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**HEALTH DIALOGUE ELEMENTS IDENTIFIED  
DURING HEALTH COMMUNICATION BETWEEN  
NURSES AND PATIENTS WITH DIABETES IN THE  
MALUTI-A-PHOFUNG MUNICIPALITY**

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**Submitted in accordance with the requirements for the degree**

**Master of Social Science (Nursing)**

**In the School of Nursing**

**Faculty of Health Sciences**

**UNIVERSITY OF THE FREE STATE**

**SUPERVISOR: Prof A Joubert**

# ***DECLARATION***

I hereby declare that the dissertation submitted to the University of the Free State for the qualification, Magister Societatis Sciences in Nursing, is my original work and has not previously been submitted to/in any other faculty/university for the same qualification. I further waive my copyright of the dissertation in favour of the University of the Free State.

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**D.K.J. Mosia**

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# SUMMARY

Health communication is the primary aspect used in healthcare to promote the well-being of the public and to prevent diseases. Therefore, communication plays an important role in healthcare settings. Health information is disseminated to both individuals and the public through sharing knowledge on health and health management. Importantly, effective communication between healthcare providers and patients is needed to improve patients' adherence to treatment, recovery, and their satisfaction with service delivery.

The relationship between health dialogue and health communication was described. Elements related to health dialogue, which include antecedents and empirical referents, were discussed as indicated in the conceptual map. A checklist, consisting of the criteria which meet the expected behaviour, was developed and used to assess the extent to which health dialogue elements were used during health communication between nurses and diabetic patients in the Maluti-A-Phufong Municipality, Thabo Mofutsanyana District. The guideline for the use of the observational checklist was developed and used to guide the observers and improve the validity and reliability of data during the study.

A quantitative, descriptive, cross-sectional design was used to describe the health dialogue elements employed during health communication between nurses and diabetic patients in the Maluti-A-Phufong Municipality, Thabo Mofutsanyana District.

Individual nurses, who manage diabetic patients in thirty-one clinics of Maluti-A-Phufong Municipality, Thabo Mofutsanyana District, were conveniently selected to participate. One hundred and thirty-seven diabetic patients were involved in the study. The researcher also used a tape recorder to collect data. Nurses and patients were simultaneously observed. Thereafter, the researcher and the fieldworker gathered individual and private feedback from nurses and patients on questions addressing their experience on shared responsibility and decision making during

consultation. The mentioned interviews lasted for five minutes or less. All nurses and patients involved in the study signed the consent forms.

A biostatistician, who was consulted during planning of the study, made use of Statistical Analysis Software (SAS) to analyse the collected data. Frequencies and percentiles were used to summarize numerical and categorical variables. Differences between groups were assessed on a 95% confidence interval for unpaired data.

Recommendations focused on the development and implementation of health education policies which will be used in all clinics and applied the same when managing patients with diabetes or any other chronic condition.

Key terms: Health communication; health dialogue elements (Antecedents such as positive attitude, sensitivity or respect and training in communication; and empirical referents which include a shared responsibility and decision making, a mutually determined health plan and the use of context sensitive communication strategies); nurses and diabetic patients).

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# **CHAPTER 1**

## **Overview of the study**

### **1.1 CONCEPT CLARIFICATION**

#### **1.1.1 Health communication**

The World Health Organization (Storey, Seifert-Ahanda, Andaluz, Tsoi, Matsuki & Cutler, 2014:S242; Centers for Disease Control and Prevention (CDC), 2011; Rimal & Lapinski, 2009: 247) views health communication as the study and use of communication approaches to update, influence, and encourage individuals as well as the community about important health issues, and to enable the adoption of beliefs, knowledge and behaviour that will promote health. Health communication is seen as the umbrella of health dialogue and health education.

*For this study, health communication will refer to health communication between a nurse and patient diagnosed with diabetes. Said health communication will be observed within an identified health facility using an observation checklist.*

#### **1.1.2 Health dialogue**

Health dialogue is a communication approach used in discussions with patients about their health, and is aimed at promoting health and modifying behaviour through shared conversation (Wu, Tung, Liang, Lee & Yu, 2014:187; Bickmore & Giorgino, 2004:2). The afore mentioned communication approach can be used by nurses to give advice, interview, and teach patients about their welfare as well as to discuss and to prioritise behaviour change interventions (Wu *et al.*, 2014:187; Golsäter, Sidevall, Lingfors & Enskär, 2011:2574; Bickmore & Giorgino, 2004:2). Health dialogue is seen as a communication approach that enables the nurse and

the patient to easily communicate healthcare issues and make decisions together in order to reach an identified goal.

*For this study, health dialogue will refer to the two-way communication between the nurses and their patients with diabetes in the primary healthcare clinics of Maluti-A-Phofung municipality, which include the elements of health dialogue in managing the illness. Health communication will be observed within an identified health facility using an observation checklist.*

### **1.1.3 Elements**

Elements are components of the whole parts into which a whole is resolved by analysis (Dictionary.com online). Elements related to health dialogue refer to the antecedents, characteristics, empirical referents and consequences indicated in the conceptual map (Refer to Figure 1.3). Antecedents refer to incidents or events which must have occurred before the characteristics as identified will manifest, the empirical referents are elements that, as a result of the presence of the antecedents and characteristics will be observable entities. The consequence refers to the outcomes as a result of the application of health dialogue (Walker & Avant, 2011:167). This study will focus on only two of the elements, namely antecedents with reference to positive attitude, sensitivity, and respect and whether training in communication has been received, and then empirical referents which include a shared responsibility and decision making, a mutually determined health plan and the use of context sensitive communication strategies.

*In this study, an observational checklist will be used focusing on the two identified elements.*

### 1.1.4 Maluti-A-Phofung Municipality

Maluti-A-Phofung Local Municipality (MAP) is situated in the Free State province, and is one of the six municipalities of the Thabo Mofutsanyana district (Maluti-A-Phofung Local Economic Development Strategy, 2015-2020:12). The municipality consists of four former Transitional Local Council (TLC) local authorities which are Harrismith, Kestel, Phuthaditjhaba and Qwaqwa rural. The estimated population is 335 784. The municipality is divided in 25 wards and covers approximately 4 421 km<sup>2</sup>. Harrismith is a service centre for the surrounding rural areas and a trading belt serving the passing N3, which links Gauteng and KwaZulu-Natal provinces. Harrismith is surrounded by Tshiame which is located 12 km to the west, and Intabazwe 1.5 km to the North. The town is an economic hub for people living in Tshiame, Intabazwe and Qwaqwa. Kestel is a service centre for the surrounding agricultural oriented rural area with Tlholong as the township. The town is situated along the N5 road that links Harrismith with Bethlehem. Phuthaditjhaba is the urban centre of Qwaqwa and serves as the administrative head office of Maluti-A-Phofung municipality. Phuthaditjhaba is surrounded by rural villages Qwaqwa established on tribal land administered by Department of Land Affairs.

Maluti-A-Phofung (MAP) is rated the as the most poverty-stricken area in the Free State Province. The unemployment rate exceeds 50%. The government sector is the largest employer in the municipal area. The majority of people living in rural areas of Maluti-A-Phofung still depend on backyard gardens and commercial farms. Commercial farming generates income for the province and is known for its beef production (Maluti-A-Phofung Local Economic Development Strategy, 2015-2020:13; Statistics South Africa, 2011).

*Reference in this study to Maluti-A-Phofung municipality would refer to all fixed primary healthcare clinics and community health centres at Maluti-A-Phofung.*

### **1.1.5 Nurses**

Nurses, according to the South African Nursing council, Nursing Act 2005 (Act No. 33 of 2005), are people registered in a category under section 31(1) in order to practice nursing or midwifery. Subject to the provisions of section 37 (payment of registration fees), no person may practice as a practitioner unless he or she is registered to practice in at least one of the following categories; (a) professional nurse, (b) midwife (c) staff nurse (d) auxiliary nurse, or (e) auxiliary midwife.

*In this study nurses will refer to both professional, and staff nurses involved in the management of patients with type 1, 2, or other types of diabetes. Such people should have worked with the diabetic patients for one year and above in the Maluti-A-Phofung municipality primary health care clinics. Where applicable these categories were referred to as healthcare providers.*

### **1.1.6 Patients with Diabetes Mellitus**

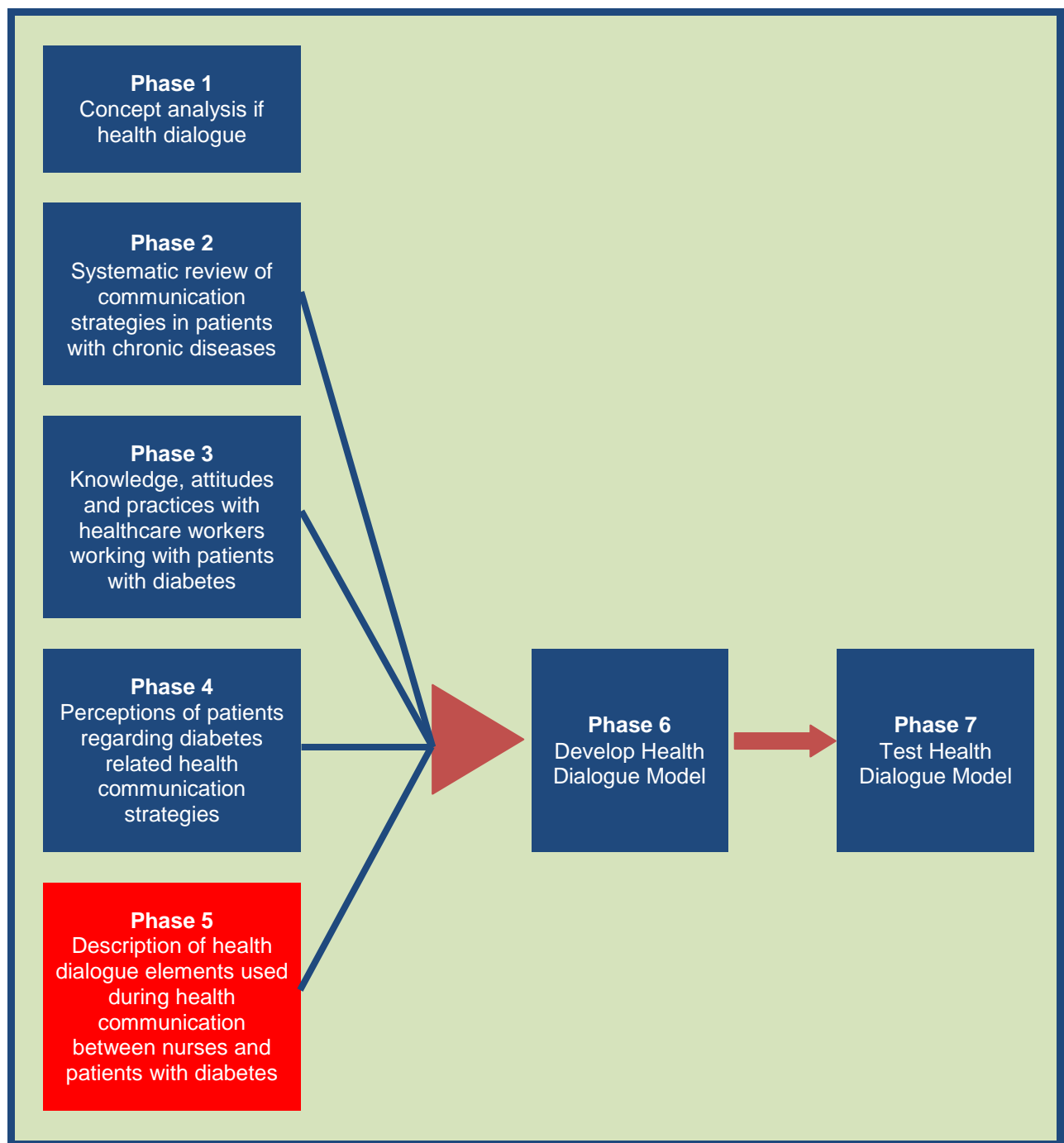
Diabetes mellitus is as a complex disorder of a carbohydrate, fat and protein metabolism that is characterised by the abnormally hyperglycaemia or a relative shortage of insulin being produced and a lower insulin action and increased insulin resistance (Van Rensburg, 2012:257; Butler, 2011:41; Smeltzer, Bare, Hinkle & Cheever 2010:1196; Mosby's Medical Dictionary, 2009:542; South African Department of Health Diabetes education, 1998:1; South African Department of Health Standard Treatment Guidelines and Essential Drugs List, 2003:46). Diabetes presents in two major kinds, namely, type 1 diabetes and type 2 diabetes. Type 1 diabetes occurs in children and young adults and is responsible for 5% to 10% of diabetes cases. Type 2 diabetes develops later in life and accounts for 90% to 95% of diabetes cases. Type 2 diabetes is related to risk factors associated with lifestyle. However, other types of Diabetes Mellitus, such as pancreatic diabetes mellitus, prediabetes and gestational diabetes also exists (South African Department of Health, Standard Treatment Guidelines and Essential Medicine List, 2012:8.4; Smeltzer *et al.*, 2010:1197).

*In this study patients with type 1, 2, or other types of Diabetes Mellitus, who are eighteen years and above and on diabetic treatment, will be included in the Maluti-A-Phofung primary health care clinics.*

## **1.2 BACKGROUND**

This study forms part of a complex intervention research that follows a phased approach allowing researchers to work towards the development and testing of a health dialogue model for patients with diabetes. The current research will only focus on phase 5, creating the opportunity to describe health dialogue elements used during health communication between nurses and patients with diabetes. Refer to Figure 1.1, depicting the phased approach followed in the complex research intervention this study forms part of.





**FIGURE 1.1:** Positioning of proposal within a complex intervention research process (Reid, 2015)

## 1.3 INTRODUCTION

The complexities related to health dialogue become evident when one tries to explain the different concepts used interchangeably with health dialogue. Therefore, an effort has been made to breach the gap in healthcare providers understanding of the relationships between health dialogue, health education, and health communication.

Health dialogue is a communication approach used in discussions with patients about their health and is aimed at promoting health and modifying behaviour through shared conversation (Jensen & Pals, 2015:169; Wu *et al.*, 2014:187; Bickmore & Giorgino, 2004:2). The mentioned communication approach can be used by nurses to give advice, interview and teach patients about their welfare as well as to discuss and prioritise behaviour change interventions (Jensen & Pals, 2015:170; Wu *et al.*, 2014:187; Golsäter *et al.*, 2011:2574; Bickmore & Giorgino, 2004:2).

Health dialogue is characterised by one-on-one or face-to-face modes of communication, as to allow the participant in the conversation to respond to gestures and non-verbal cues (Swanson, 2016:14; Long & Gambling, 2012:268; Golsäter, Sidenvall, Lingfors & Enskär, 2010:26). Within the realm of health dialogues, nurses and patients regard each other as equals during the management of chronic conditions such as diabetes. As such, there is creation of a relaxed environment that allows teamwork between the nurses and patients. These elements of health dialogue are what distinguish health dialogues from health education or other similar concepts (Swanson, 2016:9; Wu *et al.*, 2014:188; Geyer, Mogotlane & Young, 2009:259; Tveiten & Meyer, 2009:805).

Health dialogue also involves exchanging basic knowledge about a patient's condition based on the level of understanding of each patient. This basic encounter is followed by focused strategies that are aimed at moving from the basics to strategically comprehensive information about the condition. It is from these focused interventions that health dialogue makes use of diverse approaches that are

congruent with the level of understanding of individual patients (Dirmaier, Harter & Weymann, 2013:2; Knapp, Gillespie, Malec, Zier & Harless, 2013:389; Wennberg, Marr, Lang, O'Malley & Bennett, 2010:1245).

Strategies that can be employed in health dialogue range from face-to-face discussions to conversations complimented by media programs such as Skype<sup>1</sup> (Harris, Freeman & Duke, 2015:6; Dirmaier, *et al.*, 2013:2). Other strategies include telephone, social network media like Twitter and Facebook, as well as radio and television programs. Through these communication strategies patients can increase their knowledge about medication, the importance of treatment compliance and lifestyle modification (Shah & Garg, 2015:1; Long & Gambling, 2012:269). However, in contexts with less technological advancement, accomplishment of health dialogues can be achieved by one-on-one discussions that are based on focused strategic follow-ups (Swanson, 2016:14; Färnkvist, Olofsson & Weinehall, 2008:135). These follow-ups are structured in such a way that there is a move from basic to comprehensive information. Based on individual patients, this shift is accomplished by use of other communication techniques such as the telephone or social media (Wennberg *et al.*, 2010:1245).

The initial interaction should be in such a way that it is followed by visits to give and seek information that should probe further inquiry about the condition. It is from this open invitation that patients become actively involved and are able to voice their concerns (South African Department of Health, Adult Primary Care guide, 2016-17:79; Dirmaier *et al.*, 2013:2; Knapp *et al.*, 2013:389; Kiragū<sup>a</sup> & McLaughlin, 2011:421; Tveiten & Meyer, 2009:805). Furthermore, it is within these open-ended discussions that the patients feel respected and valued.

As stated before health dialogue embraces active nurse-patient participation (Holtz, Annis, Morrish, Burns & Krein, 2016:1; Tveiten & Meyer, 2009:805). There is mutual learning for both the healthcare provider and the patient (Johansson, Österberg, Leksell & Berglund, 2016:1; Mahmud, Olander, Eriksen & Haglund, 2013:2).

---

<sup>1</sup> Skype is a computer programme that can be used to make free voice calls over the Internet to anyone else who is also using Skype. It is free of charge and considered easy to download and to use. The programme is compatible with most computers.

Healthcare providers learn about the patient's needs. The patients receive more information on health and health management and the relationship between health and lifestyle change (Johansson *et al.*, 2016:2; Mahmud *et al.*, 2013:2). In encouraging active patient participation, the healthcare provider uses the theoretical skills, maintain good therapeutic interpersonal relationship, and use the patient's language (Johansson *et al.*, 2016:5; Golsäter *et al.*, 2011:2574). Even though both the nurse and patient work towards empowering the patient to take control of their own health, health dialogue encourages informed decision-making and management of health issues (Johansson *et al.*, 2016:5; Nørgaard, Kofoed, Kyvik & Ammentorp, 2012:699).

