinney, 1997). This study has shown how the agenda of the doctor to achieve good therapeutic outcomes is not possible to achieve without integrating the patients' agenda into the consultation by demonstrating awareness of the patients' life-world and individual concerns. It also highlighted the importance of recognising the life-world of the doctor and the manner in which the ideas, feelings and beliefs of the doctor will also contribute to the development of the interpersonal relationship. This requires attention to effective communication between doctor and patient both verbally and non-verbally in order for a transfer of information to occur. In this manner, the power imbalance between doctors and patients can also be managed - patients can be empowered to take control over their disease and manage it more appropriately and the doctors' agenda to achieve good outcomes satisfied.

Another key feature of this study was the attention drawn to language issues within communication. The choice of language in which consultations was conducted in this study had far-reaching effects in terms of the display of respect, the balance of power as well as contributing to time and resource efficiency and promoting better patient understanding. The improper use of interpreters was also shown to contribute negatively towards developing a therapeutic relationship and emphasised the conclusions of Penn and Watermeyer (2014) to pay attention to negotiating the language of the consultation in order to demonstrate respect and facilitate mutual understanding.

The understanding and influence of culture emerged as a significant component of the doctor-patient relationship. The report by Napier et al. (2014) concluded that culture should become central to care practices and not ignored in health care. By ignoring cultural affiliations, they explained how "hidden aspects of social inequality may be missed". They also cautioned against promoting cultural competence as this may imply and even strengthen stereotypes but rather how sensitivity to culture as a dynamic entity should be considered. This study has demonstrated the adaptability of social and cultural contexts and has confirmed that they are indeed dynamic do not exist in isolation. A checklist approach towards cultural preferences has been shown not to be of value as people may present themselves differently in different situations. In addition, people may be able to defy the boundaries of their culture should the need arise. Whilst certain behaviours in this data seem to work, they may not be generalisable to other situations.

Cultural competence refers to the ability of individuals or organisations to function effectively within the context of the cultural beliefs, behaviours and needs of the people and communities with whom they interact (Perloff et al., 2006). However, cultural competence is not an outcome but rather a process where doctors can gain knowledge about other cultures, demonstrate their skills in interactions and improve their attitude towards cultural stereotypes. Perloff et al. (2006) suggested it is difficult to show a direct link between cultural competence and improved health outcomes but a

study like this that concentrates on interactions, may be extremely valuable in understanding the influence of attention to cultural factors in health outcomes.

More recently the concept of cultural competency has been questioned as it implies that a person is fully proficient in their understanding of that culture (Kumagai, 2009). The term "cultural sensitivity" is preferred to refer to a desire to work towards a shared tolerance and respect for each other. Kumagai and Lypson (2009) suggested that "multicultural education should go beyond just the acquisition of knowledge, skills and attitude but should foster a critical awareness of the self, of others and the world and a commitment to addressing issues of societal relevance in health care". This would demand a conscious reflection on the environment and the people with whom interactions are shared. By reflecting upon the outcomes of these situations, a deeper sense of cultural understanding may be reached. Evidence of such reflection and willingness to understand the cultural life-world of the patients may be able to govern the attitudes displayed as well. The social constructionist model depicted in Figure 7.2 would explain this by highlighting the changing nature of the context in which interactions occur and the constant need to internalise and re-create social norms.

Another concept that becomes relevant from these findings is the notion of "cultural incompetence" or lack of internalisation of observed behaviours. Just as some interactions demonstrate sensitivity towards the beliefs and customs of others or perhaps even competence in these interactions, other examples demonstrate a distinct lack of competence. As Swartz (2007) describes, these feelings may stem from a feeling of unease in relating to others and the feeling that if one shared a similar demographic or ethnicity that the situation would be easier. He quotes South African examples where health care practitioners who share such qualities with their patients may also experience unease in relating to patients who on the surface appear similar to them but social practices reveal a more significant diversity. This is a phenomenon observed previously by the author and reflected in the way in which doctors at Site 1 relate to those patients ostensibly similar to themselves (E.g. R2, R3, R5 and R6) and yet who share very different beliefs and practices. As emphasised previously, doctors become enculturated into a different world – that of scientific medicine – and probably need to acknowledge that in almost all encounters will feel dissimilar from their patients. And yet, common bonds of humanity that govern attitudes of respect and empathy are universal if they are acknowledged.

These reflections begin to highlight an important aspect of cross-cultural interactions. As each individual exists within their own unique context with individual beliefs and perceptions, perhaps all consultations may be considered to be cross-cultural in one way or another. Language preferences, beliefs and cultural practices all have important meaning in health care interactions but should not be stereotypically linked to any specific group of people. This study has demonstrated how individuals may show strong affiliation to a particular group and yet be able to transcend the confines of the groups should the circumstances dictate as such. This may enhance the value of highlighting attitudes of curiosity, empathy and respect in relating to other individuals and the positive effect that this has on the interaction and on communication.

In the building of therapeutic relationships, the influence of past outcomes is seen to influence how future behaviours are perceived and interpreted. The implication for practice is that relationships are formed over time and especially within chronic disease management, the relationship that develops between doctors and patients has a significant impact on outcomes. Other factors influencing cultural perceptions are also noted in the way in which patients are able to defy traditional cultural stereotypes such as avoidance of eye contact or direct responses to a person in authority depending on the

circumstances. These factors all indicate the dynamic nature of cultural perceptions and highlight the sensitivity required in order to pay due attention to including them within the interactions.

All these factors contribute to the way in which the interpersonal relationship develops and show important implications for how patients' perceptions are formed and how these, in turn, are able to guide and modify behaviours. They also demonstrate a profound impact on views of adherence and how these views ultimately influence the management of diabetes.

8.2 Implications for Medical Education.

As indicated above, this study provides many challenges towards current clinical practice. It also therefore is able to suggest adaptations to the way in which clinical practice is taught. Firstly, it emphasises the need to pay attention to the teaching of knowledge, skills and attitudes in addition to the basic checklist structure of conducting a consultation. Secondly, it provides important lessons for how communication and language teaching should be considered as social constructs within a specific context. And finally, it draws attention to the value of constant reflection and evaluation both in research, teaching and clinical practice that allows a critical perspective on what works and what doesn't.

8.2.1 Teaching knowledge, skills and attitudes

One of the purposes of the consultation as described in Chapter 3 is the transfer of information between doctors and patients. It has been assumed that patients have desires and beliefs regarding their health care and doctors need information in order to treat them. Napier et al. (2014) argue that it is incorrect to assume that doctors hold all the knowledge and patients make the comment that the assumption that doctors have knowledge and patients have beliefs and it is these beliefs that influence and "corrupt" medical knowledge when management plans are not adhered to. Rather patients and doctors both have knowledge and beliefs and these perceptions have a combined effect on how messages are interpreted and behaviours result. Communication skills can be taught. Teaching and assessment tools have been developed and there is now greater emphasis than previously on combining health communication research into medical education. There is a growing body of researchers and educators internationally who are able to share best practices and publish in the field (King & Hoppe, 2013). However, training should not lose sight of the need to encourage positive attitudes rather than purely a list of skills and attainment of knowledge.

8.2.2. Integrating communication and language teaching

Traditionally, medical education has been housed in tertiary hospitals with some training taking place at regional level. Only very recently, has medical education been diverted to district and rural settings. The nature of tertiary hospitals governs how graduates perceive diseases within their discipline-specific silos and fail to manage the patient at the centre. The vast majority of doctors are required in district hospitals where patients are managed at a primary care level. This dictates that doctors should be competent in working within a multi-disciplinary team, familiar with resource-limited settings and able to engage with a patient within the patient's own community. By encouraging and supporting

medical education that occurs primarily at district health level, practitioners may be made more aware of the patients' needs, the environment in which the patient exists and the necessity to interact with the patient in a shared space.

Communication teaching is no longer optional within the medical curriculum. Furthermore, it has been agreed that this teaching should be integrated within the clinical teaching of students (Napier et al., 2014). Internationally, medical education has adopted a competency model where the role of a communicator is valued equally with other competencies in forming the medical expert. South African universities have adopted this model and ensured its relevance within the context by modifying the CanMEDS model for local practice. Within the UKZN, teaching communication skills along with clinical skills has been integrated into the MBChB curriculum since 2010. The CanMEDS model depicted in Figure 3.2 initially looks attractive as an integration of competencies which can be measured. However, as this study demonstrates, learning occurs mainly through cultural exchange and internalisation of past experiences (be these conscious or unconscious). Just as the scenarios analysed in this study have encouraged the researcher to reflect on observed behaviours, medical students could similarly reflect on their own skills and those of their peers through exposure, reflection and feedback.

Developing cultural sensitivity and reflexivity would shape future attitudes and behaviours instead of strengthening stereotypical behaviours learnt in the classroom. By teaching purely competencies and striving for absolute knowledge in all circumstances, practitioners and students may find that they neglect the ability to interact with every person on a unique level. This is acutely demonstrated in this study where broad conclusions are difficult to make due to the varied nature of each individual interaction. The intuition of experienced clinicians and evidence of continued reflection of care is highlighted in this study as a vital component to ensuring productive and rewarding interactions.

Exposure for students to "other cultures" as demonstrated by Prose, Diab & Matthews (2013); creating positive learning environments during rural placements for students (Diab, McNeill & Ross, 2014) and using alternative teaching tools to enhance learning and language and cultural learning (Diab, Matthews & Gokool, 2016) all form part of the past experience of the author and have assisted in promoting internalisation of observed behaviours. Such activities and programs should be promoted in order to support the development of cultural sensitivity and contextual learning for students. Reflecting upon these experiences allows people to make meaning of the experience and transform behaviours. It also demonstrates respect for the other and an appreciation that each encounter will be different (Dyche, 2007). Teaching time and space is an ongoing challenge in medical education. However, Kumagai and Naidu (2014) argue that specific time does not need to be allotted to such reflection. They suggest that it involves an ongoing process over time. Just as cultural competence is not a fixed competency that can be taught and absolute proficiency gained, so too is reflection a skill that develops over time. Stemming from attitudes of respect, empathy and curiosity for others, reflection involves learning more about the patients with whom one is interacting.