In contrast with health dialogue where partners work together, health education is a one-way information giving process, in which nurses provide patients with knowledge and skills with the hope of improving and maintaining the well-being of patients with chronic conditions (Vasuthevan & Mthembu, 2013:52). Aimed at increasing the patient's satisfaction and compliance, health education relies on providing information about the diagnosis, symptoms, lifestyle changes, and self-care management (South African Department of Health, Adult Primary Care guide, 2016-17:79; Wu *et al.*, 2014:187; Shue, O'Hara, Marini, McKenzie & Schreiner, 2010:361). Reiterating the same notion, the World Health Organization explains health education as any combination of learning experiences designed to help individuals and communities improve their well-being by increasing their knowledge or influencing their attitudes (South African Department of Health, A Comprehensive Primary Health Care Service Package for South Africa, 2001:27; South African Department of Health, Policy Guideline on Chronic Disease, 2002:7).

Furthermore, health education is a nurse-centred approach in which nurses, being experts, give advices and make recommendations to patients irrespective of patients' needs about their condition. In such conversations, patients are told what to do and what not to do, and the consultations are rushed (Mash, Kroukamp, Gaziano & Levitt, 2015:1; Vasuthevan & Mthembu, 2013:56).

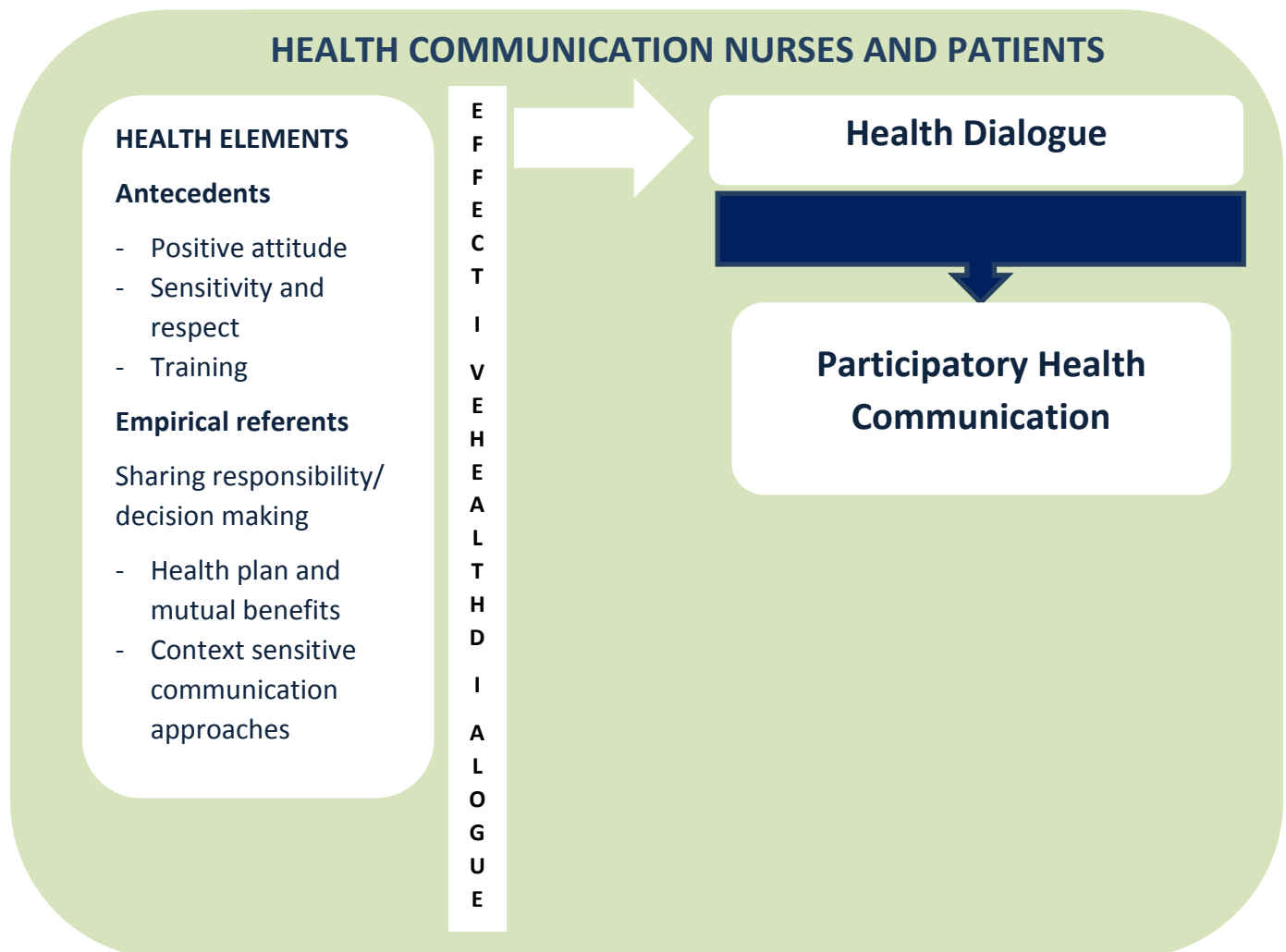
Health education provides patients with the necessary information regarding their condition immediately after they have been diagnosed, without considering their feelings and fears, and this may cause patients not to comply with their treatment (South African Department of Health, Diabetes Education, 1998:18). In most incidences, health information is provided to the patients on their follow up dates that are designated for further investigations and treatment (South African Department of Health, Adult Primary Care guide, 2016-17:79). As such, information received and given is likely to be overloaded, unfocussed and abstracted, and this may result in mismanagement of conditions.

The relationship between health dialogue and health communication could be described as one-on-one, face-to-face interaction as the central element in transmitting information to the patients and community at large (Marinescu, Nimrod & Carlo, 2013:1; Long & Gambling, 2011:268; Bickmore & Giorgino, 2006:556). For the interaction between the healthcare providers professional and the patient to take place there should be communication between them. Both communication methods use a form of persuasive communication to promote health (Balamurugan, Rivera, Sutphin & Campbell, 2007:270). Even though they use the same forms of transmitting information, health communication also uses radio, newspaper and entertainment education as other additional methods. (Bickmore & Giorgino, 2006:556; Balamurugan *et al.*, 2007:270). The aim of both dialogue and health communication is to empower and improve the literacy level of individuals and the community with health matters (Domnariu, 2014:161; Mahmud *et al.*, 2013:2).

The dialogue embraces active nurse-patient participation (Tveiten & Meyer, 2009:805). There is mutual learning for both the healthcare providers provider and the patient (Mahmud *et al.*, 2013:2). Healthcare providers providers learn about the patient's needs. The patients receive more information on health and health management and the relationship between health and lifestyle change. (Mahmud *et al.*, 2013:2). In encouraging active patient participation, the healthcare providers provider uses the theoretical skills, maintain good therapeutic interpersonal relationship, and use the patient's language (Golsäter *et al.*, 2011:2574). Even though they both empower patients to take control of their own health, health

dialogue encourages informed and shared decision-making (Nørgaard *et al.*, 2012:699).

To explain the relationship between health dialogue and health communication as related to the proposed study, the following would be crucial:



**FIGURE 1.2: Relationship between health communication and health dialogue**

Health elements namely, antecedents and empirical referents, are prerequisites for health dialogue. Therefore, “health dialogue” is distinguished from “health communication” in that “health dialogue” would only exist if health elements were observed during health communication between nurses and patients (Refer to Figure 1.2 & 1.3).

A quantitative, descriptive, cross-sectional design is proposed to describe health communication between nurses and patients suffering from diabetes mellitus in the Maluti-A-Phofung municipality. Mainly the focus will be on whether the health dialogue elements are used during health communication between categories of nurses and their patients with diabetes.

The concepts relevant to this study will be health communication, health dialogue elements, nurses, and patients with diabetes mellitus. A description of the Maluti-A-Phofung municipality was included in order to contextualize the study. The relationship between health dialogue and health communication has been clarified by means of a conceptual map and a description of the relationships (Refer to Figure 1.2 & 1.3).

## **1.4 PROBLEM STATEMENT**

Patients are treated in a variety of healthcare settings, and can potentially receive treatment from a number of healthcare providers including specialists (WHO, 2007: Online). Of the variety of settings, Primary Healthcare (PHC) has been identified as the most suitable environment to address health promotion, in an effort to minimize the constant rise of chronic diseases (Ward, Miller, Marconi, Kaslow & Farber, 2015:265; Mahmud *et al.*, 2013:2). In any of the mentioned settings, patients' movement between areas of diagnosis, treatment and healthcare, although mostly dynamic, do present with certain patient risks (WHO, 2007: Online). One of these risks is a breakdown in communication. In Primary Healthcare, ineffective communication do result in poor health outcomes (Okunrintemi, Spatz, Capua, Salami, Valero-Elizondo, Warraich, Virani, Blaha, Blankstein, Butt, Borden, Dharmarajan, Ting, Krumholz & Nasir, 2017:4; Wynia & Osborn, 2010:103).

Breakdown in communication happens despite the fact that globally the scope of practice of nurses include for example, the responsibility to assess the health information needs of patients, to plan and respond accordingly, and to initiate and maintain therapeutic relationships. Nurses' training includes the ability to facilitate communication by and with patients, in the execution of the nursing scope of

practice. The aim of communication is to prevent diseases and to promote health by teaching to and counselling individuals and groups of people. Seeking and sharing information promotes quality health care and improves clinical outcomes (Nursing Act 33 of 2005; American Nurses Association, 2010). Unfortunately, it seems that the recognition of the importance of health communication has been slow.

Only recently health communication was allocated a chapter in the United States of America (USA's) Healthy People 2010 objectives (WHO, 2007: Online). This slow recognition was despite the fact that health communication is seen to be applicable to practically every aspect of health and well-being, including prevention of disease, promotion of health and maintaining quality of life (Hunter, 2016:515; Rimal & Lapinski, 2009:247).

To strengthen this statement, Rimal and Lapinski (2009:247) describe health communication as being at the *"heart of who we are as human beings"*, that it could be defined as the symbolic exchange of shared meaning, and that health communication has both a transmission and ritualistic component. The same authors also stated that health communication is a dynamic process, but that it is reasonable to expect discrepancies between messages disseminated and received (South African Department of Health, Updated Management of Type 2 Diabetes in Adults At Primary Care Level, 2014:7; Rimal & Lapinski, 2009:247) . Considering Rimal and Lapinski's (2009:247) description, health communication could also be defined as both an art and a technique used to inform, influence and motivate individuals, as well as institutional and public audiences about relevant health issues (Vasuthevan & Mthembu, 2016:67; Mahmud *et al.*, 2013:2).

Concepts included in further descriptions of "health communication" are that it is a participatory approach, that collaborative learning for both provider and receiver of health communication is required, and that empowerment through dialogue and collaborative learning is crucial (Mahmud *et al.*, 2013:2). Empowerment of the health care recipient through improved health literacy is critical in health communication (Mahmud *et al.*, 2013:2, cited in Nutbeam).



Two studies that addressed healthcare providers ability to provide health information to patients were considered. One study used observation to determine if healthcare providers were able to provide health information to patients in a supportive way. The findings of this study were that the healthcare providers did use the resource material that they perceived to be relevant and understandable, but that health communication took place in a controlled environment rather than a non-threatening conducive environment (Botes, Majikela-Dlangamandla & Marsh, 2013:3).

The study by Naidoo, Mahomed, Asmal and Taylor, (2014:1) assessed the knowledge of nurses after being trained in chronic conditions using South African Department of Health, Primary Care 101 guidelines. The focus of their study was to assess the effect of the Primary Care 101 guidelines on chronic disease management and training, on nurses' knowledge of chronic disease management, such as diabetes and hypertension. The results revealed that due to the improved knowledge of nurses trained on Adult Primary Care 101 guidelines, the management of patients diagnosed with Diabetes Mellitus was certainly enhanced. Other studies in the field of knowledge and nursing practices, that are supporting the results mentioned in the previous two studies, are that of Botes *et al.* (2013:2), Parker, Steyn, Levitt and Lombard (2011:), and Mash, Levitt, van Vuren and Martell (2008:).

Potential barriers to health dialogue do exist. Barriers that were listed regarding patient hand-overs, and that could maybe be applied to Primary Healthcare areas, included for example, time pressures from patient care needs and other responsibilities, cultural and language differences among patients and healthcare providers, and failure of leadership to require implementation of new systems and behaviours (WHO, 2007:Online).

In the Free State, where the proposed study will be conducted, professional nurses working at the healthcare centres have been using health education as the means of communication between them and patients with chronic, non-communicable conditions to address health problems, and to encourage treatment compliance and patient self-care. In reference to the definition of health communication, it must again

be noted that this is a nurse-centred approach to patient management, opposed to using health dialogue elements during health communication.

In the Maluti-A-Phofung municipality, the South African Department of Health, Primary care 101 guideline do provide the structure on how health communication should be conducted during consultation of every patient, diagnosis and routine care of diabetes patients. However, the researcher could not identify any study that was done to evaluate if patients with Diabetes Mellitus in this district are managed within the framework of these guidelines. Therefore, the researcher proposed to address the gap through a study that will aim to determine if health dialogue elements are used during health communication between nurses and patients with diabetes in the Maluti-A-Phofung municipality.

## **1.5 RESEARCH QUESTION**

Are health dialogue elements present during health communication between nurses and diabetic patients in the Thabo Mofutsanyana District?

## **1.6 AIM AND OBJECTIVES**

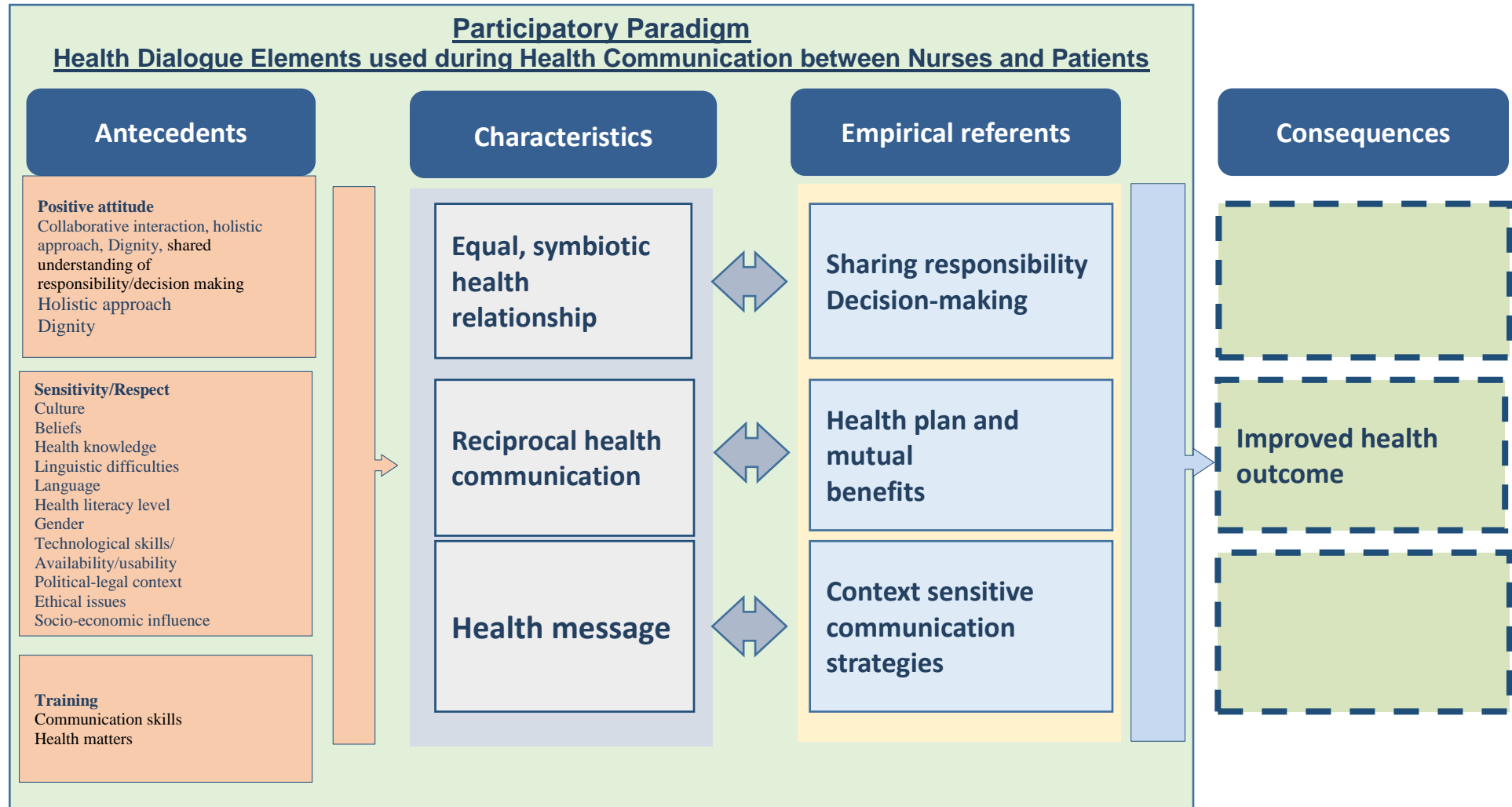
The aim of the study is to describe the extent to which health dialogue elements are used during health communication between nurses and diabetic patients in the Maluti-A-Phofung Municipality, Thabo Mofutsanyana District.

To meet the aim, the objective was to observe the extent to which the following two elements (1.6.1 & 1.6.2) of health dialogue, as depicted in figure 1.3 were used during health communication between nurses and diabetic patients in the Maluti-A-Phofung Municipality, Thabo Mofutsanyana district:

- (1) Identify antecedents - which include a positive attitude, sensitivity and respect and training,
- (2) Identify empirical referents – which refers to shared responsibility and decision making, mutual beneficial health plan, and context sensitive communication strategies.

## 1.7 CONCEPTUAL MAP

This study will be guided by the conceptual map adapted from Reid (2015) illustrated in Figure 1.3



**FIGURE 1.3: Conceptual map depicting health dialogue elements**

Figure 1.3 depicts the conceptual map for this study. The map is based on elements identified through a concept analysis of health dialogue, which is embedded in a participatory paradigm (Reid, 2015: Unpublished). The elements include antecedents, characteristics, empirical referents and consequences. Antecedents refer to incidents or events that must take place before the characteristics will occur, whereas characteristics refer to essential aspects that clarify a concept (Walker & Avant, 2011:167), in this case the concept “health dialogue”. Empirical referents, on the other hand, create the opportunity to measure the characteristics (Walker & Avant, 2011:168). Alternatively, consequences refer to incidents or events that occur as a result of a concept (Walker & Avant, 2011:167).

This study focused on two of the elements, namely the antecedents and empirical referents needed during health dialogue between nurses and diabetic patients; the reason being that the antecedents need to be taken into consideration to clarify the social context in which the health dialogue takes place, whereas the empirical referents create the platform to measure the characteristics. The consequences of health dialogue between the identified role players falls outside the scope of this study.

Within the context of health dialogue between the nurses and patients with diabetes, the antecedents described in this study include the role players’ extent of positive attitude towards: collaborative interaction, holistic approach, dignity of all role players, and relationship characteristics such as trust, empathy, confirmation and emotional support.

The second antecedent assessed the extent of sensitivity/respect towards aspects such as culture, beliefs, health knowledge, linguistic difficulties, language, health literacy level, gender, technological skills/availability/usability, political-legal context, ethical issues and possible socio-economic influences. It also included assessing sensitivity towards communication strategies used, tailoring of health messages and assessing whether previous communication strategies were evaluated. The third antecedent assessed the extent of training on health matters and communication skills.

Three empirical referents are present. The visible presence of shared understanding/decision making between the nurse and patient with diabetes acted as a measurement tool for the characteristic of an equal, symbiotic health relationship. The characteristic of reciprocal health communication was measured through the presence of a beneficial health plan for both the patient and nurse. Assessing whether a context sensitive communication strategy was used provided evidence of how a health message was conveyed.

## **1.8 RESEARCH DESIGN**

A quantitative descriptive cross-sectional design was employed in the study (Polit & Beck, 2008:274). Quantitative methods have the potential to influence the quality of evidence the study yields through statistics (Ellis, 2010:62). Basically, quantitative researchers observe if the expected pattern actually occurs (de Vos, Strydom, Fouché, & Delport, 2011:48).

## **1.9 RESEARCH TECHNIQUE**

The researcher used an observational checklist and supportive guideline developed by Reid and Joubert (2016/17: Unpublished) to describe the extent to which health dialogue elements were addressed during health communication between the nurses and patients with diabetes in the Maluti-A-Phofung municipality (Refer to Figure 1.3).

Conducting research in a setting such as the primary healthcare clinic whereby the environment cannot be changed, a Hawthorne effect is anticipated. The researcher did the following in an attempt to reduce such: the dress code for both the researcher and the fieldworker was non-threatening (not dressing in a nurses' uniform), barriers such as the table between the nurse, patient and researcher were removed, and permission was requested to use the tape recorder. By doing so, the researcher maintained consistency in results to be obtained that either measure what is to be measured.

### **1.9.1 Format of observational checklist (Refer to Annexure H)**

The observational checklist consists of General questions, question 1-3; Part 1: Nurse and patient demographic information, question 5-11; Part 2: Antecedents, question 13-38; and Part 3: Empirical Referents, question 39-41. The questionnaire included “yes” and “no” questions, motivations and the expressions of the feelings of the nurse and the patient about the consultation. After observing the consultation, the researcher identified the extent to which the dialogue elements were met. The researcher was able to identify if a consultation was nurse-centred or if two-way communication between the nurse and the patient was evident.

#### **1.9.1.1 *Guideline for the use of the observational checklist*** ***(Refer to Annexure I)***

The guideline addressed all the questions mentioned in 1.14.1, and was developed to guide the researcher and to improve the validity and reliability of data obtained during the observation of health communication between nurses and patients.

## **1.10 POPULATION AND SAMPLING**

The population in this study included all 32 fixed Primary Healthcare Clinics (PHCs) and community healthcare centres in the Maluti-A-Phofung. No sample will be taken.

The population was also 182 nurses which include 158 professional nurses and 24 staff nurses working in these primary healthcare clinics. The population for the Diabetes Mellitus patients who visited the different facilities over a period of one year is unfortunately not available in any of the mentioned facilities. This could be due to patients utilizing different facilities that are in close proximity (Refer to Table 1.1).

**TABLE 1.1: Clinics and numbers and categories of nursing staff**

<b>NO</b>	<b>NAME OF CLINIC</b>	<b>NUMBER OF NURSES PER CLINIC</b>	<b>PROFESSIONAL NURSES (RN)</b>	<b>ENROLLED NURSES (EN)</b>
1	Bolata	6	4	2
2	Boiketlo	5	4	1
3	Bluegumbosch	7	6	1
4	Eva mota	2	2	0
5	Harrismith	8	7	1
6	Intabazwe	6	5	1
7	Kopanong	9	6	3
8	Lesedi	6	5	1
9	Ma-haig	4	4	0
10	Makeneng	5	4	1
11	Makgoalaneng	4	3	1
12	Makwane	6	4	2
13	Malesaoana	3	3	0
14	Marakong	14	13	1
15	Matsieng	2	2	0
16	Monontsha	6	5	1
17	Mphatlalatsane	5	4	1
18	Namahadi	11	9	2
19	Nthabiseng	3	3	0
20	Paballong	5	5	0
21	Phuthaditjhaba	9	9	0
22	Qholaqhwe	6	6	0
23	Riverside	7	6	1
24	Skamoth-mota	3	3	0
25	Tebang	13	12	1
26	Thaba-bosiu	4	3	1
27	Thabang	2	2	0
28	Tina Moloi	2	2	0
29	Tseki	5	5	0
30	Tshirela	4	4	0
31	Tshiame	10	8	2
	<b>TOTAL</b>	<b>182</b>	<b>158</b>	<b>24</b>

The following types of samples will be applicable to address the aim of the study (Grove, Burns & Gray, 2013:360).

#### **1.10.1      *Convenient sample: Nurses (Professional and staff nurses) and patients***

The convenient sample will consist of 32 nurses rendering healthcare to patients with diabetes mellitus in the 32 Primary Healthcare Clinics and centres. Each nurse per clinic will be observed during health communication with five patients (32 nurses\*5 patients each = 160 patients).

(1)      *Inclusion in the study will also depend on nurses that:*

- Signed consent to participate in the study
- Are trained and involved in consultation/health communication during a follow-up visit for diabetes mellitus

(2)      *Inclusion in the study will also depend on patients that:*

- Signed consent to participate in the study
- Are involved in consultation/health communication during a follow-up visit for diabetes mellitus
- Are 18 years and older

### **1.11 PILOT STUDY**

A pilot study was done by the researcher and the fieldworker to test the observational checklist and guideline. More specifically, the pilot study was done to determine whether the observational checklist and guideline was suitable to address the aim stated of the study and to establish the average time it will take nurses to conduct a health communication session. Such information enabled the researcher to better prepare to collect valid and reliable data. The researcher and the fieldworker both conducted the first interview together, and thereafter shared



interviews in an attempt to assess the validity and reliability of the observational checklist.

One clinic listed in table 1.1, and a nurse that was required to conduct health communication with five individual patients diagnosed with Diabetes Mellitus were conveniently selected. Based on the pilot study, the observation checklist and guideline was to be refined. However, if no changes were made to both mentioned instruments, the data gathered in the pilot study was to be included in the main study.

The fieldworker is a nurse who had one year of experience in nursing. She did her diploma in nursing (General, Psychiatric and Community) and Midwifery at the Eastern Campus Free State School of Nursing. She also did her community service in one of Maluti-A-Phofung clinics of which she did not collect the data from it.

## **1.12 DATA COLLECTION**

Ethical clearance to conduct the study was obtained from the Health Sciences Research Ethics Committee (UFS), and other stakeholders (Refer to Ethical Issues). The researcher and fieldworker made use of an observation checklist, a guideline, and a tape recorder to collect data (Refer to Annexure F & G). Before engaging in a study, the fieldworker was trained on the role to take in the research. The fieldworker and the researcher completed the observational checklist simultaneously, but at their selected, individual clinics.

To facilitate entry to the research setting, the researcher made appointments with the clinic managers, as well as professional and staff nurses responsible for managing patients with chronic diseases, at the listed clinics. The researcher provided them with a copy of each of the above-mentioned letters.

Nurses that were conveniently selected to participate in the study were informed about the study and written consent was obtained before data were gathered on a pre-scheduled day. Permission was also obtained to tape record the health communication between a nurse and a patient. The professional or staff nurse responsible for chronic patients identified the patients when they arrive at the facility for their follow-up visit, after which the researcher obtained their consent on the day scheduled for their follow-up visit. The researcher confirmed that an ample number of diabetic patients do visit the facilities at a given time. The researcher ensured that enough copies of the observation checklist were available during the data collection period.

The researcher and the fieldworker gathered individual information privately from the nurse and patient on questions addressing the demographic data before the beginning of a health communication session (Refer to Annexure F). Nurses and patients were observed simultaneously to determine the extent to which health dialogue elements are used during health communication. On completion of a health communication session, the researcher and fieldworker gathered individual and private feedback from the nurse and the patient on questions addressing their experience on shared responsibility and decision-making during the consultation (Refer to Annexure F). A private venue for this feedback was identified at each facility. The mentioned individual interviews did not exceed 5 minutes.

Quality control was maintained by keeping the dates when access was gained into the field, dates of conducting study, keeping the tape recorder and records of people who participated in the study in a safe cabinet which was always locked.

### **1.13 VALIDITY AND RELIABILITY**

In this study the researcher used an existing observational checklist and guideline that was constructed based on the findings from a concept analysis (Reid, 2015: Unpublished). The supervisor and health dialogue expert (refer to Reid) compiled the two data collection tools as part of their own research. The observation checklist and guideline was also piloted and refined by them over a period of time. However, in this

study the researcher used feedback based on her own pilot of the observation checklist to promote face and content validity. The observational checklist and guideline were also scrutinised by the both the School of Nursing's Evaluation committee and the Health Sciences Research Ethics Committee (UFS). Lastly, data was duplicated, that is, captured twice as a measure to ensure that results are valid.

According to de Vos *et al.* (2011:177) reliability is measured by ensuring that the instrument evaluates what it is supposed to measure more than once and produce the same results when measuring the same variable. In this study the researcher reviewed the existing observational checklist to ensure that enough questions to measure health dialogue elements were included and that the observation checklist was based on the conceptual map developed by Reid (Reid, 2015:Unpublished). Furthermore, to improve reliability, changes were not made to the observational checklist after a pilot study was conducted.

## **1.14 ETHICAL ISSUES**

Permission to conduct the study was obtained from the Health Sciences Research Ethics Committee (UFS) before the researcher requested permission from the Head of the Free-State Department of Health. Furthermore, considering the ethical principles of beneficence, non-maleficence, and justice, as well as the ethical principles stipulated by the Health Sciences Research Ethics Committee (UFS), the following were included in the letter to the respondents:

- That personal information will not appear on the observational checklist or in any document that is disseminated. Data will be locked away in a safe drawer and only accessible to the researcher, supervisors and bio-statistician.
- That there will be no risk or cost involved in participating in the study. Furthermore, that respondents will not be remunerated. That an information consent leaflet will be made available to explain the study and their responsibilities, and that informed consent will have to be signed by them.

- Respondents were also made aware that they will receive a copy of the informed consent. The informed consent letter had a section where the respondents acknowledged that they were familiar with the content of the study.
- That participation in the study was voluntary and that they can withdraw anytime if they don't feel comfortable about the study. The professional or staff nurses and patients were given consent forms to sign in order to indicate that they agree to participate in the study.
- Regarding time needed to participate; the respondents were informed that the data will be gathered during their visit to the nurse, and that it will take only five minutes extra of their time after their visit.
- Respondents were informed that the results of the study will be disseminated at different academic platforms such as, conferences and workshops, as well as an article in a peer reviewed accredited journal.

## **1.15 DATA ANALYSIS**

The researcher coded and captured the data on a Microsoft Excel spreadsheet. Descriptive statistics namely means and standard deviations or medians and percentiles for continuous data and frequencies and percentages for categorical data, were calculated per group for both nurses and patients. The groups were compared by means of 95 per cent confidence intervals. Data analysis was done by the biostatistician at the Department of Biostatistics in the University of Free-State.

## 1.16 CONCLUSION

The study indicates the importance of health dialogue between nurses and patients with diabetes during health communication. An observational checklist and a guideline developed by Reid and Joubert (2016/17: Unpublished) were used. More information is provided on the use of health dialogue elements during health education between nurses and patients with diabetes.

## 1.17 CHAPTER LAYOUT

CHAPTER	DESCRIPTION
1	Introduction of the study, aim and the reason for conducting the study.
2	Introduction of the available literature on aspects relevant to the study.
3	Methodology implemented, including research design, research technique and the study intervention.
4	Discussion of data analysis and research results .
5	Research process, results, recommendations, gaps, proposed research and conclusions

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# **CHAPTER 2**

## ***Literature review***

### **2.1 INTRODUCTION**

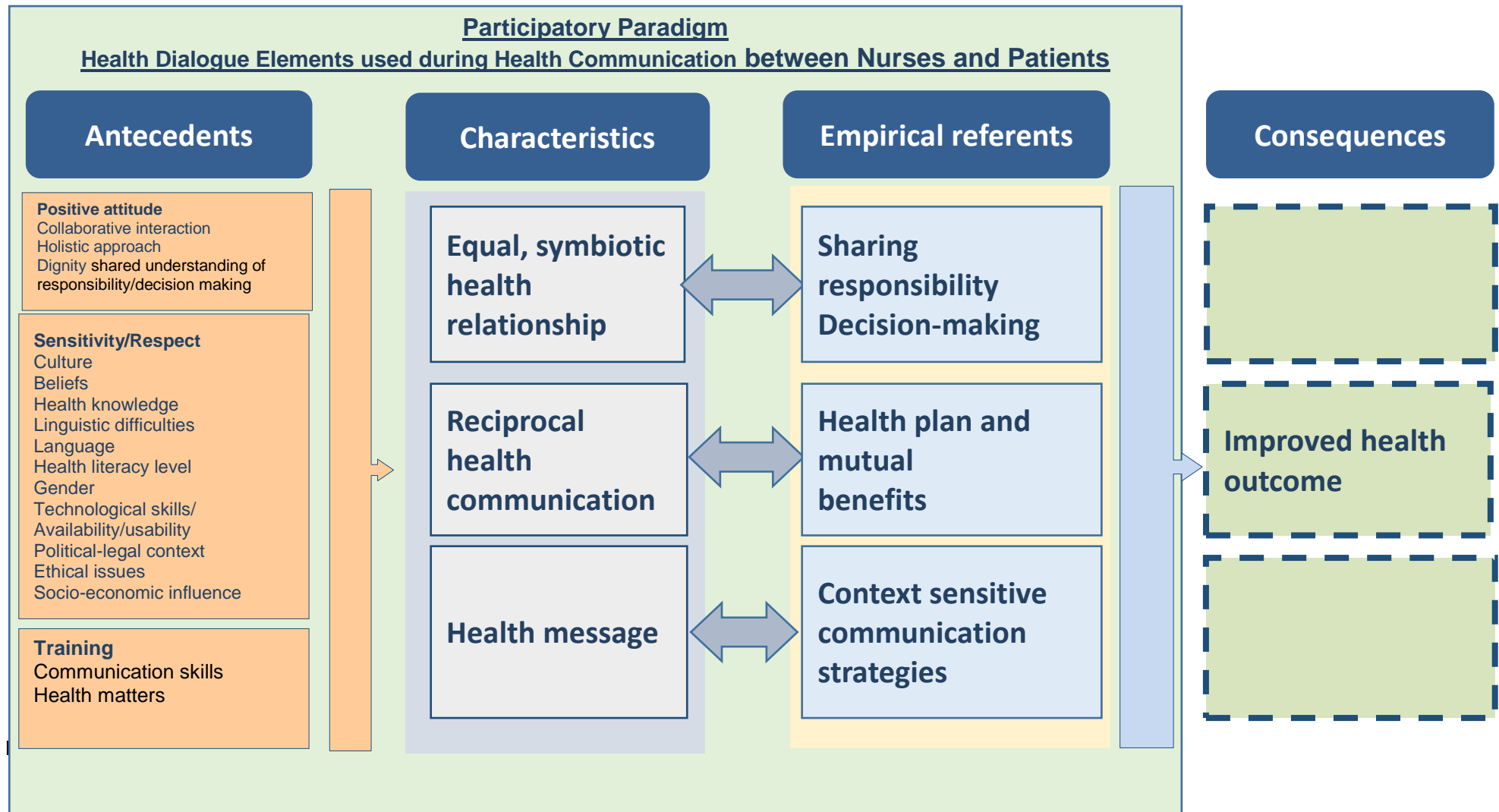
In Chapter 1, the researcher describes the background and problem statement and gives an overview of the research methodology. The study aimed to describe the extent to which health dialogue elements are used during health communication between nurses and patients with diabetes. It should again be noted that the study was part of a complex intervention study where a phased approach allowed researchers to develop and test a health dialogue model for patients with diabetes (Refer to Figure 1.2) that indicates the position of the current study within this complex intervention research process.