8.2.3. Reflection and evaluation

Initially, the researcher supported the use of a patient-centered model such as the CCCG. However, in viewing interactions in this study, it becomes clear that the solution is far deeper than simply translating the model into a different socio-cultural context. In reflecting on her own past experiences and attitudes and how these were externalised her early days as a junior doctor at a rural hospital, the

researcher creates meaning for herself justifying the rationale that underlies this thesis. It is not a simple observation of behaviours but the internalisation and understanding of these behaviours within their context that will guide future interactions.

By reflecting upon their experiences, medical students and practitioners can construct their own understanding of the world in which they live and constantly create new models and ways of thinking. Communication within a multi-lingual and multi-cultural society is relevant to the South African medical student. The timing of this learning is perhaps debateable and not a specific aim of this study. A certain amount of cognitive development is required in order to reflect upon one's experience. Undergraduate students may benefit from learning basic communication skills first and then being allowed to develop higher order skills of cross-cultural communication once they have been immersed fully as professionals within the professional environment and seen the relevance of these skills first hand. However, the basic skills of reflection and self-awareness can be introduced at an undergraduate level so as to provide building blocks for future growth. Various methods of supporting reflective practice have been suggested and may be relevant in medical education but may require further evaluation within the context.

Critical incidents occur throughout a health professional's career. These are events that occur from which reflection and exploration of the event can occur. This process has been described to induce a conscious realisation of the events surrounding the incident from which learning and practice style can be influenced (Morell, Sharp & Crandall, 2002). Various critical incidents have been highlighted in this study that could well form a basis for such reflection. By training medical students to identify such interactions, reflect upon outcomes and modify future behaviours, medical education may shift to a more socially-constructed paradigm that is relevant within a changing society.

Narrative reflective practice is an approach that has been used in medical education (Clandinin, Cave & Cave, 2011; Kumagai, 2008). It explores the way people tell stories and through this process of story-telling, encourages listening and critical refelction. The context of the story and the underlying truth of the story can then be understood and explored (Launer, 2002). The power of such practice is noted in the extract of the metaphoric story told by the patient at Site 2 of her experience with regard to seeking medical care for vaginal thrush. The story that she told can have a powerful influence for those listening in the group and the way in which they relate to and remember the incident described. If such a story were able to be used by doctors to reflect on her experience, they may be able to understand the sense of relief she felt in having her problems attended to as well as developing an understanding of the cultural context and background from where she came.

Collaborative reflection is a technique that can be used to apply an educator's practical experience to teaching of cultural competency to students (Diab, Naidu, Gaede & Prose, 2013). These narratives are complex in that they incorporate various elements and learning opportunities into the narrative. They depict real, lived experiences of personal encounters and are rich sources of learning in the detail of ethical and clinical content contained. They also have the potential to be understood and interpreted in different ways depending on the audience and learning objectives. Collaborative reflection also allows for the examination of political, moral, cultural and social aspects of the narratives and how they can be developed in clinical practice. Many experienced clinicians familiar with cross-cultural consultations, may be able to relate to the sentiments of DrE and how he has adapted his consultation style to suit the environment in which he works. They may also identify with his use of the patient's home language in creating rapport and in deconstructing barriers of power. His reflections on the way

in which patients sometimes give information out of respect rather than purely truth may also create a deep discussion amongst clinicians as to how this phenomenon can be managed.

Fundamental to the development of an enabling relationship is the process of self-reflection. In order to be able to respect diversity and adopt a practice of reflexivity, one needs to understand one's own personal background (Helman, 2007). This ability to be self-aware enables doctors to understand their own frustrations, make the necessary adaptations and better relate to their patients. Graduates cannot be adequately trained for all circumstances and environments but by being self-aware they can respond to the changing environment and adapt in a manner that encourages the building of stronger therapeutic relationships. Contexts may change and adapt over time and thus continual reflection upon one's own practice is critical in understanding patient behaviour (Boutin-Foster, Foster & Konopasek, 2008; Clandinin et al., 2011). In addition, if it is acknowledged that environments and people's behaviours can change, it is important to value the co-construction of interactions that relies on a sound understanding of all participants.

8.3 Implications of findings for further research

The value of qualitative research lies in the ability to explore in detail a field about which little is known and to provide important contextual data to assist in explaining social phenomena (Power, 1998). Previous literature on adherence and management of diabetes had failed to explain patient behaviours adequately. Rather than looking for direct associations in the data, the qualitative approach used in this study allowed for perceptions and experiences of the participants to be taken into account. Furthermore, it allowed for the emersion of findings to occur *de novo* and for these findings to be interrogated in more detail. The perspective of the role of the therapeutic relationship in the management of diabetes is able to be explored in detail this methodology and theoretical framework. The contextual data obtained through ethnographic observation and the incorporation of the socio-cultural environment yield a new perspective on the subject of adherence and diabetes management.

A feature of qualitative research is that it combines various materials which can be used in combination to compare and contrast findings. Each of these materials observes the data from a slightly different perspective and the combination of perspectives results in strong evidence to support the observations. In this study, data from the consultations were contrasted with the perspective of the doctors and patients interviewed individually and by means of FGDs. The method of transcribing the audio-recordings of the consultations and the addition of non-verbal data from video-recordings allowed for a unique perspective in interpreting the data. Also, behaviours that were observed during consultations could be confirmed by participants and others in the interviews. This triangulation of data contributed to the powerful data set where interactions were observed within a specific context and validated the use of multiple methodologies.

As mentioned in the beginning of this study, the theory of social constructionism explains how every situation is unique. This should not detract from the messages that may be extrapolated from the conclusions drawn in the study. Whilst various linguistic techniques and specific behaviours may not be relevant in all circumstances, there may certainly be general trends that can be observed and

lessons learnt. By reflecting upon these lessons and experiences, more culturally-relevant research may be promoted and changed practices developed.

The theoretical framework used in this research has provided a different paradigm from scientific and clinical research in the field of diabetes to explain human behaviour and its influence on clinical outcomes. The value of a theoretical perspective that highlights the interaction between participants as it was experienced within the natural environment has also proved important in understanding the complex manner in which these interactions are perceived and interpreted. The insight gained by analysing the interactions also provides a unique perspective in understanding the various factors that influence behaviour. Non-verbal and verbal communication is highlighted as well as the patterns of interaction observed as they occur naturally within the consultations. These are all dynamic factors that will differ in each individual encounter. Whilst general observations such as these are useful in identifying potential influences they cannot accurately explain all behaviours in all situations. They have also indicated that a behavioural cause and effect is not always possible. Future research in the field should remain cognisant of the need to identify and explain a sound theoretical perspective in order that the findings of the research may be correctly interpreted.

With the focus in medical education moving towards developing competencies rather than purely focussing on clinical knowledge and skills, it is hoped that more medical research will be diverted towards exploring the interplay amongst the various competencies. This research should focus on the nuances that exist in different socio-cultural contexts as well as in developing local best practices from international guidelines. There are few South African studies that examine the unique contextual factors that surround the doctor-patient relationship in chronic disease management and the value they have in constructing the contextual environment. This study was designed to explore the basic interactions as they occurred and develop an understanding into how future research may be conducted. It is suggested that various elements of the relationship highlighted in this study may be further investigated to develop stronger links to specific health outcomes.

The value of an insider who is able to understand the biomedical context of clinical interactions has also been a feature of this study. With knowledge and experience in the management of diabetes as well as clinical experience in the public health care system, the author is keenly aware of the challenges described. Research in health communication has been predominated by people whose background is external to that of clinical medicine (Adolphs et al., 2004). Those familiar with the underlying challenges and nuances of clinical management are strongly positioned to conduct research in the field where theoretical findings and clinical practice may be better integrated.

8.4 Reflections of the author

One of the benefits of qualitative research is that it situates the researcher or observer within the world being studied and consists of a multitude of practices and interpretations within this environment (Denzin & Lincoln, 2005). This has allowed for the researcher to utilise her own unique knowledge and experience in the interpretation of the data. (Stein & Mankowski, 2004) discuss this “Act of Knowing” as an important part in the research process whereby personal interpretations are used to “give voice” to the experiences and perceptions of the participants. The position of the

researcher has already been stated but it is as a result of this study that anecdotal observations over 15 years' experience are able to be reflected upon.

At the same time, the researcher has attempted to make her position explicit in all areas so that the data may be understood within the context. She has ensured that as far as possible, where claims and inferences are made, that these are substantiated by multiple sources of data. Where such substantiations are not possible, the researcher discussed potential meanings with other research colleagues in order to gain a broader perspective and ensure that her individual biases were as justified as they could be. The researcher was also aware of these potential biases and thus chose to examine outlying findings as well as generalisable observations in order to enhance trustworthiness of the data.