Chapter 2 provides the background to the study and elaborates on the conceptual map of Health Dialogue adapted from Reid (2015: Unpublished). The concepts related to health dialogue elements used during health communication are embedded in a participatory paradigm. The main concepts included in the discussion are antecedents, characteristics, empirical referents and consequence. Each of these concepts consists of sub-headings depicted in figure 2.1. The discussion in chapter 2 will follow the sequence indicated above.

## **2.2 BACKGROUND**

Reid (2015: Unpublished) presented the findings of a study titled, 'Health Dialogue: A Concept Analysis', at the Royal College of Nursing (RCN) research conference in Nottingham, United Kingdom. Investigating both adult patients taking chronic medication at the Primary Healthcare (PHC) clinics and the nurses who consulted these patients, she aimed to determine if health outcomes could be improved when nurses working at PHC clinics engage with patients taking prescribed chronic medication through dialogue, either on a one on-one basis, or within a group.

A conceptual map that facilitated the development of a middle range theory on health dialogue, and that could be used by policy makers as a guide to design a monitoring system on health dialogue, was proposed (Reid, 2015:Unpublished). Importantly, the results of this study were used to inform the current study on health dialogue elements used during health communication between nurses and diabetic patients in the Maluti-A-Phofung municipality.



**FIGURE 2.1:** A conceptual map depicting the main and sub-concepts on health dialogue elements



## 2.3 PARTICIPATORY PARADIGM

A participatory paradigm is a world view that incorporates the active participation of individuals in all forms of communication (De Vos *et al.*, 2011:493; World Health Organisation, 2015:6; Creswell, 2009:9). Participatory paradigms aim to bring change in the way things are done (De Vos *et al.*, 2011:493; Creswell, 2009:10). To facilitate change, stakeholders need to conduct an in-depth investigation into a problem. A definition of a new problem is then stated (Creswell, 2009:10). Through problem identification the elements of the problem are identified. Suitable actions to change the situation are then implemented (Creswell, 2009:10; Wright, Roche, von Unger, Block & Gardner, 2009:4 Chinn & Kramer, 2008:81).

A participatory paradigm is recursive and dialectical (World Health Organisation, 2015:6; Creswell, 2009:10). It is this dialectical process that produce dialogues from different respondents (World Health Organisation, 2015:6). The respondents engage in dialogues with the intention to come up with different views on the problem being discussed (World Health Organization, 2015:6). The engagement of both parties through communication leads to suggestions of creative ways in which a problem can be managed (Jensen & Pals, 2015:170).

Through a participatory paradigm, shared ownership, learning, and action taking is promoted (Ornelas, Aguiar, Sacchetto & Jorge-Monteiro, 2012:6). Shared ownership is reached when the respondents engage in decision-making about a related issue (South African Department of Health, Adult Primary Care guide, 2016/17). The respondents make decisions after being provided with relevant and truthful information regarding the problem at hand (Hove, 2014:134). Furthermore, respondents agree on the individual responsibilities to solve the problem (Shima, Farizah & Majid, 2014:1597). For the diabetic patients to engage in shared decision-making, nurses need to provide relevant information to manage the condition.

Enabling the patients to make informed decisions help them to feel in control of their illness (South African Department of Health, Adult Primary Care guide, 2016-17). The Health Belief Model indicates that for the patient to engage in self-management in an attempt to change their behaviour, they need to be well informed about their diseases. With an understanding that people are influenced by the language they speak, culture, beliefs, and values on the way they think, a participatory paradigm facilitates inquiries about the reasons why people think and act the way they do (Wright *et al.*, 2009:3; Creswell, 2009:10; Chinn & Kramer, 2008:81). Using a participatory paradigm, the researcher is able to assess the issues which disadvantage people and/or encourages self-development (Chinn & Kramer, 2009:102; Creswell, 2009:10). Research has shown that for the patients to engage in self-development, nurses need to respect the culture and beliefs and speak the language which is understood by patients (Taylor, Nicolle & Maguire, 2013:35; Basnyat & Dutta, 2012:274).

Participatory paradigms incorporate the assessment of social and political injustices (Creswell, 2009:10). Through participatory research the researcher is able to assess the problems affecting individuals and the society at large (Creswell, 2009:9). The aim therefore, is to engage all the stakeholders, including the politicians, in a dialogue regarding the problem (Creswell, 2009:9). Thus, using the participatory paradigm in research enables the researcher to inform all the stakeholders about the results, ensuring effective change can be implemented (Creswell, 2009:10).

In this study a participative paradigm will enable the researcher to observe the extent to which the elements of health dialogue, stated in chapter one, are used during health communication between the nurses and diabetic patients in Maluti-A-Phofung, Thabo Mofutsanyana district.

## **2.4 HEALTH DIALOGUE, HEALTH COMMUNICATION AND HEALTH DIALOGUE ELEMENTS**

A discussion on health dialogue, health communication and health dialogue elements are included in the following section. Health dialogue elements include positive attitude (collaborative interaction, holistic approach and dignity); sensitivity or respect (culture, beliefs, health knowledge, linguistic difficulties, language, health literacy level, gender, technological skills, availability/usability, political-legal context, ethical issues and socio-economic influence); training (communication skills and health matters); characteristics, empirical referents and consequences (Refer to Figure 2.1).

### **2.4.1 Health dialogue**

Health dialogue includes a two-way communication between nurses and patients in order to obtain and provide information about their conditions (Kiragu & McLaughlin, 2011:420). With health dialogue, patients are able to take control of their personal lives, and actively participate in decisions that impact on their lives (Jensen & Pals, 2015:170; South African Department of Health, Adult Primary Care guide, 2016-17). Furthermore health dialogue enable patients to voice their problems, come up with the solutions, and, through solving their problems, improve their chances of better health outcomes (Kiragu & McLaughlin, 2011:420-421).

Nurses and patients exchange ideas and opinions on the management of chronic diseases in an attempt to reach an agreement on the treatment of diseases such as diabetes and hypertension with the aim of promoting positive health outcomes (Wu *et al.*, 2014:188). Patients are empowered when nurses value their participation and make them feel like partners on the healthcare team. Nurses could strengthen patients' functioning through sharing relevant knowledge (Macdonald, Stubbe, Tester, Vernall, Dowell, Dew, Kenealy, Sheridan, Docherty, Gray & Raphael, 2013:9; Kiragu & Mc Laughlin, 2011:421; Long & Gambling, 2011:268; Tveiten & Meyer, 2008:805). Nurses however, are considered the health information experts (Tveiten & Meyer, 2009:805).

## 2.4.2 Health communication

Health communication is defined as a communication approach used to inform and persuade individual and community decisions that improve health. Health communication is patient-centred (Schiavo, 2007:12). This patient-centred approach enables nurses to engage in face-to-face, one-on-one, nurse-patient interactions. Facts shown by a number of studies indicate that one-on-one interaction is mostly preferred by the healthcare providers at the healthcare centres, especially to manage chronic diseases such as diabetes mellitus (Varming, Torenholt, Møller, Vestergaard & Engelund, 2015:292; Serfontein & Mash, 2013:453; Taylor, Nicolle & Maguire, 2013:35; Golsäter *et al.*, 2010:26).

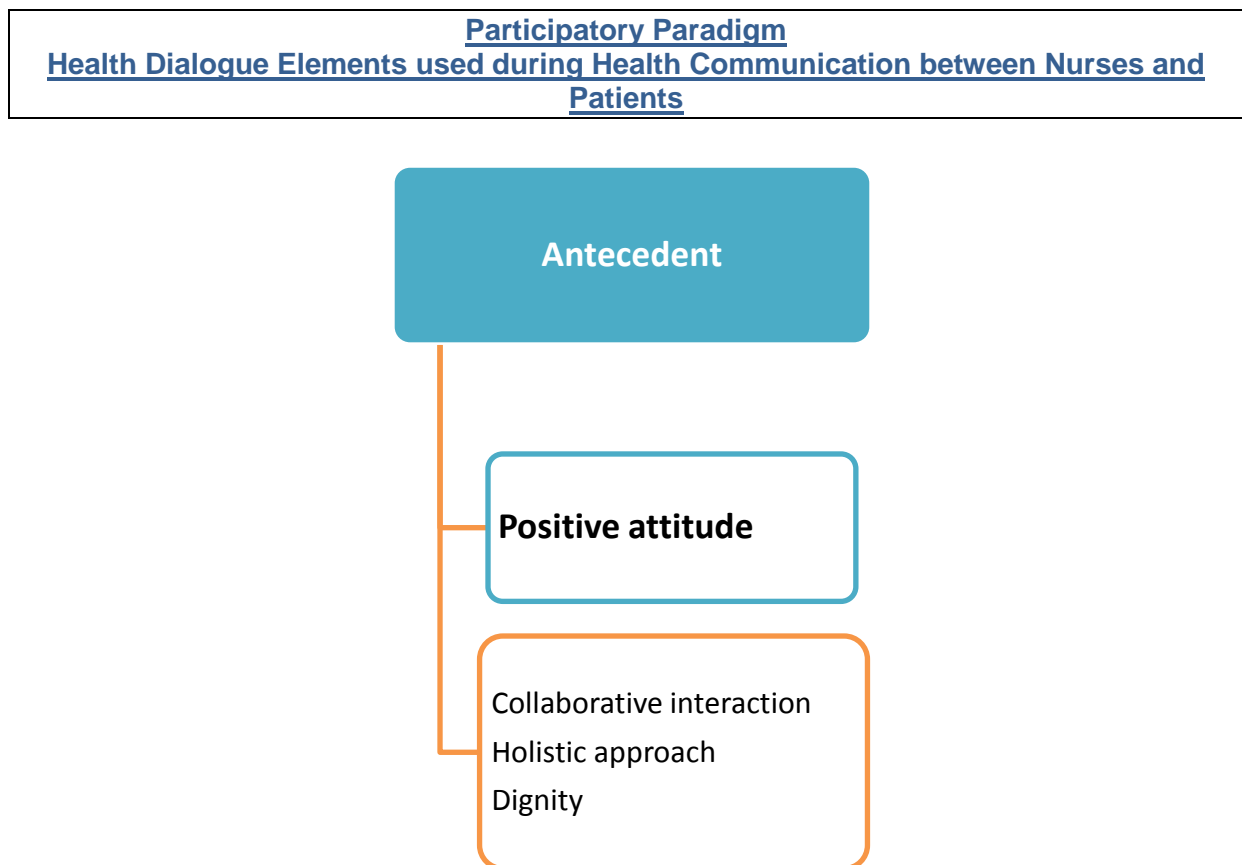
Since health communication is used to share health related information, health care providers (HCPs) are considered mostly involved in this type of communication (Schiavo, 2007:5). The environment used to share the information should be accommodative and favourable for all patients (Botes *et al.*, 2013:7; Schiavo, 2007:6). An accommodative environment enables nurses to understand the patients' needs, beliefs, values, taboos, attitudes, lifestyles, and social norms (Dube, Van den Broucke, Housiaux, & Rendall-Mkosi, 2014:15; Schiavo, 2007:6; Tanvatanakul, Amado & Saowakontha, 2007:174). Better understanding of patients' health needs might result in improved support and the provision of individualized health information (Kreps, 2015:2; South African Department of Health, Adult Primary Care guide, 2016-17).

Nurses acquire the necessary competencies to provide promotional health information and to disseminate health related messages (Rimal & Lapinski, 2009: 247). Within the realm of health communication, nurses disseminate health messages during public campaigns, at healthcare centres, and through various media (Domnariu, 2014:161; Mahmud *et al.*, 2013:2). Written material such as pamphlets, internet, telephone and media, or oral methods are appropriate for health communication (Sixsmith, Doyle, D'Eath, & Barry, 2014:7; Hesse, Nelson, Kreps, Croyle, Arora, Rimer & Viswanath, 2003:2).

Nurses also disseminate health messages to influence patients' knowledge, attitudes and beliefs in order to maintain healthy lifestyles (Schiavo, 2007:8). Individualized patients' needs enable nurses to provide information which is easily understood by patients (Smeltzer *et al.*, 2010:43; Schiavo, 2007:7).

### 2.4.3 Antecedents

Antecedents, as stated in Chapter 1, are incidents or events that have to occur before health dialogue could be characterized as an equal, symbiotic relationship where health communication is reciprocal, and a health message is delivered (Walker & Avant, 2011:167). Antecedents that will be discussed are related to a positive attitude, sensitivity and respect, and training (Refer to Figure 2.1 & 2.2).



**FIGURE 2.2: Antecedent related to positive attitude**

### **2.4.3.1 Positive attitude**

The word 'attitude' is described as the learned behaviour presented by an individual during interaction with other people, ideas, and objects (Dilie & Mengistu, 2015:1; Hugies & Quinn, 2013:84; Middleton, Nicolson & O'Neil, 2012:192; Quinn, 2001:236). Middleton *et al.* (2012:155), as well as Eagly and Chaiken (2003:1), defined attitude as a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour after being in direct contact with it.

Attitude represents a variety of preferences for objects, ideas, behaviours, and people (Forgas, Cooper & Crano, 2011:9). Attitude can either impact or predict behaviour (Forgas *et al.*, 2011:9). A person's behaviour and knowledge towards somebody or something can be influenced by his or her attitude towards that person or object (Dilie & Mengistu, 2015:1; Middleton *et al.*, 2012:153). A person's attitude communicates positive or negative feelings about another person, environment, or any matter. A positive attitude necessitates one to have a sense of self-pride, and self-respect to be able to address problems. (Mannaava, Durrant, Fisher, Chersich & Luchters, 2015:1).

Showing a positive attitude towards a problem enables a person to handle it in a caring and compassionate manner (Dilie & Mengistu, 2015:1). Displaying awareness of the importance of an issue or problem, a positive attitude towards the prevention and management of the same problem, and the relevant adequate knowledge, plays an important role in the management of health problems (Dilie & Mengistu, 2015:1). Displaying positive attitudes when rendering nursing care enable nurses to effectively convey health information relevant to patients' everyday life. Shared information is likely to enable a patient to adopt positive behaviour. A positive attitude contributes to improved health outcomes for the patient (Schwartz, Lowe & Sinclair, 2010:2).

The impact of a negative attitude by maternal healthcare providers' (MHCPs) when interacting with pregnant women was explored (Mannaava *et al.*, 2015:1). The aim of the study was to identify how their attitudes and behaviours, working in the formal sector in low and middle-income countries, affect pregnant women throughout the maternity period. The results of the study indicated that nurses' interaction with patients especially during communication negatively affected the management of pregnant women. The pregnant women felt that nurses displayed a negative attitude when communicating with them. Relevant studies indicate that communication plays an important role in improving the healthcare of patients in the healthcare facilities (Albreht, Dyakova, Schellevis & Van den Broucke, 2016:14; Tanvatanakul *et al.*, 2007:174; World Health Report, 2006:28).

The experiences of HIV positive patients on the attitudes of healthcare providers at a clinic in the Vhembe district were explored (Ndou, Maputle & Risenga, 2016:1). In addition, perceptions on the quality of healthcare were investigated. Following in-depth individual interviews with 25 HIV positive respondents, the conclusion was that although the quality of care regarding HIV infection control was poor, the healthcare providers displayed positive attitudes towards patients during consultations.

#### **2.4.3.1.1 Collaborative interaction**

Collaboration entails shared beneficial association that two or more people enter into, to achieve a common goal (South African Department of Health, Primary Healthcare Supervision Manual, 2009:5:17). Collaborative interaction encourages open, two-way communication between nurses and patients (McCance, 2015:73). In healthcare, nurses and patients collaboratively make decisions and share the responsibility to improve patient care (South African Department of Health, Adult Primary Care guide, 2016-17).

The South African National Patients' Rights Charter encourages collaboration during healthcare interactions. This Charter states that the relationship between healthcare providers and patients should be reciprocal (South African Department of Health, National Core Standards for Health Establishments, 2011:42; Meyer, Naude,

Shangase & van Niekerk, 2010:41). Reciprocal relationships enable nurses and patients to participate actively in health communication (Mehlsen, Heegaard & Frostholm, 2015:677). The consequence of this active participation is that patients express health issues freely and willingly (Botes *et al.*, 2013:3; Dirmaier *et al.*, 2013:2).

Collaborative interaction enhances active patient participation in the management of illness by allowing them to make informed decisions (Hsu, Lau, Huang, Ghiloni, Le, Gilroy, Abrahamson & Moore, 2016:60). Engaging in collaborative interaction enables nurses to learn more about their patients' healthcare needs (South African Department of Health, Adult Primary Care guide, 2016-17). Consequently, patients learn more about their health, health management, and healthy lives (Mahmud *et al.*, 2013:2). Two-way communication encourages a patient-centred approach. With this approach, both the nurse and the patient discuss health and risk factors. Through this discussion, the nurse is able to understand how the patient is affected by a specific lifestyle and health behaviour. Understanding the patients' context might help nurses to discuss health issues without creating an uncomfortable situation for the patient (Golsäter *et al.*, 2011:2574).

#### **2.4.3.1.2 Holistic approach**

A holistic approach to treatment incorporates the patients' physical, psychological, spiritual, and social aspects of life (Vasuthevan & Mthembu, 2013:1). Engaging the multidisciplinary team in the management of diabetic patients might enhance this approach to patient care. Addressing diabetes does not involve physical and medical management only; it also involves communication through counselling, interviewing, and other modes of care (Serfontein & Mash, 2015:454).

Changes in incorporating lifestyle strategies and multifactorial medical management in treating diabetes mellitus in Nigeria were explored (Ofori & Unachukwu, 2014:160). The results of the study indicate that patients who were treated using a holistic approach experienced positive health outcomes. The patients showed less risk of developing microvascular and macrovascular complications. The study



complemented the National guidelines of type 2 diabetes mellitus (South African Department of Health, Updated management of Type 2 Diabetes In Adults, 2014:14; Amod, Motala, Levitt, Berg, Young, Grobler, Heilbrunn, Distiller, Pirie, Dave, Huddle, Jivan, Paruk, May, Raal, Blom, Ascott-Evans, Brown, Mollentze, Rheeder, Tudhope, Van Rensburgh, Ganie, Carrihill, Rauff, Van Zyl, Randeree, Khutsoane, Joshi, Raubenheimer & Guideline Committee, 2012:S13; Butler, 2011:44).