This study has highlighted the way in which behaviours may be explained by perceptions and underlying beliefs and influenced by socio-cultural environments and interpersonal relationships. In addition to understanding the context of patients, it has become evident that health care providers should be encouraged to reflect upon and be aware of their own cultures and beliefs. Self-reflection is perhaps one of the most challenging tasks but essential in order to manage interactions with others. The dynamic nature of these affiliations and the way in which different circumstances may guide the way in which people are able to or choose to present themselves is also emphasised. This ability to self-reflect also stimulates attitudes of curiosity and is able to promote respect for others. Curiosity is essential to innovation and this is no more evident than in this thesis itself. The initial motivation to embark upon the research was the result of years of clinical practice and observation that sparked an interest in what was observed. Throughout the process of this study, the author has been challenged to interrogate the findings, substantiate observations and provide evidence for the conclusions drawn. Through this careful approach to analysing the findings, it is hoped that elements highlighted in the study may provide best practice evidence that may be able to substantiate anecdotal experience of the researcher and guide future teaching and clinical practice.

One of the major difficulties in this study has been in the transition from a positivist framework to observing the data from a different perspective. It was always evident to the author that a simple list of barriers and facilitators to adherence was not relevant. Experience had shown that these factors were not mutually exclusive and that very often did not provide substantial explanations for behaviours. Experience in rural practice had also suggested the importance of being able to identify with patients in order to gain their trust but the value of this was not firmly established. For these reasons a new perspective was required in order to understand the way in which the interactions played out and how they influenced behaviours. In addition, the attention to minute details within the interaction has also demonstrated how these micro-details may influence the outcome considerably. Immersion into the world of qualitative research became a necessity and a great deal of questioning and grappling with new paradigms and beliefs required. Perhaps this initial unfamiliarity with such concepts has strengthened the study in that they have been thoroughly explained and substantiated.

Just as patients are able to stimulate doctors to seek new management options and challenge their knowledge and beliefs, so too are students able to stimulate researchers. Working at the UKZN and interacting with students from diverse backgrounds stimulated the author to critically examine the way in which communication teaching and medical education in general was being taught. The author's own experience at university was quite different and was largely that of a traditional biomedical approach to practice with little emphasis on previously so-called "soft skills" such as

communication and collaboration. It became evident during the process of this research that traditional models of education have fallen short and that these skills need to be integrated into clinical practice. At the same time, students also complained about the "Eurocentricity" of the communication guides they were being taught. During tutorials and clinical observations, the author began to use narratives from her own practice and experience to inform, substantiate and discuss with the students improved ways of approaching patients within our local context. Students' interest was heightened by discussions around practices and beliefs with which they were able to identify. In a similar manner, the excerpts from this study may also be used in clinical teaching and reflected upon. The parallels between students' interest in learning something relevant to them and patients identifying with a doctor who was able to engage in a much more relevant manner became obvious.

Whilst completing this research, the author has also been responsible for administering a new module in the final year MBChB curriculum at UKZN which involves all students being placed at rural hospitals for a period of six weeks. In designing the curriculum, the author discussed with colleagues the value of emphasising attitudes in addition to pure skills and knowledge teaching as this study has demonstrated. The contextual learning also contributed to the way in which students were able to be exposed to diverse socio-cultural environments and specific assignments were created to encourage conscious reflection on these factors. With the benefit of designing a new module and the imperative from the HPCSA to consider new competency-based models of teaching, these objectives were included in the module. As with any new challenge, students found the ethos of the module difficult to relate to but interim feedback has shown tremendous positivity especially in the way students are able to relate to their patients. Such developments in medical education may now become substantiated by best practice evidence.

South Africa has a challenge of people from multiple socio-cultural backgrounds but it also has the advantage of being able to celebrate that diversity. It has been suggested that governments are unwilling to prioritise cultural activities and the heritage of its people (Napier et al., 2014) yet as South Africans this is one of our strengths. The photograph below was posted by DrE on a social media website to commemorate Heritage Day in South Africa in September 2015. It eloquently describes the pride that people have in their heritage and the way in which diverse cultures can be embraced.

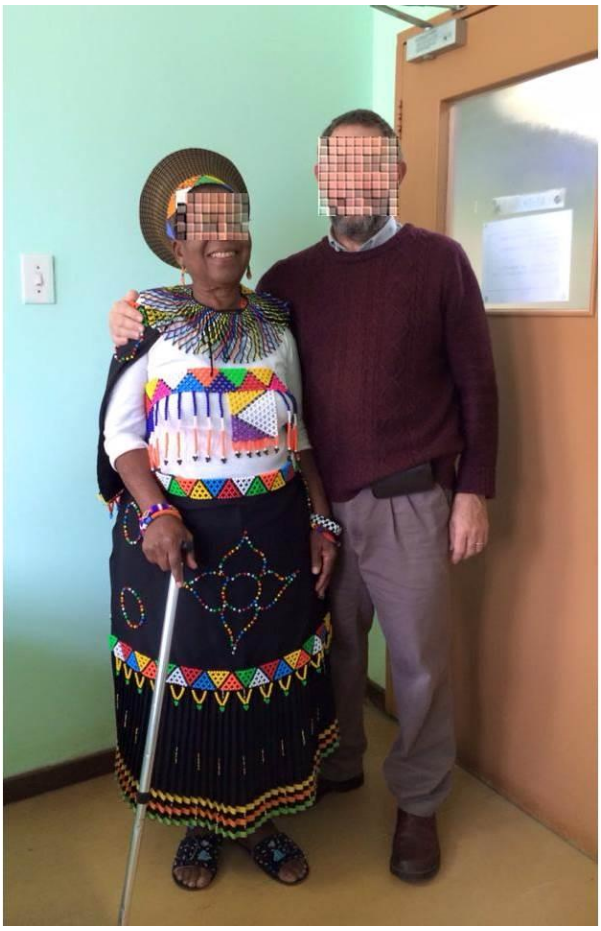

Figure 8.1 Celebrating Heritage Day (photograph used with permission from DrE)

8.5 Limitations

It is acknowledged that the sample size in this study was relatively small in comparison to other major studies particularly in the field of diabetes management. The intention was not to make generalisations but rather to explore a unique way of viewing the challenges provided in managing diabetes. Certainly, the findings may well be generalised to other CLD management such as hypertension, chronic pulmonary disease or even HIV. However, specific nuances of these diseases may result in slightly different findings. The findings may certainly be replicable within other similar socio-cultural settings in South Africa. Similar socio-cultural settings may also be found in other developing world contexts where professional medical staff does not share the same culture or social background as their patents. It is possible that there may be international relevance with a study of this nature as national boundaries no longer are synonymous with cultural and language preferences and the international migration of people and communities ensures that there is always the possibility for interactions across language, cultural and social divides.

Thus the intent of this study is not to extrapolate findings to the general population but rather to understand a phenomenon and gain insight into a specific finding. The theoretical framework of social

constructionism utilised in this study also views reality as being subjective and experiential. In other words, findings described may well be constructed in a different way by another person at another time. The attention paid to describing the theoretical perspective and methodology hopes to contribute to the ease of transferability of the data for application in other contexts.

Another limitation of the study may be in the time lines of the data collection. As explained in Chapter 4, interviews with doctors took place 12 months after the initial data collection and the discussion did not focus specifically on the content of the observed consultations but rather on general observations. This was guided by the sensitivity of the researcher towards her position as an insider and outsider in the study. As described before, it might be valuable in future research and practice for doctors to observe and reflect on their own behaviours and practice.

A challenge in this study was the analysis of interaction not naturally occurring in English. Initial attempts to analyse the translated data was difficult as sentence construction and grammar between isiZulu and English differ and meaning was lost in the process. Thus where specific analysis has focused on the components of communication, these elements have been analysed in their naturally occurring form with translations provided beneath. A similar approach was used previously when analysing data from mediated interviews (Friedland & Penn, 2003).

The implications for medical education that are presented in this study are not directly sourced from the data. The data in this study focuses on the need to focus on the underlying attitude of clinicians in enhancing communication with their patients. This includes the improvement of cultural sensitivity necessary in cross-cultural interactions. During the course of this PhD study the researcher was employed as a staff member at the UKZN and was teaching communication to the medical students (Diab, Matthews & Gokool, 2016) as well as supervising and co-ordinating rural placements for clinical students (Diab, McNeill & Ross, 2014). The suggestions put forward in this chapter related to medical education are based upon the researcher's practical experience (Prose, Diab & Matthews, 2013) and additional research in the field of communication (Matthews and Diab, 2016) and medical education (Diab, Flack, Mabuza & Reid, 2012; Diab & Flack, 2013; Naidu, Irlam & Diab, 2013; Diab, Flack, Mabuza & Moolman, 2015). The researcher has also used her own experience in reflection during this period as well as the practice of colleagues in the field to enhance and validate these suggestions (Diab, Naidu et al, 2013).

8.6 Concluding remarks

Diabetes is a complex CLD that requires sound medical knowledge as well as attention to individual differences in order to improve management and health outcomes. With the prevalence of diabetes and other chronic illnesses rising, emphasis has been placed on risk factor reduction, health promotion and improved management of the disease. Scientific advances have contributed significantly to the therapeutic options available as well as the knowledge of health care professionals in establishing management plans and early detection of complications. A great deal of focus has been on promoting adherence, ensuring best practice guidelines are achieved in order to promote risk factor reduction and in managing complications. Barriers and facilitators towards adherence have been investigated which have identified areas that require attention. Chronic disease management in general requires a sound therapeutic relationship to be formed in order to achieve good outcomes but the intricacies of

diabetes management lend the disease to a more thorough investigation in this regard. Previous research has alluded to the impact of the doctor-patient relationship in chronic disease management and yet very little has been published on the nature of either this relationship or its impact on health outcomes. The aims of this study included looking more deeply at the role of the interpersonal relationship in diabetes management within a multi-cultural society and the contextual factors that determined the influence on management outcomes.