According to the South African Department of Health, Updated management of Type 2 Diabetes in Adults (2014:14), Amod *et al.* (2012:S13), and Butler (2011:44) a holistic approach needs to be individualized according to patients' needs. Implementing a holistic approach prevents early development of acute complications and delays long-term complications of diabetes (Ofori & Unachukwu, 2014:166). The health issues which adult patients with type 2 diabetes require for self management and behavioural support to reduce the risk of developing diabetes complications in managing diabetes using a holistic approach were explored (Pal, Dack, Ross, Michie, May, Stevenson, Farmer, Yardley, Barnard & Murray, 2018:1). The aim of the study was to explore patient perspectives on unmet needs for self-management and support and the role of digital health interventions in adult patients with diabetes type 2. The results of the study indicated that adult patients with type 2 diabetes experienced problems in getting health information and patient-centred care they required to support self-management, thus their emotional, psychological and behavioural needs were poorly met. However, lack of integrated teams lead to early development of both acute and long-term complications (Ofori & Unachukwu, 2014:166; Amod *et al.*, 2012:S14).

#### **2.4.3.1.3 Dignity**

Dignity is one of the ethical objectives included under the nurses' code of practice (Meyer *et al.*, 2009:145). Dignity encompasses the feelings, thoughts, and behaviour of people regarding the significance or value of themselves and others (Royal College of Nursing UK, 2008:8). In the healthcare setting, dignity is defined as the care provided to patients in any healthcare institution which supports and promotes

and does not undermine a person's self-respect and worth (Clark, 2010:348; Royal College of Nursing UK, 2008:8).

Nurses are responsible to treat patients with dignity, respect, to maintain privacy, and to treat the patients in clean and safe environments (South African Department of Health, National Core Standards for health establishment abridged version, 2011:6; South African Department of Health, National Core Standards for health establishment, 2011:18; Royal College of Nursing, 2008:8). Nurses also need to pay attention to patients, be honest, open and warm, acknowledge the patients' right to choose, as well as listen for, and identify patients' feelings (South African Department of Health, Adult Primary Care guide, 2016-17). Furthermore, nurses should treat patients with courtesy and empathy and refrain from verbal abuse (South African Department of Health, National Core Standards for health establishment, 2011:18). Treating patients with dignity boosts their self-esteem and enable them to be confident, feel comfortable, in control, appreciated, and able to make own decisions (Ferri, Muzzalupo & Lorenzo, 2015:1).

Dignity is promoted in healthcare settings through interactive communication aimed to provide truthful adequate information as well as to protect the patients (Ferri *et al.*, 2015:2). Patients' perceptions on the maintenance of dignity in the hospital setting in an Italian general hospital were explored (Ferri *et al.*, 2015:1). The study included 100 patients selected from different medical and surgical wards. The results of the study were that dignity was not maintained according to the patients' expectations. Unfortunately, patients stated that communication between nurses and patients as well as the sharing of information was lacking. However, patients' privacy and respect during procedures were maintained by nursing staff. In general, the application of guidelines stated in this discussion should lead to patients feeling respected and valued and make it possible for patients to choose those issues they want to deal with when supported by nurses (South African Department of Health, Adult Primary Care guide, 2016-17).

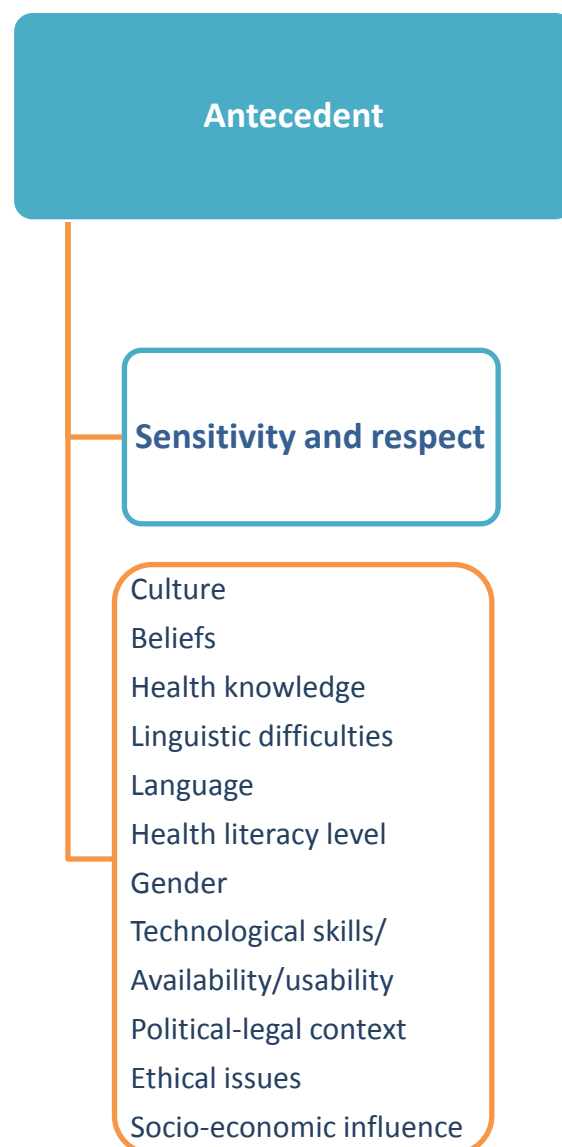
### **2.4.3.2      *Sensitivity and respect***

Respect plays an important part in healthcare settings. Respect is one of the ethical attributes nurses should display when treating or managing patients (Meyer *et al.*, 2009:145; Muller, 2009:10; Jooste, 2016:154). Showing respect when communicating enables nurses to build rapport with their patients. Respect and rapport help nurses to treat patients as unique individuals regardless of their ethnic group, health beliefs, personal attributes, culture, gender, nature of their health problems, literacy level, and socio-economic status (Vasuthevan & Mthembu, 2013:40). Nurses are responsible for providing healthcare services equally to all patients without any form of discrimination (Meyer *et al.*, 2010:145). Nurses respect patients by not being prejudiced, but by being unselfish, acting in good faith in the interest of the patients, and by treating them as valuable individuals (Jooste, 2016:151; Middleton *et al.*, 2012:175; Meyer *et al.*, 2010:145; Muller, 2009:10). Patients who feel respected feel that they are being listened to during communication, valued, cared for and accepted for what they are (South African Department of Health, Adult Primary Care guide, 2016-17). Ethical guidelines guides nurses on the ways of respecting patients by protecting their privacy and confidentiality (Jooste, 2016:151; Meyer *et al.*, 2010:145).

The Patients' Rights Charter emphasizes that nurses need to respect patients by maintaining confidentiality and privacy of their information (Jooste, 2016:151; Meyer *et al.*, 2010:145). According to Jooste (2016:151) nurses need to allow and encourage patients to make informed choices in managing their illnesses. For the patients to make informed decisions, nurses should provide them with information regarding their illnesses, using layman's terms, to enable them to understand the medical terms and procedures and the treatment being given to them (Jooste, 2016:15). Patients' understanding tend to result in an effective communication between the nurses and patients (South African Department of Health, Adult Primary Care guide, 2016-17). Effective communication results in nurses understanding patients' views and considering them as well as understanding the patients' experiences about their illnesses (Middleton *et al.*, 2012:175).

Effective communication is important in ensuring patient compliance, accurate diagnosis, and conclusive result. Taylor *et al*, (2013:36) identified the problems that nurses face in managing patients from different cultures in the United Kingdom. The results of the study indicated that people from different cultures struggle to commit to treatment prescribed by nursing staff at healthcare services. Remedies not recommended by the healthcare services are often used.

**Participatory Paradigm**  
**Health Dialogue Elements used during Health Communication between Nurses and Patients**



**FIGURE 2.3:** Antecedent related to sensitivity and respect

#### **2.4.3.2.1 Culture**

Culture is a regularly changing acquired way of life of a social group, shared among the group, and transferred to other people in the same group (Van Vuren, 2012:204; Uys & Middleton, 2014:156; Du Toit & van Staden, 2009:19). The acquired behaviour that is learned and shared among the social group can include, among others, attitudes, values, beliefs, norms, knowledge, decisions, art, morals, laws, customs, and material objects (Van Vuren, 2012:204; Uys & Middleton, 2014:156; Du Toit & Van Staden, 2009:19). However, for culture to be continuously learned and practiced, continuous communication between people of the same social group is required (Du Toit & Van Staden, 2009:21).

Health norms that align with patients' culture enable nurses to better understand and respect patients' needs and behaviours (Van Vuren, 2012:205). Therefore, nurses need to know the essential attributes of the patients' culture to be able to render optimal healthcare (Van Vuren, 2012:205). Provision of best possible nursing care necessitates clear communication and mutual understanding (Du Toit & Van Staden, 2009:43). Nurses working at healthcare facilities must be able to learn and understand their patients' culture in order to be able to communicate with them in a culturally acceptable manner (South African Department of Health, Adult Primary Care guide, 2016-17; Du Toit & Van Staden, 2009:43; South African Department of Health, Primary Healthcare Supervision Manual, 2009:5:77). This will enable patients to feel respected and valued (Van Vuren, 2012:212).

Healthcare providers' perceptions in caring for people from ethnic minorities with poor or no English language skills when accessing healthcare were explored (Taylor *et al.*, 2013:36). Debates related to problems experienced by migrant patients in the United Kingdom (UK). The debates specifically focused on migrant patients' problems when accessing healthcare, the effects of language barriers, low literacy, anxiety, and lack of understanding, general attitudes, gender attitudes and health beliefs, and the retention of information.

#### **2.4.3.2.2 Beliefs**

Beliefs are defined as sets of positive or negative feelings or general rules of specific views that are created by individuals and assumed to be true based on the specific rationale or reason (Uys & Middleton, 2014:313). Beliefs arise from memories of events that the individual went through in the past (Uys & Middleton, 2014:313). People use beliefs to make up for the painful emotional memories (Uys & Middleton, 2014:313). Positive beliefs are expressed to describe the expectations of positive behaviour, while negative beliefs are expressed to limit alternatives and behaviour. Patients' feelings about the care rendered at healthcare institutions influence their beliefs about the care. The health belief model explained the reasons patients accepted or rejected the health services (Uys & Middleton, 2014:313). The health belief model explored the debates on conditions that may encourage the patients to take preventive measures or accept treatment for diseases. The Model also explains the reasons that make the patient want to accept treatment (Uys & Middleton, 2014:313). Patients accept health services if they believe that they are at risk of developing a specific condition. If the risk is serious, the risk can be reduced if they change a specific behaviour and barriers to specific behaviour can be managed and overcome (Uys & Middleton, 2014:313; Meyer *et al.*, 2010:17).

The reasons why the attitudes and behaviours of healthcare providers contribute to patients rejecting or accepting healthcare services were explored (Mannava *et al.*, 2015:2). The aim of the study was to explore the type of beliefs the healthcare providers instill in pregnant women. The results of the study showed that the pregnant women indicated that healthcare providers' beliefs, societal cultural beliefs impacted negatively on their beliefs about the healthcare provided by healthcare providers. However, the patients' right to be treated humanely is violated (Mannava *et al.*, 2015:2). The reasons for type 2 diabetic patients' beliefs on the importance of adhering to antidiabetic treatment were also explored (Guénette, Lauzier, Guillaumie, Giguère, Grégoire & Moisan 2015:413). The aim of the study was to elicit patients' beliefs about taking their oral antidiabetic treatment as prescribed to inform the development of sound adherence-enhancing interventions. The results of the study were that providing the patients with correct information about the actions of

their treatment, influence adherence behaviours and the positive beliefs about the treatment.

The two abovementioned studies emphasize the the healthcare providers beliefs and poor communication result in patients and healthcare providers poor interaction. The studies also emphasize the importance of communication between the nurse and the patients. In addition, both studies indicate that the provision of health information and the maintenance of nurse-patient relationships improve the health outcomes of patients.

#### **2.4.3.2.3 Health knowledge**

Health knowledge refers to understanding and communicating health related matters to others and to share information that they might need to attain good health (Vasuthevan & Mthembu, 2013:53; Chinn & Kramer, 2008:2). The nurses should update their knowledge and be able to provide patients with relevant information to promote the patients' health (Meyer *et al.*, 2009:19). Furthermore, providing updated information to patients encourages patients to feel empowered and enables the patients to take decisions on how to manage their diseases (Vasuthevan & Mthembu, 2013:71; Meyer *et al.*, 2009:19).

The provision of relevant information regarding the patient's condition results in changed behaviour, changes in self-care activities, improved physical activity and the correct way of taking medication (Serfontein & Mash, 2013:453). An assessment was done to determine the impact of diabetes patients' knowledge to manage the condition. Patients' satisfaction with the healthcare information provided, the way information was provided, educational material such as flipcharts, communication style of health promoters, and others were investigated. It seemed that patients gained, retained, and recalled information given to them, and were encouraged to engage in good self-care (MacDonald *et al.*, 2013:2).

The difference in perceptions on diabetes between the healthcare providers and patients, regarding self-care, in Taiwan were also explored (Wu *et al.*, 2014:187). The barriers to patients' participation in health knowledge and the patients' information needs in managing diabetes versus the nurses' approaches to providing diabetes information were observed. The results of the study indicated that the difference in perceptions made it difficult for the nurse to equip the patients with the necessary health knowledge. Nurses should be able to manage patients effectively if they know who the receivers of the information are and what their health literacy level on the topic under discussion are.

For the health information to have an impact on the respondents, nurses should know which methods are most suitable to convey the information to the patients (Kent, Melkus, Stuart, Mckoy, Urbanski, Boren, Coke, Winters, Horsley, Sherr & Lipman 2013:80; Shue, O'Hara, Marini, McKenzie & Schreiner, 2010:362). Positive outcomes when one-on-one patient education was given by a nurse who visited diabetic patients in rural areas of Korea were noted (Ko, Lee, Kim, Kang & Kim, 2011:429). Two of the outcomes were that patients' knowledge about diabetes and self-care management improved. Similarly, an assessment of the effect of a self-management programme for patients with chronic conditions showed that using such a programme could improve patient active participation, quality of life, psychological distress, and self-management skills (Turner, Anderson, Wallace & Bourne, 2014,: 213).

#### **2.4.3.2.4    *Linguistic difficulties***

Linguistic difficulties can be viewed as provision of healthcare to patients whose first language is not the same as the healthcare providers (Meuter, Gallios, Segalowitz, Ryder & Hocking, 2015:1). The increasing number of migrant patients and healthcare providers increases the risk of poor health outcomes (Meuter *et al.*, 2015:1). Poor health outcomes may result as patients and healthcare providers speak different languages (Meuter *et al.*, 2015:1). Linguistic differences result in unequal provision of healthcare (Meuter *et al.*, 2015:1).



Wrong diagnosis and high defaulter rate of patients can be the result of poor communication and understanding of migrant patients by nurses (Numeroso, Benatti, Pizzigoni, Sartori, Lippi & Cervellin, 2015:111). Communication between doctors working in a hospital casualty in Parma and patients was investigated (Numeroso *et al.*, 2015:112). Nearly one fourth of the patients visiting this hospital experienced linguistic barriers. The patients were neither elderly, nor critically ill, and came from western Africa and Southern Europe.

Within the South African context, the manner of communication between mostly Setswana speaking patients who are on antiretroviral treatment and an Afrikaans speaking pharmacists in a multicultural setting was investigated (Watermeyer & Penn, 2009:108). Irrespective of linguistic barriers, using different communication approaches according to the patients' level of understanding can increase the patients' treatment compliance.

The way the government sector and private sector provided health information to their multilingual patients, using different resources in South Africa as it is a multilingual country, was also studied (Thutloa & Strout, 2012:118). The conclusion was that even though patients speak different languages, 86 per cent of the respondents preferred to receive health information in English, and 72 per cent of the patients who participated found the information they received from their healthcare providers through different sources useful.

The abovementioned research studies complement each other. The results showed that even if there are linguistic difficulties, the accessibility and availability of health communication and the way health information is constructed, considering the level of patients understanding, can improve health knowledge and enhance healthcare delivery systems.

#### **2.4.3.2.5 Language**

Language is defined as a system of characters, such as words and signs, used by individuals to communicate thoughts or feeling to one another (Mosby's Medical Dictionary, 2009:1054). Language can be spoken or written or can also be expressed through body movements (South African Concise Oxford Dictionary, 2009:651). Nurses work in a multilingual society. For the nurses to function effectively in providing patient care there needs to be an effective communication between them and their patients (South African Department of Health, Adult Primary Care guide, 2016-17; Dennison, Himmelfarb & Hughes, 2011:177). Language problems may lead to non-compliance with medication and other treatment modalities, patients won't be satisfied with the care received (Dennison Himmelfarb & Hughes, 2011:178).

Effective communication between nurses and patients is maintained by knowing and speaking the patients' language (Levin, 2011:11; Dennison *et al.*, 2011:178). However, using the language appropriate to the patients' culture, literacy level, and understanding improve patients' satisfaction about the healthcare received (Uys & Middleton, 2014:179). In addition, the patients become more actively involved in their care (Dennison *et al.*, 2011:178).

Protocols in a healthcare centre encourage the use of the patients' language and a straightforward language during consultation in order for the patients to understand what is said (South African Department of Health, Adult Primary Care guide, 2016-17; Vasuthevan & Mthembu, 2013:56).

#### **2.4.3.2.6 Health literacy level**

Health literacy is defined differently by different people. Parker, Barker, Williams and Nurss (1995:539) defines health literacy as an individual's skill to read health related material such as prescriptions, appointment cards, medication labels, and directions for home healthcare. In addition, Nutbeam (2000:264) defines health literacy as an

individual's skill used to read written health related material and to understand and use information in ways that promote and maintain positive health outcomes.

Patients with low health literacy level experience problems in understanding educational material, reading appointment cards, medication labels, nutritional labels, and understanding the consequences of unhealthy behaviour. In addition patients may also experience difficulty in communicating with their healthcare providers (Dennison *et al.*, 2011:177).

The changes in advice-giving, advice-seeking, understanding, awareness, and advice uptake between a group of type 2 diabetes patients and healthcare providers were explored (Long & Gambling, 2011:269). The debate covered the manner in which diabetes patients obtain in-depth knowledge of diabetes, the strategies the nurse use in building confidence in the diabetic patient during an on-going, behavioural change intervention, and the potential to enhance health literacy among patients type 2 diabetes.

Two non-medical tele-carers, with the support of a diabetes specialist nurse, called patients at home at prescribed intervals. Due to the intervention more than 90 per cent of patients showed that they were knowledgeable about diabetes, able to manage it, and able to keep their blood sugars within normal ranges. The more patients become health literate the more the patients participate actively in self-management. Self-management increases positive health outcomes (World Health Organization, 2009:4).

#### **2.4.3.2.7 Gender**

Gender inequality is dominant in most countries due to an evolving patriarchal rule (Figuerola, Poppe, Carrasco, Pinho, Massingue, Tanque & Kwizera, 2016:555). Research shows that men still consider themselves as being bosses, authoritarians, and decision makers. While women on the other hand consider themselves as submissive, passive, and respectful (Comrie-Thomson, Tokhi, Ampt, Portela,

Chersich, Khanna & Luchters, 2015:S181). However, even though men use their authority over women, they are gradually adapting to change.

Jefferson, Bloor, Birks, Hewitt and Bland (2013:246) suggest that gender of healthcare providers plays an important role in managing patients. The study suggests that female healthcare providers use more patient centred communication styles to encourage treatment compliance, than their male counterparts. Men's' views on the importance of involving their partners on HIV information were explored. Men do change their authoritative role to discuss HIV prevention methods with their female partners (Figueroa *et al.*, 2016:555). Involving men in maternal and child health increases women and child health outcomes (Comrie-Thomson *et al.*, 2015:S177).

#### **2.4.3.2.8 Technological skills availability and/or usability**

Technology plays an important role in human life. In healthcare it is used to promote positive outcomes by promoting health and preventing disease in the community (South African Department of Health, e-Health Strategy, 2012:22). When used in healthcare centres, information communication technology is explained in different concepts and definitions. Concepts used in healthcare areas are e-Health and m-Health. e-Health is defined as the utilization and application of information and communication technologies (ICTs), in order to support health and health related fields, such as managing patients, health literature and health education, pursuing knowledge and research, educating students, disease surveillance, and the monitoring of public health (South African Department of Health, e-Health Strategy, 2012:7 ).

The World Health Organisation (2012:1) encourages the use of e-Health to organize peoples' behaviour, deliver healthcare services, and provide information through different technologies. The purpose of e-Health is to attain a well-functioning, patient-centred, electronic national health information system (South African Health Review, 2014/15:36). Healthcare providers need to be capacitated to be able to make inputs, access, interpret, and analyze patient's information (South African Department of

Health, e-Health Strategy, 2012:28; Loveday, Smith, Monecelli & Karrim, 2008:14). Trained nurses and other healthcare providers should use e-Health to improve their ability to access information at the point of care, to exchange information with other health providers, monitor and trace patients more effectively and access clinical knowledge, evidence and expertise to capacitate themselves (South African Department of Health, e-Health Strategy, 2012/13- 2016/17).

The use of e-Health technologies enables nurses to keep patients records updated. Patients also benefit in that health care providers can easily access their health information. m-Health is one of e-Health technologies used in healthcare centres. m-Health is a mobile technology used in the healthcare centres to improve patients' outcomes (Dobson, Whittaker, Jiang, Sheperd, Maddison, Carter, Cutfield, McNamara, Khanolkar & Murphy, 2016:2). It is used to improve healthcare delivery in promoting health information, especially in patients' living in rural areas (Dobson *et al.*, 2016:2; Fottrell, Jennings, Kuddus, Ahmed, Marrison, Akter, Shaha, Nahar, Nahar, Haghparast-Bidgoli, Azad Khan, Costello & Azad, 2016:3). m-Health encompasses the usage of mobile technology in the form of the interactive voice response calls, short message serves (SMS) or text messaging, and smart phones to influence behavioural change and to managing the patients' condition (Dobson *et al.*, 2016:2; van Dyk, 2014:1285). m-Health influences behavioural change and increases the treatment adherence rate in patients with chronic diseases such as diabetes (Dobson *et al.*, 2016:2; Fottrell *et al.*, 2016:3).

SMSs are used to remind patients about taking treatments, providing educational or supportive information to improve on lifestyle or self-care, and reminding patients about appointment dates for follow up medication and screening programmes. These SMS's are programmed automatically by healthcare providers to provide the abovementioned information. Interactive voice response (IVR) is used to interact with patient using voices through their landlines (the structured recorded message is used, and the patient uses the touch-tone keypad or voice recognition technology to communicate), while smart phones uses the videos, graphical screens, audio, and internet access (Piette, List, Rana, Townsend, Striplin & Heisler, 2012:2013).

In the South African Department of Health, technology is used to train and provide skills to healthcare providers through satellite broadcasting, and as a communication tool to provide educational information in the clinics through videos and via mobile phones. Healthcare providers use technology to discuss the conditions of patients and to refer patients for further management. In the community, health information is provided through community radios, television, and web sites (South African Department of Health, e-Health Strategy, 2012/13-2016/17:24). The number of South Africans accessing the internet is low. However, most South Africans use cell phones. Technology is used to complement healthcare rather than substitute healthcare (Health System Trust update number 53, 2000:16).

At a primary healthcare setting, information technology is used to improve health literacy and to empower both nurses and patients. Empowered patients are able to manage their health (Mahmud *et al.*, 2013:1). The disadvantage of information technology is that it is costly, and becomes quickly outdated. However, information technology needs to be updated timeously with new health information in order to meet the patients' needs (Mahmud *et al.*, 2013:3). In addition, most of the information technologies do not allow the active nurse patient participative approach that is encouraged by the protocols of the Department of Health (South African Department of Health, Updated management of type 2 diabetes in adults, 2014:74; South African Department of Health, Primary Health Care Supervision Manual, 2009:5:79).

#### **2.4.3.2.9 Political-legal context**

There is an increase in chronic non-communicable diseases in South Africa (South African Health Review, 2012/13:116). The South African government has put policies in place such as strengthening tobacco control, enforcing regulations relating to food, and implementing policies to reduce alcohol use. Comprehensive and integrated actions have been developed to prevent and control non-communicable diseases (South African Health Review, 2012/13: 116). A multi-sector approach has been adopted, including at policy and implementation levels, such as community interventions that target those at risk and those already affected to prevent

complications. Risk assessment tools applied at community level identify those at risk and can be used by less qualified healthcare providers such as community health workers (South African Health Review, 2012/13:116).

The national health Act 61 of 2003 emphasises the provision of good quality health services. Structures to monitor the compliance of health establishments were developed through the development of the National Core Standards assessment guidelines (South African Department of Health, National Core Standards for Health Establishments, 2011:8). According to the patients' rights charter, every person has the right to access information they need to manage their illnesses (South African Department of Health, National Core Standards for Health Establishments, 2011:18).

The regulations relating to the scope of practice of persons who are registered or enrolled under the Nursing Act, 1978 (R2598) indicates the duty of nurses in regard to the prevention of disease, promotion of health, providing information, and counselling of patients on their diseases. The above is managed through health dialogue between the patients and nurses either at the primary healthcare clinic level or through the media.

#### **2.4.3.2.10 *Ethical issues***

Some of the ethical elements of health communication are that nurses should avoid controlling the conversation, provide relevant and correct information, and respect the patients' independence (Hove, 2014:134). The patients' autonomy should be respected by refraining from deceptive, misleading, manipulative, or coercive methods. Patients should be informed about the threats or benefits of their conditions (Hove, 2014:134).

#### **2.4.3.2.11 Socio-economic influence**

Diabetes poses a public health threat worldwide (World Health Organisation, 2016:13; South African Department of Health, Updated management of type 2 diabetes, 2014:6). In 2014, four hundred and twenty-two million adults worldwide were estimated to have diabetes (World Health Organisation, 2016:13). Ninety percent of adults diagnosed with diabetes in South Africa have type 2 diabetes (South African Department of Health, Updated management of type 2 diabetes, 2014:6). Managing diabetes incurs lots of financial expenses because of its complications (South African Department of Health, Updated management of type 2 diabetes, 2014:6; Tol, Sharifirad, Shojaezadeh, Tavasoli & Azadbakhd, 2013:34).

Diabetes as a chronic condition affects the physical, mental, personal, and social performance of the individual person (Tol, Sharifirad, Eslami, Shojaezadeh, Alhani & Tehrani, 2015:51). It is the nurses' responsibility to assess the different aspects of health and the quality of life of diabetic patients (Tol *et al.*, 2015:51). The financial status, or working plan, of the diabetic patient affects their treatment adherence and compliance (Hill, Nielsen & Fox, 2013:68). However, the inability of the diabetic patients with low income or no income to buy the recommended food leads to a poor management of diabetes (Steyl & Phillips, 2014:4). The clinic appointment dates, which coincide with patients' work schedule, also make it difficult for the diabetic patients to comply with treatment, thus patients end up defaulting treatment (Steyl & Phillips, 2014:4).

An important reason for defaulting is poverty. Despite the fact that the National Patients' Rights Charter states that healthcare facilities should be accessible, patients still default on their treatment (Muller, 2009:15). In South Africa, patients' access to healthcare clinics are free of charge, however, the means of visiting the clinic are expensive (Goudge *et al.*, 2009:2). These expensive means of transport result in the patients not going for follow-up visits at the clinics (Goudge *et al.*, 2009:2). Other factors leading to defaulting are the shortage of medication and equipment (Goudge *et al.*, 2009:2).



#### **2.4.3.2.12 Tailored health message**

A tailored health message refers to a communication method or a strategy used to convey a message according to an individual's identified needs (Dijkstra, 2016:8). Tailored health messages are delivered according to the patient's preferences, knowledge level, and it considers fears or barriers on behavioural change (Skelton, Waterman, Davis, Peipert & Fish, 2015:78; Smit, Linn & van Weert, 2015:25).

Tailored health messages are disseminated using a face-to-face, written format such as images, drawings or video presentations, as well as the internet and cell phones (Skelton *et al.*, 2015:78). Using tailored health information enables the patient to be interested in processing and recalling the information (Smit *et al.*, 2015:25). These messages focus on motivating patients to engage in self-care and reminding patients on the goals they have set in managing the diseases (Kim, Oh, Steinhubl, Kim, Bae, Han, Kim, Lee & Kim, 2015:2). When disseminated through the mobile phone, a tailored message can be used to set a goal and to change behaviour (Kim *et al.*, 2015:2).

#### **2.4.3.3 Training**

One of the aims of the South African Department of Health Primary Health Care Supervision Manual is to encourage the training and development of all the staff in order to improve the delivery of care (South African Department of Health, Primary Health Care Supervision Manual, 2009:5). The training is complemented by the updated protocol on the management of type 2 diabetes in adults'. The protocol states that nurses working with diabetic patients need to be trained on diabetes. This type of training enables the nurse to provide the correct information to the patients (South African Department of Health, Updated management of type 2 diabetes in adults at the primary care level, 2014:12).

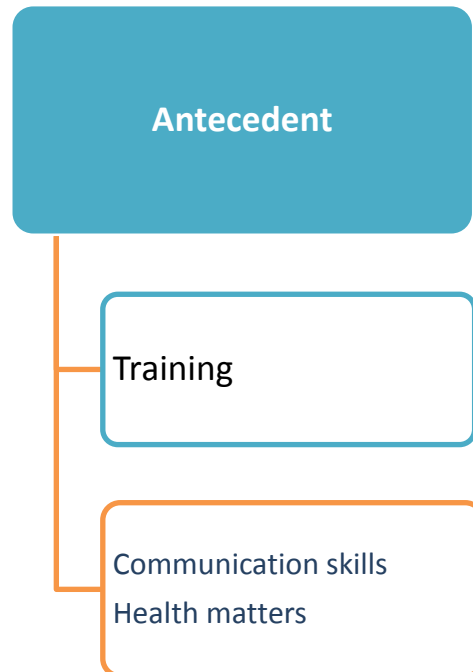
The South African Department of Health, Primary Health Care Supervision manual (2009:5:80) and the South African Department of Health, Updated management of type 2 diabetes in adults' guidelines (2011:72) focus on ensuring that nurses have information on the diseases that the patients are suffering from. The emphasis is based on training nurses skills used in the imparting of information that the patients need regarding the disease.

To emphasize the importance of training among healthcare providers, Management of type 2 diabetes in adults (2014:13) and the South African Department of Health, Primary Health Care Supervision Manual (2009:5.78) indicate that only a dedicated well trained and knowledgeable healthcare provider should give education to patients with chronic diseases. To reiterate on the importance of training Mash *et al.* (2015:625), Botes *et al.* (2013:8), and Mash, Rhode, Zwarenstein, Rollick, Lombard, Stein and Levitt (2014:990) provided training to healthcare promoters, who were recruited, to provide education to diabetic patients in Western Cape province.

Before healthcare providers could provide group diabetes education, they were given relevant information. Included in the training were communication styles that should be included when providing education to the patients. Incorporating these communication styles will enable a two-way communication approach.

Few studies that assess if nurses have the necessary knowledge and skills to engage patients in managing their health concerns during communication were located. Health dialogue is one communication approach that requires trained nurses in order to engage patients in the self-management of health issues (Tveiten & Meyer, 2008:804).

**Participatory Paradigm**  
**Health Dialogue Elements used during Health Communication between Nurses and Patients**



**FIGURE 2.4: Antecedent related to training**

#### **2.4.3.3.1 Communication skills and strategies**

Communication is a central aspect in healthcare delivery and promotion (Corcoran, 2013:2). Effective communication is complex, should be well designed, monitored, and should allow people to become competent (Corcoran, 2013:2). A number of studies reported on the effectiveness of health-related communication (Mahmud *et al.*, 2013:2; Schwartz, Lowe & Sinclair, 2010:2; Corcoran, 2013:2). In its diversity, health communication brings together and uses significant theories, concepts, and methods from different areas of communication science (Manirescu *et al.*, 2013:3). Healthcare providers need training on how to communicate and apply the skill during health communication (Manirescu *et al.*, 2013:2). The South African Department of Health, Adult Primary Care guide (2016-17) describes communication skills that nurses should integrate when communicating with patients visiting primary

healthcare clinics. These skills include listening, discussion, empathy, respect, summarizing, and nonverbal communication.

Communication is a process used by an individual to relate to another person by sending or receiving the message using different types of strategies (Van Vuren, 2012:214; Du Toit & Van Staden, 2009:138; Rimal & Lapinski, 2009:247). Communication can be verbal, non-verbal, and visual (Van Vuren, 2012:214). Information can be transmitted directly, in the form of a face-to-face conversation, or non-verbal, in a written form or using gestures (Van Vuren, 2012:214; Du Toit & Van Staden, 2009:138).

Communication is a fundamental element of nursing. Health communication includes different methods of communication to promote health. Such methods include human and mediated methods (Van Vuren, 2012:214; Manirescu *et al.*, 2013:1). Human methods have been discussed in Chapter 1. The mediated methods have been discussed under technological aspects.

The levels used in health communication include intrapersonal, interpersonal, group, organizational, and societal levels (Manirescu *et al.*, 2013:1). An interpersonal level includes communication between two people. The nurse-patient relationship is facilitated through this type of communication (Manirescu *et al.*, 2013:1). A group organization level involves a group of people in a discussion. The group organization level is by the nurses during group health education, addressed at patients in a facility waiting area. At a societal level, the society and community communicate by means of social media, telephone conversations, SMS messages, the internet, and television (Van Vuren, 2012:214).

Face-to-face verbal communication between nurses and the diabetic patients promotes management of the patients' conditions and conveys information required by patients (Macdonald *et al.*, 2013:2). For the face-to-face communication to be effective, nurses need to listen attentively to the patients, discuss the facts requested by patients, and allow the patients to summarize the discussion (South African Department of Health, Adult Primary Care Guidelines, 2016-17). On the other hand, the patients need to be prepared to receive information (South African Department of

Health, Adult Primary Care guide, 2016-17). It is through this two-way face-to-face communication that the nurse is able to identify the nonverbal behaviour of patients (South African Department of Health, Adult Primary Care guide, 2016-17).

Face-to-face communication can produce negative outcomes if it not used effectively (Macdonald *et al.*, 2013:2). Nurses at the healthcare clinics use checklists to assess the information given to the patients (Macdonald *et al.*, 2013:2). Paying more attention to the checklist than the patient can result in poor outcomes. Patients need nurses to pay attention, offer information, encourage them to find solutions to address identified problems, and to support them (South African Department of Health, Adult Primary Care guide, 2016-17).