However, this study has shown the importance of communication and interpersonal interactions in managing diabetes. The study has revealed the importance of one's underlying attitude that pervades verbal and non-verbal communication and how these attitudes are the foundation blocks for the development of a therapeutic relationship. Communication across cultures is nuanced, dynamic and complex. Checklist approaches to cross-cultural interactions stereotype characters and do not allow for other contextual factors and environmental influences to be taken into account. This study proves how cultural stereotypes are eradicated in the individual relationships formed. The findings show how failing to acknowledge these contextual factors including past experiences, can limit the interpretation of the interaction. The CCCG was founded in a developed world context where the primary language of instruction is English and the predominant culture following a Western model of practice. Whilst the guide promotes core values such as relationship-building and patient centeredness to achieve goals of mutual decision making, the guide was previously untested outside of the socio-cultural domain in which it was developed. By using elements of CA techniques in combination with the social constructionism framework, this study was able to reveal how certain practices might be appropriate within different socio-cultural environments whilst others did not have the same desired effect. Thus supporting the dynamic interplay of all these factors.

South Africa has a unique socio-cultural environment of its own. It has a unique socio-political history and unique languages. The health care system is a combination of developed and developing world practice and the doctors trained originating from diverse socio-cultural and linguistic backgrounds. Patients too have individual backgrounds and life-worlds often unique from that anywhere else. Despite this, a strength of this study is in the underlying theoretical framework that acknowledges these unique situations and different environments and seeks relevance in the building of relationships throughout a changing landscape. It is for this reason that the findings of this study may be relevant in other contexts. In addition, the underlying emphasis on fostering positive attitudes in interpersonal relationships and the impact this has ultimately on disease management is universal.

Medical education is undergoing a transitional phase where emphasis is being placed on a range of competencies that graduates should attain with communication skills being placed alongside those of patient advocacy, scholarship and leadership, amongst others. This study may offer important guidance for how existing tools may be incorporated into medical education as well as clinical practice with an emphasis on reflection and internalisation of observed behaviours.

The unique methodology used in this study in the field of diabetes may be replicated in future research to further investigate the role of communication in diabetes management. The ultimate contribution of this study lies not only in the combination of powerful data sets and the sound theoretical framework used but also the exploration of the relationship of communication processes in diabetes management which will hopefully enhance the understanding and care we can offer to our patients through clinical practice and in the training of new medical graduates.

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APPENDIX A: DESCRIPTION OF PILOT STUDY

The aim of the pilot study was to explore the experience of patients with type 2 diabetes with regard to the management of their condition. This included the care they received from health professionals as well as their experience of the health care system.

In keeping with the qualitative design of the study, a purposive sample of attendees, known to be information rich sources was chosen to participate in a focus group discussion. This took place at a diabetic clinic in Zululand. A broad interview schedule was utilised to elucidate patients' experiences of diabetic health care services, health care practitioners and their overall experience of the management of their disease. A thematic analysis of field notes as well as the audio-recording was undertaken to establish key messages from the discussion.

A summary of the key themes is given in Table A1 below.

Table A1: Summary of themes that emerged from patients regarding their experiences of their diabetes care

Health care policy	Need for holistic team management Need to develop and allocate human resources
The health care system	Burden of patients and disease Out-dated equipment and resources
The health care team	Need for preparation in terms of adequate knowledge and skills Motivate to focus on positive attitudes and behaviour
The community	Education of family in order to support patient Education of community
Overall impact on diabetes management	Supportive environment had positive impact on acceptance of disease Control of diabetes and prevention of future complications

The results of this pilot study prompted further investigation as to the role of interpersonal relationships in diabetes management and key themes identified helped to form the interview guide used in the main study of this dissertation.

APPENDIX B: DESCRIPTION OF SITE 1

About 600,000 outpatients and 36,000 inpatients are seen annually at Site 1. English is predominantly spoken by most residents of the area although other patients from local areas may also be isiZulu-speaking. Due to its urban location, the vast majority of patients have a good understanding of English.

The diabetic clinic at Site 1 operates every Monday morning between 7am and 12pm. (A haematology clinic operates from the same location on a Monday afternoon and various other disciplines have clinics throughout the week.) DrR1 is the head of the department and DrR2 the senior consultant. There are up to nine other doctors from registrar level, medical officers, community service doctors and interns who also work in the clinic. Sr TN is the sister in charge of the clinic who also acts as the diabetic nurse educator. Her role is to direct the flow of patients, assist with administration of the clinic as well as schedule further counselling with patients who require the expertise of a nurse educator. Nurse B (a staff nurse) also works in the clinic and assists with administration in the clinic and with interpretation on an *ad hoc* basis

Patients have to be referred from the medical out-patient department (OPD) to the diabetic clinic. They are diagnosed with diabetes in the medical OPD and are routinely seen there unless they require expert care at which stage they are referred to the diabetic clinic. All “young diabetics” (under age 40) are referred to the diabetic clinic as well as any patients with complications or requiring “special care”. They may then be seen continuously in the diabetic clinic, as is the case with “young diabetics”, or referred back to OPD for future care once the immediate problem has been resolved. Patients are generally followed up monthly or three monthly rather than the routine six month follow-up dates given in medical OPD. This is due to the nature of patients who attend the diabetic clinic requiring a higher level of care.

Patients receive a booking date to attend the diabetic clinic but the clinic itself is unaware of how many patients or who those patients will be on any given day. Patients queue on benches outside the clinic and are screened by nurses before going in to see one of the doctors. Patients may request to be seen by a specific doctor whom they have previously consulted, but this request cannot always be honoured due to various logistical reasons. Each doctor sees five to ten patients during the morning.

Patients do not wait for very long to see the nurses or the doctors in the diabetic clinic with the average waiting time being less than an hour. Some doctors arrive from before 7am to start consulting patients, other doctors will complete work in the ward and join the diabetic clinic later in the morning. All patients and doctors consult within the same consulting room which houses up to seven doctor-patient pairs at a time (see Figure B1 below). Once patients have seen the doctor they may be referred for blood tests, to other health practitioners (eg: dietician, eye sister) or directly to the pharmacy for their medication.

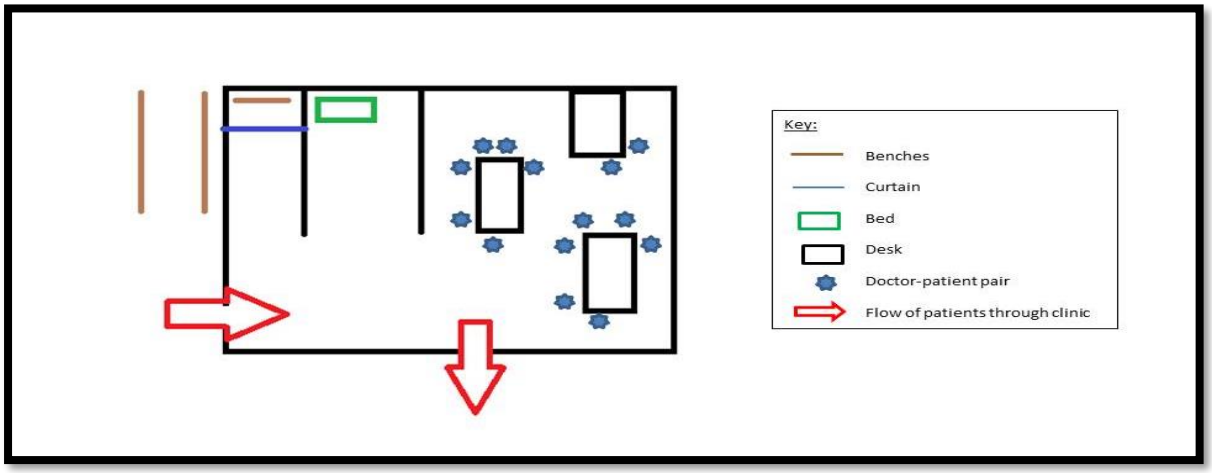


Figure B1: Schematic representation of the diabetic clinic at Site 1

No children were observed during visits and the majority of patients were over age 40. There seemed to be enough seating for all patients on the benches although individual chairs are not easily available (see Figure B2). Posters on the walls, as shown in Figure B3, do refer to aspects of diabetic interest although many of these were quite old and faded and not well adhered to the walls. Various other information of a general nature including hospital organograms and administrative notices were also observed. This clinic is used for numerous other speciality clinics throughout the week, so educational material referring to other conditions eg: asthma was also on display.

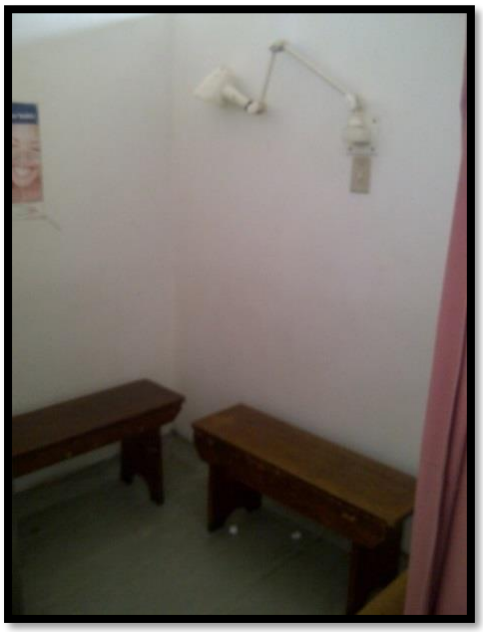


Figure B2: Benches inside the diabetic clinic with curtain utilised for nurse examination of the patients.

Figure B3: Educational posters displayed on the walls in Site 1

The nurses did not operate from a specific station within the clinic but rather moved around between doctors and waiting patients. The area with an examination bed seemed to be used for administrative purposes with boxes and various other files taking up the space. The nurses utilised a separate tea room some distance away from the clinic itself where tea was taken at specific times and the doors to the clinic locked whilst patients waited outside on benches.