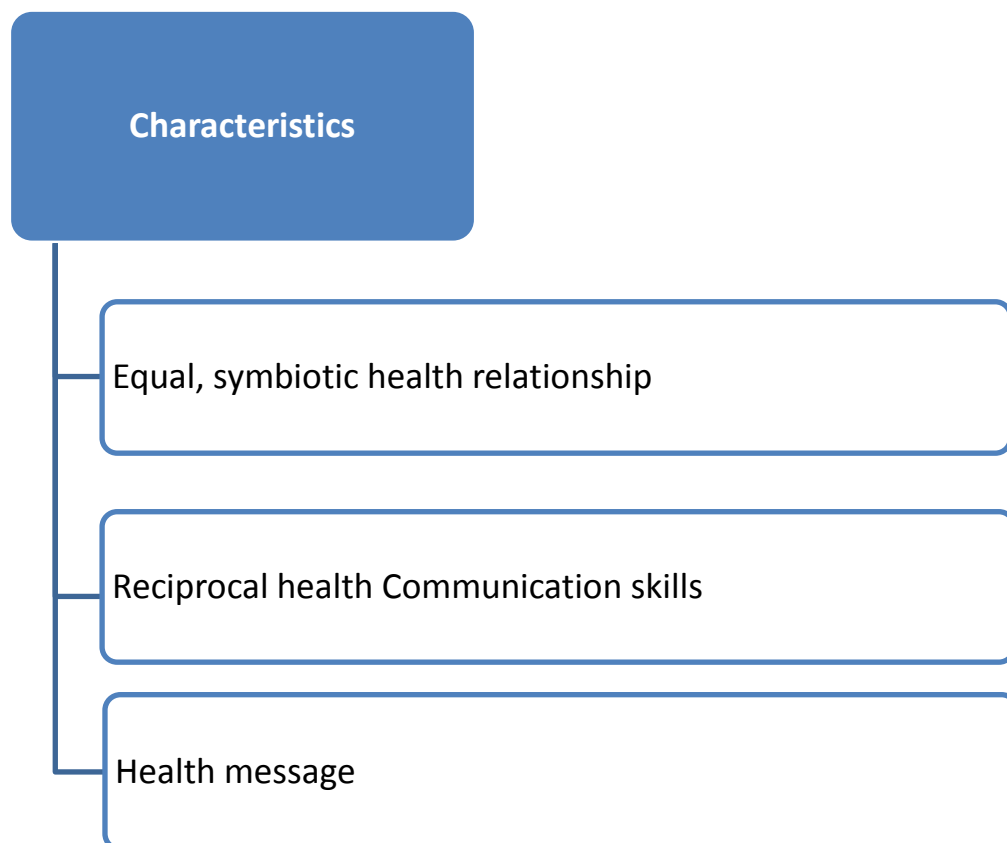
#### **2.4.3.3.2 Health matters**

The impact the South African Department of Health, Adult Primary Care guide (2016-17) had on nurses' knowledge related to chronic disease management was explored. The aim of the study was to assess the knowledge of nurses working with chronic patients in Western Cape Primary Healthcare Clinics (PHCs) six months after being trained using the Primary Care 101 guideline and training manual (Naidoo *et al.*, 2014:3). Even though less nurses completed the survey after the first stage, the study showed a slight improvement in knowledge on management of chronic conditions such as diabetes and hypertension (Naidoo *et al.*, 2014:8).

The more nurses become informed the more they are able to provide relevant information to patients'. Providing relevant content might assist in the management of disease as patients should be able to make informed decisions (Ko *et al.*, 2011:430). Bickmore and Giorgio, (2004:1) emphasize the importance of having health related knowledge in the field the patient will need knowledge about.

#### 2.4.4 Characteristics

Characteristics, as stated in chapter 1, are important aspects that clarify concepts (Walker & Avant, 2011:167). The concept clarified in this chapter is health dialogue. Characteristics that will be discussed are, an equal symbiotic health relationship, reciprocal health communication skills, and health message (Refer to Figure 2.1-2.4.4).



**FIGURE 2.5: Characteristics of health dialogue**

##### **2.4.4.1 *Equal symbiotic health relationship***

Symbiosis is referred to as a type of relationship between two people in which they live together or depend on each other psychologically. In this section, the researcher will discuss the ways in which nurses build a health relationship with diabetic patients. To have an equal symbiotic health relationship, the nurses should

relinquish the paternalistic role (Wermeling, Thiele-Manjali, Koschack, Lucius-Hoene & Himmel, 2014:1). The patients should also relinquish the role of receiving information without asking any questions or being involved in their healthcare (Wermeling *et al.*, 2014:2).

Nurses and patients should consider themselves partners (Harding, Wait & Scrutton, 2015:9). The nurses are the first contact when visiting healthcare institutions (Pham & Ziegert, 2016). It is through this contact that the nurse-patient relationship is built (O'Neil, Jacka, Quirk, Cocker, Taylor & Oldenburg, 2015:1). The patient depends on the nurse to provide information in regard to the management of diabetes (Macdonald *et al.*, 2013:2). Likewise, the nurse depends on the patient to provide the correct information on the condition the patient is suffering from in order to provide the patient with the correct diagnosis and management of the condition (Macdonald *et al.*, 2013:2). Through this dependency, both parties become involved in interactive communication (Macdonald *et al.*, 2013:2).

#### **2.4.4.2      *Reciprocal health communication***

Nurses are responsible to provide patients with relevant information. Therefore, they should be able to incorporate what they know with what they are practicing in real-life situations. According to Petraglia (2009:176) learning facts without being able to apply and contextualize those facts is a waste of that knowledge. During the management of chronic patients', nurses providing information about the management of the condition can use persuasion, narration, and dialogue to ensure that patients have authentic information which they will use in the managing of their illnesses. However the patient must be able to communicate about the disease he or she has. The emphasis is on nurses' ability to create time for dialogue between themselves and their patients (Petraglia, 2009:176).

The manner in which patients with chronic diseases rate their general health compared to other people of their age was explored (Waller, Hamberg & Forssén, 2015:e624). The purpose of the study was to encourage authentic consultation. The results of the study indicated that consultation improved because patients' spent time with their doctors and the doctors started to develop an understanding of their patients.

#### **2.4.4.3      *Health messages***

Health messages can be disseminated in different formats that are written or verbal (Centers for Disease Control and Prevention, US Department of Health and Human services, 2009:3). When designing health messages, one should consider culture and the literacy skills of the people the message is designed for (Centres for Disease Control and Prevention, US Department of health and Human services, 2009:3). Health messages are delivered in such a way that people are able to understand, can deduce meaning out, and are easy to use (South African Department of Health, Primary Health Care Supervision Manual, 2009:1: 4).

Health messages can be disseminated in different ways such as in the form of fact sheets, brochures, booklets, pamphlets, frequently asked questions (FAQs), videos, and online web-based content (South African Department of Health, Primary Health Care Supervision Manual, 2009:4:14). Before designing the health message, the following factors should be taken into consideration: the intended audience, key health problems or interests, gender, race, location, beliefs, behaviours, culture, current knowledge about the identified topic, the key message, the best way to communicate the message to the audience, and the method of distributing the material to the audience (Centres for Disease Control and Prevention, US Department of Health and Human services, 2009:4).

When using visual materials, present one message per visual and make visuals that are culturally relevant and sensitive (Centres for Disease Control and Prevention, US Department of Health and Human services, 2009:12). This approach is the one recommended for primary healthcare facilities (South African Department of Health,

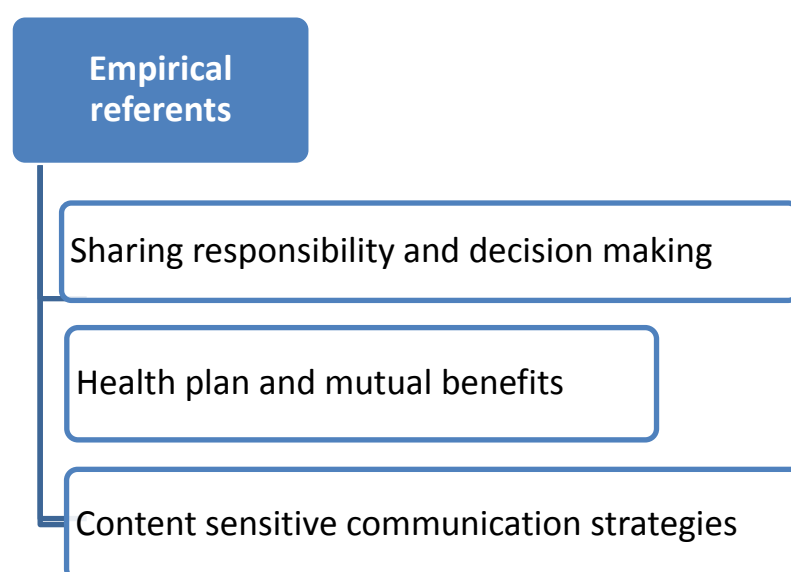


National Core Standards for Health Establishment, 2011:36; South African Department of Health, Primary Health Care Supervision Manual, 2009:1; 3).

The National Health Insurance recommends that trained community caregivers be included to convey health messages to the community. The disadvantage of community care givers is that the community is not yet used to them, so it is still difficult for the community to trust them (Soul City season 12, 2013:4).

### 2.4.5 Empirical referents

The empirical referents as stated in Chapter 1 are concepts, which create the opportunity to measure the characteristics (Walker & Avant, 2011:168). Empirical referents discussed in this chapter include sharing responsibility and decision-making, health plan and mutual benefits, and content sensitive communication strategies (Refer to Figure 2.1-2.45).



**FIGURE 2.6:** Empirical referents related to health dialogue

#### **2.4.5.1      *Shared responsibility and decision-making***

Decision making is considered as the logic and rational communicative process done by the patient to select the best option from the various solutions, provided by the professional nurse, to solve a problem (Meyer *et al.*, 2009:238). The nurses' responsibility is to inform the patients about the risks and advantages of the patients' treatments or policies that affect the patients' health (Meyer *et al.*, 2009:141; Patients' Rights Charter, 1999). The nurse and the patient will engage in a discussion to address the patients' problems, and at the end of a health communication session both of them will be able to summarize what has been discussed (Connolly, Thomas, Orford, Schofield, Whiteside, Morris & Heaven, 2014:37; Botes *et al.*, 2013:3; Kiragu & McLaughlin, 2011:421; Dube *et al.*, 2014:270).

The agreement between the nurse and the patient is reached through effective two-way communication (Farzadnia & Giles, 2015:17). Being engaged in shared decision-making enables the nurse to understand and treat the patient as an individual (Kent *et al.*, 2013:76).

Encouraging patients' decision-making through interactive communication enables them to better understand a health condition and engage them in self-management (Kent *et al.*, 2013:76). Involving the diabetic patient in a nurse-patient interaction should result in improved satisfaction with healthcare services, compliance to treatment, better health outcomes, and should add value to activities of daily living (Shue *et al.*, 2010:361).

#### **2.4.5.2      *Health plan and mutual benefits***

A health plan is a written agreement between the nurses and patients to help patients' adjust to the conditions (Diabetes Health Care Plans.co.uk., 2017: Online). Patients are given a chance to compile an individualised care plan together that addresses their goals and needs (Diabetes Health Care Plans.co.uk., 2017: Online). The health plan aims to accommodate patients' preferences, fits patients' lifestyle,

and matches the patient's calories, carbohydrate, and nutrient needs (American Association Diabetes Care, 2017:S34). The purpose of the health plan is to help in maintaining the patient's body weight, to manage individualized glycaemic index, blood pressure, and cholesterol levels as well as delay or prevent diabetic complications (American Association Diabetes Care, 2017:S34). It is the nurses' responsibility to provide the patients with the information for developing healthy eating patterns rather than criticizing patients about the type of food they eat (American Association Diabetes Care, 2017:S34).

Both the nurses and diabetic patients must reach the goal of keeping the HbA1c (glycosylated haemoglobin) within normal ranges, maintaining survival skills, health promotion, counselling, and prevention of long term diabetic complications (South African Department of Health, Diabetes Education, 1998:18). Included in the health plan are the following: goals to aim towards required support services, medication, diet plan, exercise plan, and emergency contact details (Diabetes Health Care Plans.co.uk., 2017: online).

Before initiating a health plan, the nurses assess patients' readiness to learn as patients diagnosed for the first time with diabetes often go through the stages of grieving (Hinkle & Cheever, 2014:1436). The nurses should assess patients' coping strategies (Hinkle & Cheever, 2014:1436), and the factors which may influence patients' social situation leading to difficulty in self-care such as, literacy level, financial resources, daily neurologic deficit, and cultural beliefs (Hinkle & Cheever, 2014:1437).

#### **2.4.5.3      *Context sensitive communication strategies***

The South African Concise Oxford Dictionary (2009:248) defines the word context as the parts of the written or spoken statement that precede or follow a specific word or sentence, usually influencing its meaning by clarifying it in a way that can be fully understood. The aim of diabetes education is to improve the problem-solving skills of the patient (South African Department of Health, Diabetes Education, 1998:18). Patient education combines information and counselling skills to empower the

patient on daily self-care and accept the condition. To enable patients to accept their conditions and manage them appropriately, nurses need to accommodate patients' needs, abilities, motivational levels, health, cultural beliefs, and health literacy (Kent *et al.*, 2013:76). This will enable nurses to learn about patients' needs and preferences and use communication strategies that will be acceptable by their patients (Mahmud *et al.*, 2013:2). On the other hand, the patients will have more knowledge about their condition and will use information gained effectively in managing their condition (Mahmud *et al.*, 2013:2).

Including patient's family members and close friends when providing patient education enhances the continuity of care (South African Department of Health, Updated management of type 2 diabetes in adults, 2014:60). The nurse should never blame someone if the patient is not complying with medication or their treatment plan (South African Department of Health, Updated management of type 2 diabetes in adults, 2014:72). The nurse should focus on the positive aspects of therapy whilst emphasising the impact of the negative aspects and offer support to deal with them if they occur (South African Department of Health, Updated management of type 2 diabetes in adults, 2014:60).

The nurse should encourage patients using motivational interviewing, encouragement to participate in treatment support programmes, and making time for patients to ask questions. Furthermore, patient information is conveyed in the patients' language of choice, through active listening, helping the patients to understand the conditions, and explaining the role of medication and the potential side effects (South African Department of Health, Adult Primary Care guide, 2016-17; South African Department of Health, Updated management of type 2 diabetes in adults, 2014:72).

#### **2.4.6 Consequence**

The consequence of health dialogue is the last main concept depicted in the health dialogue framework. Improved health outcomes could improve due to health communication between nurses and patients.

#### **2.4.6.1      *Improved health outcomes***

Health outcomes are referred to as the change in health status patients find themselves in after they received treatment (Polit & Beck, 2008:760; World Health Organisation, 2004:29). Improved health outcomes are possible when patients make purposive efforts to change their lifestyles (Portela, Pronovost, Woodcock, Carter & Dixon-Woods, 2015:1). The results of these efforts are witnessed by patients' behavioural changes and their determination to take control of their health rather than playing passive roles (McAllister, Dunn, Payne, Davies & Todd, 2012:1).

Improved health outcomes in a diabetic patient will be shown by patients who follow a healthy balanced eating plan, do regular exercises, control their weight, and accept their condition and participate in self-care strategies (South African Department of Health, Updated management of type 2 diabetes in adults, 2014:52; South African Department of Health, Diabetes education, 1998:7). Nurses at the healthcare centres contribute to health outcomes of diabetic patients by relieving diabetic symptoms, preventing acute metabolic and long-term complications, and by controlling associated disorders (South African Department of Health, Diabetes education, 1998:1). Patients are also encouraged to come for follow-up treatment and to comply with their prescribed treatment. However not involving patients actively in managing the disease contributes to poor health outcomes (South African Department of Health, Diabetes education, 1998:1).

## **2.5      CONCLUSION**

This chapter reviewed the literature on the elements that should be incorporated in health dialogue during health communication between nurses and the diabetic patients in the Maluti-A-Phofung Municipality. The terms health dialogue and health communication were explained broadly. The relationship between health dialogue and communication was clarified. Health dialogue elements were explained. The elements of health dialogue assisted in the formulation of a data collection questionnaire. The literature provided the researcher with the information that should

be included in the formulation of data collection questionnaire. The data will be used to determine how frequently health dialogue is practiced between the healthcare providers and diabetic patients in the healthcare facilities in the Maluti-A-Phofung Municipality.

However, the concept health dialogue is not a well-known or commonly used concept in South African health-care services. Literature review showed that there is limited literature relating to health dialogues in diabetic patients. The researcher searched for literature relating to the promotion of health dialogues in most health-related diseases to be able to find out the importance of health dialogues in diabetic patients. The researcher realized that before the study could be done there should be an in-depth investigation of the concept to avoid duplication of the same studies which were previously done.

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# **CHAPTER 3**

## ***Research methodology***

### **3.1 INTRODUCTION**

Chapter 1 includes a definition of the concept health dialogue, and an overview of the intended research. Health Dialogue encompasses the communication approach used by nurses to engage patients in their own care. The main goal of health dialogue is to increase patients' knowledge about their medication, the importance of treatment compliance, and lifestyle modification in an attempt to encourage active nurse-patient participation (Long & Gambling, 2011:269; Tveiten & Meyer, 2009:805).

Chapter 2 gives a description of the background of the study and elaborates on the conceptual map adopted by Reid (2015: Unpublished). The aim of chapter 2 was to describe the health dialogue elements that were included in the observational checklist developed to determine the extent to which nurses and patients with diabetes utilize these elements during health communication in the Maluti-A-Phofung municipality Primary Healthcare Clinics.

Chapter 3 mainly describes a step-by-step research plan, and how the study's research question, aim, and objectives were addressed (Refer to Table 3.1).

**TABLE 3.1: Research question, aim and objectives related to the study**

<b>RESEARCH PROCESS DESCRIPTION</b>	
RESEARCH QUESTION	To what extent are health dialogue elements present during health communication between nurses and diabetic patients in the Thabo Mofutsanyana District?
AIM AND OBJECTIVES	To describe the extent to which health dialogue elements are used during health communication between nurses and diabetic patients in the Maluti-A-Phufong Municipality, Thabo Mofutsanyana District.
OBJECTIVES	<p>To meet the aim, the objective was to observe the extent to which the following elements of health dialogue were used regarding:</p> <ul style="list-style-type: none"><li>• Antecedents which include a positive attitude, sensitivity/ respect, and training.</li><li>• Empirical referents which refer to shared responsibility and decision making, mutual beneficial health plan, and context sensitive communication strategies.</li></ul>

Chapter 3 also includes references to the research design and technique, the populations and sampling, steps taken to conduct a pilot study, as well as data collection and analysis. Ethical considerations and how validity and reliability were ensured and are included. The researcher explained the challenges encountered during the research process and how they were addressed to still ensure validity and reliability.