Most patients conversed with those closest to them. They did not seem to interact much with the nursing staff unless to ask a specific, direct question. The general ambiance was not overly noisy and despite patients waiting in corridors on benches along the side, the pathways were not congested. There was a fairly even distribution of patients of African and Indian origin with very few European patients attending the clinic. Conversations occurred in English and isiZulu amongst patients. Nursing staff spoke English to all patients.

Patients were directed by the sister in charge to the next available doctor. Patients could request to see a specific doctor, however, they then forfeited their position in the queue and waited until that doctor was next available. Patients were seated across the corner of a table facing their doctor with another doctor-patient pair with their back to them. About four to six doctor-patient pairs consulted from within the same room simultaneously. Interactions took place mainly in English. Nurse G was sometimes called upon to assist with interpretation when necessary.

Figure B4: View of the doctors' consulting area of the diabetic clinic at Site 1 showing tables where patients are consulted with communal access to notes and documentation on each table.

At the pharmacy, patients were screened by a clerk as well as a security guard who checked the file and that they had seen all the relevant practitioners. Patients were then allocated a sequential number which was placed as a sticker on the outside of their hospital file. Patients waited on benches in a corridor that had been covered in with plastic roof sheets. Ventilation came in the form of multiple breaks in the walls and standing fans in the waiting area. Patients were shielded from the sun by the roofing and from wind and rain by the walls of the corridor. Lighting was obtained with artificial fluorescent lighting as well as sky lights providing natural light. Wide spaces were available for patients and staff to walk through without congestion.

The pharmacy waiting area provided for about 500 patients and the wait time could be from one hour to much longer during busier times of the day. Patients followed one another through the benches making use of newspapers provided for reading material as well as talking and interacting with each other. Noise levels were not unbearable and the atmosphere was generally quite pleasant.

Patients were called up five at a time to a pharmacy window where they deposited their files and then waited to receive their medication. Individual explanations of the medications might be available to patients although communication was difficult through thick glass windows at the pharmacy and a build-up of patients behind awaiting their medication. Generally pharmacy assistants handed over the medications whilst pharmacists were seated at a desk behind the counter, preparing and labelling medications.

Once patients had received their medications, they proceeded to the booking clerk also in the pharmacy waiting area to make a repeat appointment and deposit their files before going home.

APPENDIX C: DESCRIPTION OF SITE 2

The hospital at Site 2 provides services to a population of 300,000 people mostly in the surrounding rural areas. It aims to see mainly referred cases from the five Primary Health Care clinics and 40 mobile clinics in the area but often patients from outside these geographical boundaries are seen due to the other facilities offered in the town and ease of transport from outlying areas. Most patients attending the hospital are isiZulu-speaking although they may have a basic understanding of English.

Site 2 is a district hospital but does have some specialised clinics for chronic diseases although these clinics are run by general medical officers and not subject specialists. The diabetic clinic at Site 2 operates every Wednesday from 7:30am – 4pm. Other chronic clinics utilise the same clinical space on various other days. DrE is the senior medical officer in charge of the clinic and the only full-time doctor who works in the clinic. Other community service doctors or medical officers will only assist if the clinic is unusually busy or DrE on leave. Sr N is the professional nurse in charge of the chronic clinics and has up to 10 staff and enrolled nurses who assist her with the patients. Her main function is to direct patients and co-ordinate events in the clinic but she does also assist with patient counselling on an *ad hoc* basis. The diabetic clinic at the hospital is designed as a referral clinic from local PHC clinics and tries to down-refer patients as much as possible. Despite this it is easily accessible and does not refuse patients who seek care despite it being a very busy clinic.

Patients are referred from the general medical OPD once they have been diagnosed with diabetes. All patients in the catchment area are seen by the doctor at Site 2 on a bi-annual basis although the tendency is to down-refer stable patients to collect monthly medication at their local clinics and PHC centres. However, some patients specifically request to be seen at the hospital and they are not turned away. All patients discharged from the wards with diabetic concerns are followed up at the hospital rather than the local clinics. Patients who require an enhanced level of care and need regional level services are referred to hospital N, although due to logistical difficulties, these referrals seldom happen. No children are seen in the clinic as they are referred to paediatric endocrine services in Durban. Patients who are seen by the doctor are those who require six monthly updates of their scripts, patients recently discharged from the hospital or else patients who specifically request to see the doctor as they have various complaints. Nurses will also refer patients to the doctor if they notice any abnormal readings or areas of concern.

Patients waiting were mostly female, over 40 years of age and the vast majority African race. The waiting area was busy (see Figure C1) with patients using the corridors as a thoroughfare to and from other areas of the hospital as well as to join various queues within the clinic. As can be seen in Figure C2 below, patients were moving in many different directions but somehow each patient seemed to know exactly where they were placed in the queue and where they had to go next. Conversation was mostly in isiZulu and often involved groups of patients or across waiting rows of chairs. Patients were also seen to occupy themselves whilst waiting by reading newspapers, engaging in a hobby (eg: sewing) or eating snack food purchased from the hospital tuckshop. Nursing staff was constantly

interacting with patients in the queue, directing them where to go, monitoring their vital signs or making follow-up appointments.

Figure C1 Waiting area at Site 2 showing patients sitting in queues whilst waiting to be attended by the medical staff. (Although photograph has been blurred to obscure the identity of the patients, none of the patients in the photograph were participants in the study.)

There is a TV on the wall behind the nursing station that broadcasts SABC channels. No video machine is available to show educational videos – one has not been procured for fear of it being stolen. Educational posters are mainly displayed in the doctors' consulting rooms and mainly relating to treatment algorithms rather than patient education. The waiting area and consultation rooms were neat and tidy with general workers keeping the area clean on a regular basis.

Patients started queuing for their files before 6am along with all other patients in the general out-patient queue (A on map). From there, they were directed to the diabetic clinic where they were issued with a sequential processing number and then made to sit in rows of chairs. Patients "snaked" through the rows of chairs (B) until they reached the enrolled nurses who are assigned to check their vital signs. One nurse took a history (C) and completed a checklist form of questions relating to their progress since the last visit. A second nurse took and recorded their blood pressure (D) on that same form and a third nurse tested a random glucose reading (E) and recorded that on the form as well. Patients who were to collect blood results were directed to another nurse to locate those results, in paper format (F). Recently bloods for HbA1c levels have been taken after five months of treatment in order that results were available at the next visit for the doctor to review when reviewing the medication chart. However, the logistics of arranging these tests were still being ironed out and many patients slip through the cracks.

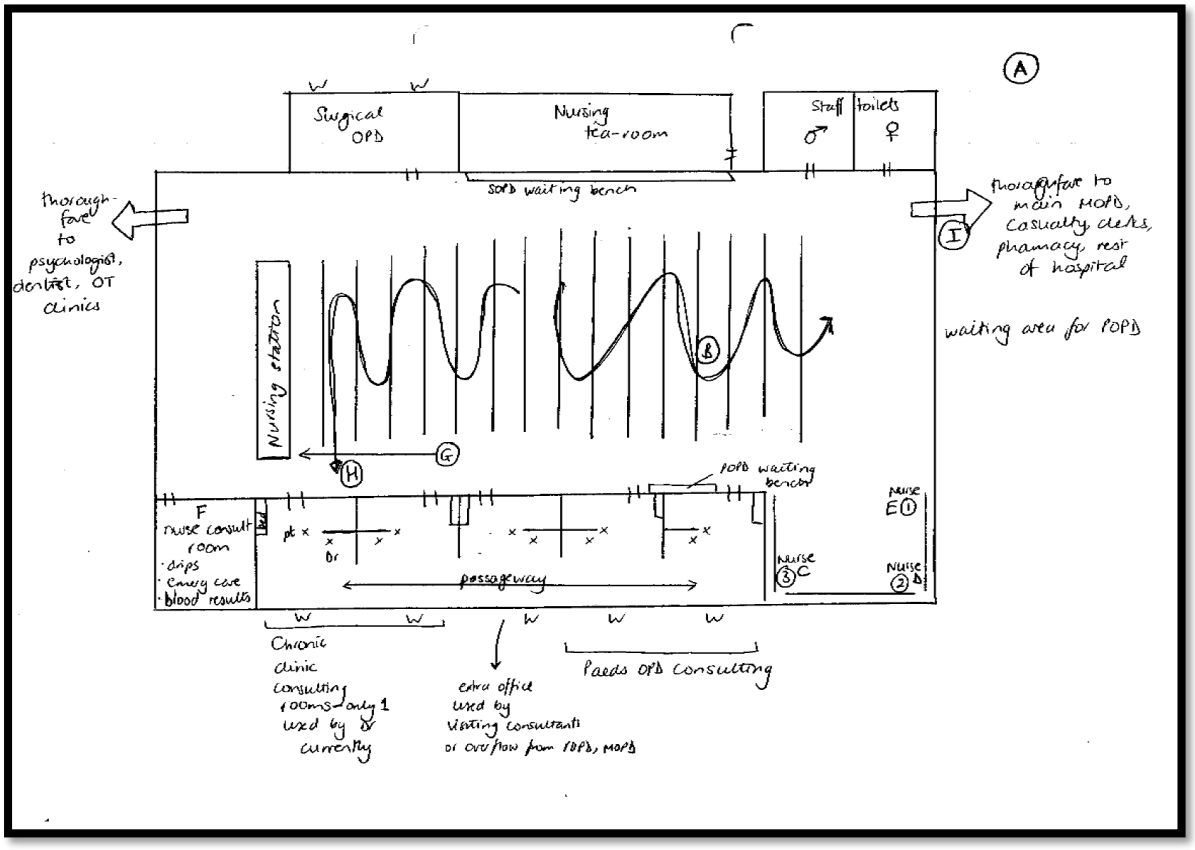


Figure C2 Map diagram of Site 2 OPD clinics

Once patients had their vital signs and history taken, they proceeded to another queue (G) where the results were recorded in a register and a date for a follow-up visit issued. They then proceeded either to the pharmacy (I on map) to collect their medications or joined another queue to wait to see the doctor (H). Patients entered the consultation room as the previous patient left. A closed door separated the consultation room from the waiting area although all the consultation rooms were linked by a small communal passage at the back of them. Doctors and nursing staff frequently walked past at the back of the consultation room as they accessed different rooms, fetched paper work, answered phones and asked for assistance from one another. Mostly, this occurred without disrupting the interaction between doctor and patients but sometimes interactions amongst staff members did interrupt a consultation.

The doctor began his day at 7:30am with a general staff meeting and then proceeded to his ward at 8am to do ward rounds in one of the dedicated medical wards. This usually occupied his time until about 10am after which he went for tea and then arrived in the diabetic clinic at 10:30am. Whilst he was consulting patients in the diabetic clinic, nursing staff from the ward could phone or come to the out-patient department with ward queries and follow-ups that needed attention between diabetic clinic patients. Patients continued to wait for the doctor until the close of the clinic at about 3:30pm. Clinic numbers revealed that about 150 patients are seen in the diabetic clinic of which about 30-50 will be seen by the doctor. The majority of these people came merely for a script renewal and were otherwise stable. The doctor is accustomed to taking a lunch-break between 1-2pm during which time

no patients are processed or consulted. Nursing staff split their tea and lunch hours so that skeleton staff is always available in the clinic.

At the pharmacy, patients deposited their files in a hatch next to the dispensing window and then waited on chairs in the corridor for their name to be called. No queue numbers were given and there was no indication as to how long patients would need to wait. Generally, patients reported waiting 30-120mins depending on how busy the hospital had been. Pharmacy staff also stagger their breaks to ensure continuous service. The pharmacy closes at 4:30pm whereafter patients are referred to casualty to collect their medications.

APPENDIX D: INFORMATION DOCUMENT

For people participating in focus group discussion

Study title: The Role of Communication in the doctor-patient relationship in the management of a CLD such as diabetes mellitus in South Africa.

Introduction:

I, Dr Paula Diab. am doing research on the role of the *doctor-patient relationship* in the management of CLDs such as diabetes. Research is just the process to learn the answer to a question. In this study we want to learn how doctors and patients communicate with each other during the consultation and what impact this has on the way in which they receive treatment. This study will not take the place of your regular, routine visits to your doctor, but rather will allow us to gain insight in to how we could improve the care you receive.

Invitation to participate: We are inviting you to take part in a research study.

What is involved in the study

Communication between a doctor and patient involves not only the words that are spoken but also how they are spoken and the body language that accompanies the words. For this reason, with your consent, we would like you to take part in a focus group discussion with some other patients who also attend the diabetic clinic at this hospital. Your privacy and confidentiality will be maintained at all times and you will not be asked to disclose any personal medical information to other people. Due to the nature of a focus group discussion, complete confidentiality cannot be maintained. If there are any personal or sensitive issues you do not wish others to know, we would suggest that you rather not discuss them at all.

The entire discussion will be audio-recorded so that accurate information can be obtained from the transcription rather than relying purely on the researcher's memory of the content of the discussion.

We will not require you to undergo any other testing or examination other than the tests which your doctor will request as part of your usual consultation.

Risks

There should be no perceived risk of participating in this study as the researchers will act merely as facilitators during your discussion with other participants in the discussion group. Should you wish to discontinue the recording at any stage, you will be free to do so and this will not affect your treatment or regular visit with your doctor.

Benefits

No compensation, financial or otherwise, will be offered for participation in this study. If you are interested in receiving some feedback from this study, this may be made possible through the hospital once analysis of the findings is complete.

Participation is voluntary

Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may discontinue participation at any time without penalty loss of benefits to which you are otherwise entitled.

Reimbursements

No reimbursements will be offered for participation in this study

Confidentiality

Efforts will be made to keep personal information confidential. Absolute confidentiality cannot be guaranteed. Personal information may be disclosed if required by law.

Organisations that may inspect and/or copy your research records for quality assurance and data analysis include groups such as the WITS University Research Ethics Committee.

Publication of these results will need to include the sites at which the research took place, but every effort will be made in order to maintain individual anonymity. No specific names will be mentioned at all.

Contact details of researcher/s

Contact details of REC administrator and chair

APPENDIX E: INTERVIEW SCHEDULE (FGD)

To be asked of patients who regularly attend the diabetic services at each hospital as part of a focus group discussion. Participants will be identified on the day of the study and will be interviewed at the hospital in a quiet location prior to them seeing the doctor at the clinic. Their position in the queue will be maintained and they will be interviewed during the time they would usually just be waiting to see the doctor concerned.

1. What is your experience of this clinic?
   (Probe, where necessary)
2. What is your experience of health care professionals at this clinic?
   (Where necessary, probe in areas of *relationships* between health care professionals and patients)
3. What is your experience of how your diabetes is managed at this clinic?
   (Where necessary, probe as to how experiences and relationships at the clinic have impacted on the management of their chronic condition.)

APPENDIX F: INFORMATION DOCUMENT

Doctor interviews

Study title: The Role of Communication in the doctor-patient relationship in the management of a CLD such as diabetes mellitus in South Africa.

Introduction:

You will recall that last year you were involved in this study on the role of the *doctor-patient relationship* in the management of CLDs such as diabetes. As mentioned previously, research is just the process to learn the answer to a question. In this study we want to learn how doctors and patients communicate with each other during the consultation and what impact this has on the way in which they receive treatment. You may recall I video/audiotaped some consultations that you had with your patients. I am now asking your further co-operation and would like to interview you individually in order to gain further insight into the nature of doctor-patient consultations.

Invitation to participate: We are inviting you to take part in a research study.

What is involved in the study

Communication between a doctor and patient involves not only the words that are spoken but also how they are spoken and the body language that accompanies the words. For this reason, with your consent, we would like you to take part in a focus group discussion with some other patients who also attend the diabetic clinic at this hospital. Your privacy and confidentiality will be maintained at all times and you will not be asked to disclose any personal medical information to other people.

The entire discussion will be audio-recorded so that accurate information can be obtained from the transcription rather than relying purely on the researcher's memory of the content of the discussion.

We will not require you to undergo any other testing or examination other than the tests which your doctor will request as part of your usual consultation.

Risks

There should be no perceived risk of participating in this study. The researcher will hold a discussion with you based on your general experience of doctor-patient relationships and will not refer to any particular pre-recorded consultation at any stage. Should you wish to discontinue the recording at any stage, you will be free to do so.

Benefits

No compensation, financial or otherwise, will be offered for participation in this study. If you are interested in receiving some feedback from this study, this may be made possible through the hospital once analysis of the findings is complete.

Participation is voluntary

Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may discontinue participation at any time without penalty loss of benefits to which you are otherwise entitled. However, your participation would be greatly appreciated since you are a key role-player in the study data that has already been collected.

Reimbursements

No reimbursements will be offered for participation in this study

Confidentiality

Efforts will be made to keep personal information confidential. Absolute confidentiality cannot be guaranteed. Personal information may be disclosed if required by law.

Organisations that may inspect and/or copy your research records for quality assurance and data analysis include groups such as the WITS University Research Ethics Committee.

Publication of these results will need to include the sites at which the research took place, but every effort will be made in order to maintain individual anonymity. No specific names will be mentioned at all.

Contact details of researcher/s

Contact details of REC administrator and chair

APPENDIX G: INTERVIEW GUIDE

(DOCTORS' INTERVIEWS)

To be asked of doctors who participated in the recorded consultations with patients who regularly attend the diabetic services at each hospital.

1. In your experience, working with patients with CLDs, such as diabetes, what techniques or tools have you found that facilitate the way in which you communicate with them?
   (Probe, where necessary)

2. In your experience, working with patients with CLDs, such as diabetes, what techniques or tools have you found that hinder or provide a barrier between you and the patient in terms of how you communicate with them?
   (Probe, where necessary)

APPENDIX H: CONVERSATION ANALYSIS:

NOTATION CONVENTIONS

Key to Jefferson system of coding of Conversation Analysis as developed and described by Gail Jefferson et al taken from http://homepages.lboro.ac.uk/~ssca1/notation.htm accessed January 2015.

(.)	Just noticeable pause
(.3), (2.6)	Examples of timed pauses
↑word,↓word	Onset of noticeable pitch rise or fall *(can be difficult to use reliably)*
A: word [word B: [word	Square brackets aligned across adjacent lines denote the start of overlapping talk. Some transcribers also use "]" brackets to show where the overlap stops
.hh, hh	in-breath (note the preceding fullstop) and out-breath respectively.
wo(h)rd	(h) is a try at showing that the word has "laughter" bubbling within it
wor-	A dash shows a sharp cut-off
wo:rd	Colons show that the speaker has stretched the preceding sound.
(words)	A guess at what might have been said if unclear
( )	Unclear talk. Some transcribers like to represent each syllable of unclear talk with a dash
word= =word	The equals sign shows that there is no discernible pause between two speakers' turns or, if put between two sounds within a single speaker's turn, shows that they run together
word, WORD	Underlined sounds are louder, capitals louder still
ºwordº	material between "degree signs" is quiet
>word word< <word word>	Inwards arrows show faster speech, outward slower
→	Analyst's signal of a significant line
((*sniff*))	Transcriber's effort at representing something hard, or impossible, to write phonetically

APPENDIX I: HUMAN RESEARCH ETHICS

COMMITTEE CLEARANCE CERTIFICATE

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG
Division of the Deputy Registrar (Research)

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)
R14/49 Dr Paula Diab

CLEARANCE CERTIFICATE	**M121021**
PROJECT	The Role of Communication in the Doctor-Chronic Lifestyle Disease such as Diabetes in South Africa
INVESTIGATORS	Dr Paula Diab.
DEPARTMENT	School of Human & Community Development
DATE CONSIDERED	26/10/2012
DECISION OF THE COMMITTEE*	Approved unconditionally

Unless otherwise specified this ethical clearance is valid for 5 years and may be renewed upon application.

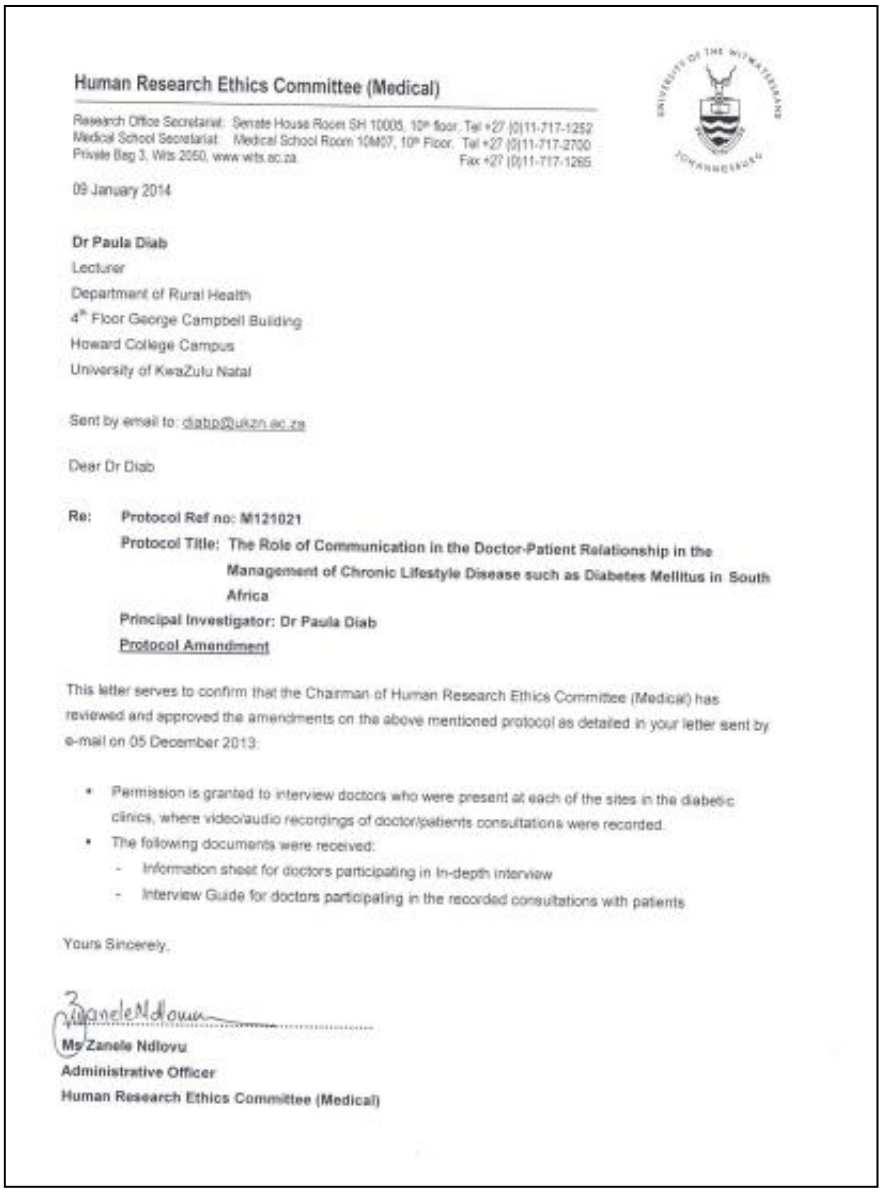
DATE 26/10/2012 **CHAIRPERSON** .....
(Professor PE Cleaton-Jones)

*Guidelines for written 'informed consent' attached where applicable
cc: Supervisor : Prof Claire Penn

DECLARATION OF INVESTIGATOR(S)
To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10004, 10th Floor, Senate House, University.
I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. **I agree to a completion of a yearly progress report.**

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES...

APPENDIX J: HUMAN RESEARCH ETHICS COMMITTEE CLEARANCE CERTIFICATE AMENDMENT



Human Research Ethics Committee (Medical)

Research Office Secretariat: Senate House Room SH 10005, 10th floor. Tel +27 (0)11-717-1252
Medical School Secretariat: Medical School Room 10M07, 10th Floor. Tel +27 (0)11-717-2700
Private Bag 3, Wits 2050, www.wits.ac.za Fax +27 (0)11-717-1265

09 January 2014

Dr Paula Diab
Lecturer
Department of Rural Health
4th Floor George Campbell Building
Howard College Campus
University of KwaZulu Natal

Sent by email to: diabp@ukzn.ac.za

Dear Dr Diab

Re: Protocol Ref no: M121021
Protocol Title: The Role of Communication in the Doctor-Patient Relationship in the Management of Chronic Lifestyle Disease such as Diabetes Mellitus in South Africa
Principal Investigator: Dr Paula Diab
Protocol Amendment

This letter serves to confirm that the Chairman of Human Research Ethics Committee (Medical) has reviewed and approved the amendments on the above mentioned protocol as detailed in your letter sent by e-mail on 05 December 2013.

- Permission is granted to interview doctors who were present at each of the sites in the diabetic clinics, where video/audio recordings of doctor/patients consultations were recorded.
- The following documents were received:
  - Information sheet for doctors participating in in-depth interview
  - Interview Guide for doctors participating in the recorded consultations with patients

Yours Sincerely,

ZanneleNdlovu

Ms Zanele Ndlovu
Administrative Officer
Human Research Ethics Committee (Medical)

APPENDIX K: INFORMATION DOCUMENTS

For hospitals participating in study

Study title: The Role of Communication in the doctor-patient relationship in the management of a CLD such as diabetes mellitus in South Africa.

Introduction:

I, Dr Paula Diab. am doing research on the role of the *doctor-patient relationship* in the management of CLDs such as diabetes. Research is just the process to learn the answer to a question. In this study we want to learn how doctors and patients communicate with each other during the consultation and what impact this has on the way in which patients receive treatment.

Invitation to participate: We are inviting doctors and patients from your hospital to take part in a research study. Information will be given to them individually as well and they will be able to consent to take part individually as well.

What is involved in the study

Communication between a doctor and patient involves not only the words that are spoken but also how they are spoken and the body language that accompanies the words. For this reason, with your consent, we would like to video-record regular consultations between doctors and patients within the context of the diabetic clinic so that we can understand how communication occurs. Privacy will be protected at all times and should participants not wish to be identified in the video-recording, care will be taken to ensure their confidentiality.

We may record one or more consultations during the day but do not anticipate it to take any extra time on the behalf of the doctor or the patients concerned. We will not require any additional testing or examination other than the tests which would usually be requested as part of the usual consultation. Any physical examination needing to be performed will NOT be video-recorded.

We would also like to conduct a focus group discussion with some other patients who also attend the diabetic clinic at this hospital. This discussion we hope to schedule whilst patients are waiting to be seen in the clinic, thus utilising the time optimally and not incurring any extra burden on the patients. Their privacy and confidentiality will be maintained at all times and they will not be asked to disclose any personal medical information to other people. Due to the nature of a focus group discussion, complete confidentiality cannot be maintained and thus we will discourage participants from discussing any personal or sensitive issues.

The entire discussion will be audio-recorded so that accurate information can be obtained from the transcription rather than relying purely on the researcher's memory of the content of the discussion.

Risks

There should be no perceived risk of participating in this study as the researchers will act merely as observers during your routine consultation. Should you wish to discontinue the recording at any stage, you will be free to do so and this will not affect the remainder of a consultation with your patients.

Benefits

No compensation, financial or otherwise, will be offered for participation in this study. If you are interested in receiving some feedback from this study, this may be made possible through the hospital once analysis of the findings is complete.

Participation is voluntary

Refusal to participate will involve no penalty or loss of benefits to which participants are otherwise entitled. They may discontinue participation at any time without penalty loss of benefits to which you are otherwise entitled.

Reimbursements

No reimbursements will be offered for participation in this study

Confidentiality

Efforts will be made to keep personal information confidential. Absolute confidentiality cannot be guaranteed. Personal information may be disclosed if required by law.

Organisations that may inspect and/or copy your research records for quality assurance and data analysis include groups such as the WITS University Research Ethics Committee.

Publication of these results will need to include the sites at which the research took place, but every effort will be made in order to maintain individual anonymity. No specific names will be mentioned at all.

Contact details of researcher/s

Contact details of REC administrator and chair:

For patients participating in audio-recording of consultations

Study title: The Role of Communication in the doctor-patient relationship in the management of a CLD such as diabetes mellitus in South Africa.

Introduction:

I, Dr Paula Diab. am doing research on the role of the *doctor-patient relationship* in the management of CLDs such as diabetes. Research is just the process to learn the answer to a question. In this study we want to learn how doctors and patients communicate with each other during the consultation and what impact this has on the way in which they receive treatment. This study will not take the place of your regular, routine visits to your doctor, but rather will allow us to gain insight in to how we could improve the care you receive.

Invitation to participate: We are inviting you to take part in a research study.

What is involved in the study

Communication between a doctor and patient involves not only the words that are spoken but also how they are spoken and the body language that accompanies the words. For this reason, with your consent, we would like to audio-record your regular consultation with your doctor so that we can understand how communication occurs. Your privacy will be protected at all times and should you not wish to be identified in the audio-recording, care will be taken to ensure your confidentiality.

We will only record one consultation that you have and will not require you to return at any stage but would like to speak with you after the consultation if time allows. We will not require you to undergo any testing or examination other than the tests which your doctor will request as part of your usual consultation. We do not anticipate this to take any extra time from you, other than your routine consultation with your doctor.

Risks

There should be no perceived risk of participating in this study as the researchers will act merely as observers during your routine consultation. Should you wish to discontinue the recording at any stage, you will be free to do so and this will not affect your treatment or regular visit with your doctor.

Benefits

No compensation, financial or otherwise, will be offered for participation in this study. If you are interested in receiving some feedback from this study, this may be made possible through the hospital once analysis of the findings is complete.

Participation is voluntary

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Contact details of researcher/s

Contact details of REC administrator and chair

For patients participating in video-recording of consultations

Study title: The Role of Communication in the doctor-patient relationship in the management of a CLD such as diabetes mellitus in South Africa.

Introduction:

I, Dr Paula Diab. am doing research on the role of the *doctor-patient relationship* in the management of CLDs such as diabetes. Research is just the process to learn the answer to a question. In this study we want to learn how doctors and patients communicate with each other during the consultation and what impact this has on the way in which they receive treatment. This study will not take the place of your regular, routine visits to your doctor, but rather will allow us to gain insight in to how we could improve the care you receive.

Invitation to participate: We are inviting you to take part in a research study.

What is involved in the study

Communication between a doctor and patient involves not only the words that are spoken but also how they are spoken and the body language that accompanies the words. For this reason, with your consent, we would like to video-record your regular consultation with your doctor so that we can understand how communication occurs. Your privacy will be protected at all times and should you not wish to be identified in the video-recording, care will be taken to ensure your confidentiality.

We will only record one consultation that you have and will not require you to return at any stage but would like to speak with you after the consultation if time allows. We will not require you to undergo any testing or examination other than the tests which your doctor will request as part of your usual consultation. Any physical examination your doctor may need to perform will NOT be video-recorded. We do not anticipate this to take any extra time from you, other than your routine consultation with your doctor.

Risks

There should be no perceived risk of participating in this study as the researchers will act merely as observers during your routine consultation. Should you wish to discontinue the recording at any stage, you will be free to do so and this will not affect your treatment or regular visit with your doctor.

Benefits

No compensation, financial or otherwise, will be offered for participation in this study. If you are interested in receiving some feedback from this study, this may be made possible through the hospital once analysis of the findings is complete.

Participation is voluntary

Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may discontinue participation at any time without penalty loss of benefits to which you are otherwise entitled.

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Publication of these results will need to include the sites at which the research took place, but every effort will be made in order to maintain individual anonymity. No specific names will be mentioned at all.

Contact details of researcher/s

Contact details of REC administrator and chair

For doctors participating in audio-recording of consultations

Study title: The Role of Communication in the doctor-patient relationship in the management of a CLD such as diabetes mellitus in South Africa.

Introduction:

I, Dr Paula Diab. am doing research on the role of the *doctor-patient relationship* in the management of CLDs such as diabetes. Research is just the process to learn the answer to a question. In this study we want to learn how doctors and patients communicate with each other during the consultation and what impact this has on the way in which patients receive treatment.

Invitation to participate: We are inviting you to take part in a research study.

What is involved in the study

Communication between a doctor and patient involves not only the words that are spoken but also how they are spoken and the body language that accompanies the words. For this reason, with your consent, we would like to audio-record regular consultations you have with your patients so that we can understand how communication occurs. Your privacy will be protected at all times and should you not wish to be identified in the audio-recording, care will be taken to ensure your confidentiality.

We may record one or more consultations during the day but hope that it will not include more of your time with a patient than usual. We will not require you to perform any additional testing or examination other than the tests which you would request as part of your usual consultation.

Risks

There should be no perceived risk of participating in this study as the researchers will act merely as observers during your routine consultation. Should you wish to discontinue the recording at any stage, you will be free to do so and this will not affect the remainder of a consultation with your patients.

Benefits

No compensation, financial or otherwise, will be offered for participation in this study. If you are interested in receiving some feedback from this study, this may be made possible through the hospital once analysis of the findings is complete.

Participation is voluntary

Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may discontinue participation at any time without penalty loss of benefits to which you are otherwise entitled.

Reimbursements

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Publication of these results will need to include the sites at which the research took place, but every effort will be made in order to maintain individual anonymity. No specific names will be mentioned at all.

Contact details of researcher/s

Contact details of REC administrator and chair

For doctors participating in video-recording of consultations

Study title: The Role of Communication in the doctor-patient relationship in the management of a CLD such as diabetes mellitus in South Africa.

Introduction:

I, Dr Paula Diab. am doing research on the role of the *doctor-patient relationship* in the management of CLDs such as diabetes. Research is just the process to learn the answer to a question. In this study we want to learn how doctors and patients communicate with each other during the consultation and what impact this has on the way in which patients receive treatment.

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What is involved in the study

Communication between a doctor and patient involves not only the words that are spoken but also how they are spoken and the body language that accompanies the words. For this reason, with your consent, we would like to video-record regular consultations you have with your patients so that we can understand how communication occurs. Your privacy will be protected at all times and should you not wish to be identified in the video-recording, care will be taken to ensure your confidentiality.

We may record one or more consultations during the day but hope that it will not include more of your time with a patient than usual. We will not require you to perform any additional testing or examination other than the tests which you would request as part of your usual consultation. Any physical examination you may need to perform will NOT be video-recorded.

Risks

There should be no perceived risk of participating in this study as the researchers will act merely as observers during your routine consultation. Should you wish to discontinue the recording at any stage, you will be free to do so and this will not affect the remainder of a consultation with your patients.

Benefits

No compensation, financial or otherwise, will be offered for participation in this study. If you are interested in receiving some feedback from this study, this may be made possible through the hospital once analysis of the findings is complete.

Participation is voluntary

Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may discontinue participation at any time without penalty loss of benefits to which you are otherwise entitled.

Reimbursements

No reimbursements will be offered for participation in this study

Confidentiality

Efforts will be made to keep personal information confidential. Absolute confidentiality cannot be guaranteed. Personal information may be disclosed if required by law.

Organisations that may inspect and/or copy your research records for quality assurance and data analysis include groups such as the WITS University Research Ethics Committee.

Publication of these results will need to include the sites at which the research took place, but every effort will be made in order to maintain individual anonymity. No specific names will be mentioned at all.

Contact details of researcher/s

Contact details of REC administrator and chair

APPENDIX L: CONSENT DOCUMENTS

For all participants

Study title: The Role of Communication in the doctor-patient relationship in the management of a CLD such as diabetes mellitus in South Africa.

I hereby agree to participate in this study concerning the role of communication in the doctor-patient relationship in the management of a CLD such as diabetes mellitus.

I understand that I am participating freely, without being forced in any way to do so.

I also understand that I can withdraw my participation at any point should I not want to continue and that this decision will not in any way affect me negatively.

I understand that this is a research project whose purpose is not necessarily to benefit me personally.

I have received the telephone number of a person to contact should I need to speak about any issues which may arise in this interview discussion.

I understand that this consent form will not be linked to my responses, and that my answers will remain confidential

PARTICIPANT:

X _____ X _____ X_____

Name Signature Date

STUDY STAFF ONLY

_____ _____ _____

Printed Name Signature Date

I, ...*(INSERT NAME OF STUDY STAFF)*, herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study, and has consented to audio record the discussion.

Consent to audiotape for participants in focus group discussion and consultation

Study title: The Role of Communication in the doctor-patient relationship in the management of a CLD such as diabetes mellitus in South Africa.

I hereby consent to have this interview discussion audio tape recorded so that data can be accurately captured.

I understand that no personally identifiable information will be released in any form.

I also understand that this audio recording will be kept locked in a secure environment and will only be accessed by the researchers in this study.

Additionally, I understand that the audio tapes will be destroyed 2 years after publication.

I also understand that the transcripts of this interview discussion will be used for purposes of the study: The Role of Communication in the doctor-patient relationship in the management of a CLD such as diabetes mellitus in South Africa.

PARTICIPANT:

X_____ X _____ X_____

Printed Name Signature Date

STUDY STAFF ONLY

_____ _____ _____

Printed Name Signature Date

I, ...*(INSERT NAME OF STUDY STAFF)*, herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study, and has consented to audio record the discussion.

Consent to videotape for participants in consultation recording

Study title: The Role of Communication in the doctor-patient relationship in the management of a CLD such as diabetes mellitus in South Africa.

I hereby consent to have this consultation video tape recorded so that data can be accurately captured.

I understand that no personally identifiable information will be released in any form and my identity will be protected at all times.

I also understand that this video recording will be kept locked in a secure environment and will only be accessed by the researchers in this study.

Additionally, I understand that the video tapes will be destroyed 2 years after publication.

I also understand that the transcripts of this recording will be used for purposes of the study: The Role of Communication in the doctor-patient relationship in the management of a CLD such as diabetes mellitus in South Africa.

PARTICIPANT:

X_____ X _____ X_____

Printed Name Signature Date

STUDY STAFF ONLY

_____ _____ _____

Printed Name Signature Date

I, ...*(INSERT NAME OF STUDY STAFF)*, herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study, and has consented to audio record the discussion.