## **3.2 RESEARCH DESIGN**

Research design is a plan used to address the research question being studied and to meet the stated objectives. It Includes all plans used to address the study integrity (Brink *et al.*, 2012:55; de Vos *et al.*, 2011:109; Botma, Greeff, Mulaudzi & Wright, 2010:5; *et al.*, 2010:108; Creswell, 2009:3; Polit & Beck, 2008:765). A research design provides the structure for the research method. It is used to handle difficulties encountered during the research process (Brink *et al.*, 2012:55; Polit & Beck, 2008:67). It also serves as a blue print for conducting a study (Mouton, 2014:55; Grove *et al.*, 2013:195). The design maximizes control over factors that could interfere with the validity of the study's findings (Grove *et al.*, 2013:195; Botma *et al.*, 2010:6). The researchers use it as the end result of the series of decisions they

made concerning how best they could implement the study (de Vos *et al.*, 2011:143; Grove *et al.*, 2013:195). The research design answers the research problem and question and meet the research purpose, aim and objectives (Brink *et al.*, 2012:55; Mouton, 2014:55; de Vos *et al.*, 2011:63).

Different types of designs are used for different types of research. Quantitative research uses designs such as experimental, that is, true experimental, Pre-test control group, post-test only, Solomon four-group, factorial, quasi-experimental, time-dimensional, pre-experimental, one-shot case study, one-group pre-test post-test, and non-experimental designs. Research designs are also classified as descriptive, correlational, survey, comparative, ex post facto, and cross-sectional designs (Brink *et al.*, 2012:103; Botma *et al.*, 2010:108; Polit & Beck, 2008:67).

The type of design chosen depends on the type of research conducted, such as the availability of respondents, time constraints, availability of funding, and sources of information. As the research design is considered the backbone of a study, the following is considered before the researcher embarks on the research:

- population being investigated
- method of data collection that will be employed for the study
- type of instruments to be used during data collection
- purpose of the study, how often data will be collected, what type of comparisons will be made, and
- type area or environment in which the study will take place (Brink *et al.*, 2012:56; de Vos *et al.*, 2011:110; Botma *et al.*, 2010:106; Creswell, 2009:5).

Researchers use descriptive and correlational designs to conduct their studies in natural environments (Grove *et al.*, 2013:214; Botma *et al.*, 2010:110).

The researcher selected a quantitative descriptive cross-sectional design for the current study (Babbie, 2016:106; Botma *et al.*, 2010:110; Polit & Beck, 2008:274).

### 3.2.1 Descriptive designs

A descriptive design is a non-experimental design. In such a design, the independent variables are not manipulated (Brink *et al.*, 2012:112; Grove *et al.*, 2013:214; Botma *et al.*, 2010:110). A descriptive design enables the researcher to explain identified concepts of interest in their natural state, to determine what others do in similar situations, to identify problems with current practice, and to justify current practice (Brink *et al.*, 2015:112; Grove *et al.*, 2013:214; Botma *et al.*, 2010:110). Descriptive designs are used where knowledge about the related concepts are lacking and where it is important to obtain more information (Brink *et al.*, 2012:112; Grove *et al.*, 2013:216; Botma *et al.*, 2010:110). Descriptive designs are useful to measure one or two types of prevalence and to plan delivery of services in order to estimate future needs (Grove *et al.*, 2013:49; Botma *et al.*, 2010:110; Polit & Beck, 2008:274). This type of research is also valuable when new meanings need to be established, and to determine the frequency of occurrence of a variable (Grove *et al.*, 2013:6; Polit & Beck, 2008:20).

The aim of a descriptive design is to obtain a complete and accurate information about phenomena in a real situation, as it is important to provide accurate descriptions of situations as they naturally occur. Descriptive designs are suitable for theory development (Brink *et al.*, 2012:112; Grove *et al.*, 2013:215; Polit & Beck, 2008:274). Researchers usually collect data in natural settings using structured observations, questionnaires, and interviews (Brink *et al.*, 2012:113). The advantages of descriptive designs are that these designs are:

- inexpensive to implement
- take less time to conduct the research

However, the disadvantage is that the:

- level of information obtained is regarded as superficial (Botma *et al.* 2010:110). To overcome this disadvantage the observational checklist was piloted to ensure content, accuracy and adequacy.

The researcher obtained the information from the respondents in a real-life situation. The abovementioned enabled the researcher to determine if health dialogue elements are used during health communication between nurses and patients with diabetes in the Maluti-A-Phofung municipality clinics.

### **3.2.2 Quantitative designs**

Quantitative designs are in-depth, objective, structured investigations of concepts. These designs are utilized to describe and understand trends among respondents related to selected concepts. The aim is to answer questions about the concept using standardized statistical procedures and to be able to analyze results as well as, eventually, draw conclusion about the concept (de Vos *et al.*, 2011:64; Creswell, 2009:233; Meyer *et al.*, 2009:347).

In most cases quantitative research is used to investigate questions developed during qualitative research, to generate questions that should be explored qualitatively, and to test theories generated through qualitative research (Botma *et al.*, 2010:82). Furthermore, its purpose is to provide strong evidence regarding the research problem under investigation (Botma *et al.*, 2010:83). Quantitative research focuses on identifying and describing variables, examining relationships among these variables, and determining the effectiveness of interventions when managing clinical problems (Grove *et al.*, 2013:74; Botma *et al.*, 2010:83). In maintaining objectivity, the researcher detaches himself or herself from participants by not participating in the events under investigation. The quality of evidence of a study depends on relevant statistical analysis measures (Brink *et al.*, 2012:11; Botma *et al.*, 2010:83; Ellis, 2010:62). Statistical analysis is used to reduce and organize data, describe variables, examine relationships, and determine differences among groups (Grove *et al.*, 2013:25).

Quantitative research serves as an essential tool to:

- generate nursing science knowledge
- provide an evidence based nursing practice
- promote education and management (Brink *et al.*, 2012:13; Grove *et al.*, 2013:34; Botma *et al.*, 2010:82).

The disadvantage of quantitative research is that the researcher:

- Does not interact *fully* in the activities of the participants. The researcher can choose to send the questionnaire to be filled in by the participants using different resources without him or her being present (Grove *et al.*, 2013:65; Botma *et al.*, 2010:182). To overcome the disadvantages the researcher and the fieldworker maintained a neutral position during their observation of the health dialogue elements used during health communication between nurses and patients.

### **3.2.3 Cross-sectional designs**

A cross-sectional design includes the gathering of data from a specific sample once at a specific point in time (Babbie, 2016:106; Grove *et al.*, 2013:221; Botma *et al.*, 2010:113; Polit & Beck, 2008:751). The *aim* of the design is to determine if a particular problem exists within a group, and to what extent. The researcher selects the sample at different points in time and gathers information from different groups using the same processes. Cross-sectional designs are suitable to describe concepts or describe the relationship between the concepts.

Against this background, the researcher and the fieldworker observed patients with diabetes who visited selected clinics for follow-up treatment, during their consultation with nurses. The researcher stipulated the time for data collection. The researcher observed individual nurses' consultations with five or less individual patients. The fieldworker completed the same observations at different clinics but on the same days as the researcher. Both the researcher and the fieldworker observed if a consistent pattern of health communication was used during consultation with diabetic patients (Brink *et al.*, 2012:101; de Vos *et al.*, 2011:156). The above

measures were implemented to ensure that the design addresses the aims and objective of the study (Creswell, 2009:7).

### **3.3 RESEARCH TECHNIQUE**

Research techniques facilitate the accurate systematic collection of data relevant to the research purpose, specific objectives, questions, or hypothesis of the study (Grove *et al.*, 2013:45; Botma *et al.*, 2010:290). Carefully selected research techniques enable researchers to conduct a study and to collect and analyze data in a well-structured manner (Brink *et al.*, 2012:149; Polit & Beck, 2008:765). Quantitative research techniques make use of structured self-reports that could be obtained through interview schedules, structured questionnaires, or observations using checklists (Brink *et al.*, 2015:149; Grove *et al.*, 2013:46).

The researcher opted to apply a structured data collection method. Reid and Joubert's (2016/17) unpublished observational checklist and guideline was used by the researcher to describe the extent to which health dialogue elements are used during health communication between nurses and patients with diabetes in the Maluti-A-Phofung municipality.

The researcher and the fieldworker observed their respondents directly and recorded the elements observed. Using an observational checklist enabled the researcher to have first-hand experiences with the patients and nurses, to record information immediately, and to notice non-verbal communication elements. However, the researcher may be seen as violating the respondent's right to privacy. To avoid this, the researcher informed the patients and nurses about the study and informed them that they both need to sign a consent form in order to be included in the study. The principles related to confidentiality of information were maintained through safekeeping of data and coded checklists. Respondents could not be identified based checklist data.



### 3.3.1 Observational checklist for health communication between nurses and patients

The observational checklist consists of general questions as well as nurses' and patients' demographic information that was obtained privately and individually without the interference of one another. Part 2 included observations done during the consultation. Antecedents related to positive attitude and sensitivity/respect, whereas part 3 referred to empirical referents related to shared responsibility or decision-making, captured after conclusion of the consultation. Nurses and patients were interviewed individually and privately (Refer to Table 3.2).

**TABLE 3.2: Structure of the observational checklist**

STRUCTURE	CONTENT	OBSERVATION	ACTION	QUESTION TYPE
GENERAL		Observation 1-4	Completed by researcher before consultation	Close-ended Other specify
PART 1	Nurse and patient profile	Observation 5-11	Completed by researcher before consultation	Close-ended Open-ended Refer to Annexure H
		Observation 12	Time interview started	Close-ended
PART 2	Antecedents 2.1 Positive attitude	Observation 13-26	Observations by fieldworker	Rating scale "Yes"/"No" Refer to Annexure H
	2.2 Sensitivity and Respect	Observation 27-38	Observations by fieldworker	Rating scale "Yes"/"No" Refer to Annexure H
PART 3	Empirical Referents 3.1 Shared responsibility and decision-making	Observation 39-41	Completed by fieldworker after consultation	"Yes"/"No" Open-ended [Motivation]
		Observation 42	Time interview ended	

### 3.3.2 Guidelines for the use of the observational checklist

The guideline addressed all the questions mentioned and was developed to brief the fieldworker on elements regarding how to observe and also to guide both the researcher and the fieldworker to observe elements accurately and consistently in order to improve the validity and reliability of data obtained during the observation of health communication between nurses and patients (Refer to Table 3.3 & Annexure I).

**TABLE 3.3: Example of structure of guideline**

	<b>To complete Part 3, interview nurse and patient individually</b>	
39	Have you experienced a sense of shared responsibility during this consultation? <b>Please motivate</b>	Have you experienced a sense of shared responsibility during this consultation? <b>Please motivate</b>
	<i>If answer is <b>no</b>: Write down "No shared responsibility experienced"</i> <i>If answer is <b>yes</b>: Write down the response for example: "I felt that we both agreed on the treatment/we jointly decided what to do next."</i>	
40	Did you benefit from this consultation? <b>Please motivate</b>	Did you benefit from this consultation? <b>Please motivate</b>
	<i>If answer is <b>no</b>: Write down "No benefit from consultation"</i> <i>If answer is <b>yes</b>: Write down the response for example: "No, not sure; I had just finished with another patient/Yes, I received my medication."</i>	
41	Were you able to consider the patient's circumstances during the consultation? <b>Please motivate</b>	Did you experience that the nurse considered your circumstances in this consultation? <b>Please motivate</b>
	<i>If answer is <b>no</b>: Write down "Not able to consider patients consultation"</i> <i>If answer is <b>yes</b>: Write down the response for example: "Yes, she is poor, but I could not really help her/Yes, she said she does not have fruit and vegetables to eat every day "</i>	
42	Time interview ended	
	Write time in 24-hour format, for example: 13:30	

## 3.4 POPULATION AND SAMPLING

### 3.4.1 Population

A population is defined as the entire group of people, objects, events, or substances that meet the criteria that the researcher is interested in studying. The population exhibits the characteristics the researcher is interested in, in order to address the aim and objectives of a study (Brink et al., 2012:131; de Vos *et al.*, 2011:223; Botma *et al.*, 2010:124; Polit & Beck, 2008:761).

- The study context included all 32 *fixed Primary Health Care Clinics* (PHCs) and community health care centres in the Maluti-A-Phofung district. No sample was taken. One clinic that was no longer operational and thus was replaced with another (Refer to Table 3.1).
- The final population was 179 nurses, of which 153 were professional and 23 were staff nurses working in these primary health care clinics and consulting diabetic patients.

### 3.4.2 Sampling

Sampling is a process the researcher used to select a group or population, events, behaviours, or other elements in order to obtain information regarding a concept in a way that represent the population of interest (Brink *et al.*, 2012:132; Grove *et al.*, 2013:708; Botma *et al.*, 2010:124; Polit & Beck, 2008:765). The following types of samples will be applicable (Grove *et al.*, 2013:360).

#### **3.4.2.1 Convenient sample including professional and staff nurses and patients**

The convenient sample consisted of 32 nurses rendering healthcare to patients with diabetes mellitus in the 31 Primary Healthcare Clinics and centres.

#### **3.4.2.1.1    *Inclusion criteria included nurses who:***

- Signed consent to participate in the study
- Are trained and involved in consultation/health communication with patients during their follow-up visits for diabetes mellitus

#### **3.4.2.1.2    *Inclusion criteria included patients with diabetes who:***

- Signed consent to participate in the study
- Are involved in consultation/health communication during a follow-up visit for diabetes mellitus
- Are 18 years of age and above

In the main study, 160 were to be included. Only 137 patients participated in the study.

One clinic from Intabazwe (Lesedi) was excluded from the study as it is no longer in use. The clinic was replaced with Makgolokweng clinic, which was not included in the main study. The inclusion of Makgolokweng affected the study negatively as the number of professional nurses included in the study decreased by three. In the main study the number of professional nurses at Lesedi clinic was six and Makgolokweng clinic had only two professional nurses and one enrolled nurse . However, the number of nurses who were observed were therefore not affected (Refer to table 3.1).

Professional nurses (six) from one clinic were excluded as they opted not to be part of the study. Their heavy workload and the fact that being involved in the study would have been time consuming for them were stated as reasons for not participating.

As part of data collection, each nurse in the sample was required to interview at least five patients with diabetes. However, not all clinics had five diabetic patients on the day the researcher visited the facility. The number of diabetic patients observed per clinic, therefore, differed between two to five patients per nurse. Fortunately, most clinics had five diabetic patients, only two clinics had only two patients. Initially the number of patients who were to be observed by the researcher were 155, but the researcher only managed to observe 137 diabetic patients. In 4 clinics (Harrismith, Matsieng Namahadi, and Thabang), the researcher observed 4 patients each, in the other 4 clinics (Dinkoeng, Makeneng, Monontsha and Thaba Bosiu), the researcher observed 3 patients each. In two clinics (Eva Mota and Tshirela), only 2 patients were observed in each. The number of nurses includes one nurse who was included in the pilot study.

Patients from one clinic were not included in the study as nurses were also not included. The total number of patients who were to be observed decreased by 5 patients. However, the decreased number of respondents did not have a major effect on the study results as 88% of the respondents were observed. The clinic which was not in use at Intabazwe (Lesedi) was replaced by patients from Makgolokweng clinic (Refer to Table 3.4).

**TABLE 3.4: Number of Primary Health Care Clinics and distribution of nurses in each (to be continued)**

NO	NAME OF CLINIC	NUMBER OF NURSES PER CLINIC	PROFESSIONAL NURSES (RN)	ENROLLED NURSES (EN)	ANTICIPATED NURSES PER DAY SHIFT PER ALLOCATION	TYPE OF CLINIC	SIZE BASED ON HEADCOUNT
1	Bolata	6	4	2	3 (RN) 1 (EN)	Day clinic	Large
2	Boiketlo	5	4	1	3 (RN) 1 (EN)	Day clinic	Large
3	Bluegumbosch	7	6	1	3 (RN) 1 (EN)	Day clinic	Large
4	Dinkweng	3	3	0	2 (RN)	Day clinic	Small
5	Eva mota	2	2	0	1 (RN)	Day clinic	Medium
6	Harrismith	8	7	1	4 (RN) 1 (EN)	Day clinic	Large
7	Intabazwe	6	5	1	4(RN) 1(EN)	Day clinic	Large
8	Kopanong	9	6	3	5 (RN) 1 (EN)	Day clinic	Large
9	Lesedi	Excluded from main study					
9	Ma-haig	6	5	1	3 (RN) 1 (EN)	Day clinic	Large
10	Makeneng	4	4	0	2 (RN)	Day clinic	Large
11	Makgaoloaneng	5	4	1	2 (RN) 1 (EN)	Day clinic	Medium
12	Makgolokweng	3 Included in main study	2	1	2 (RN) 1(EN)	Day clinic	Medium
13	Makwane	6	4	2	2 (RN) 1 (EN)	Day clinic	Large
14	Malesaoana	3	3	0	2 (RN)	Day clinic	Small
15	Marakong	14	13	1	4 (RN)	24-hour services	Large
16	Matsieng	2	2	0	1 (RN)	Day clinic	Small
17	Monontsha	6	5	1	3 (RN) 1 (EN)	Extended	Medium
18	Mphatlalatsane	5	4	1	2 (RN) 1 (EN)	Day clinic	Medium

**TABLE 3.4: Number of Primary Health Care Clinics and distribution of nurses in each**

NO	NAME OF CLINIC	NUMBER OF NURSES PER CLINIC	PROFESSIONAL NURSES (RN)	ENROLLED NURSES (EN)	ANTICIPATED NURSES PER DAY SHIFT PER ALLOCATION	TYPE OF CLINIC	SIZE BASED ON HEADCOUNT
19	Namahadi	11	9	2	5 (RN) 1 (EN)	Day clinic	Medium
20	Nthabiseng	3	3	0	2 (RN)	Day clinic	Medium
21	Paballong	5	5	0	3 (RN)	Day clinic	Medium
22	Phuthaditjhaba	9	9	0	5 (RN)	Extended	Medium
23	Qholaqhwe	6	6	0	4 (RN)	Day clinic	Medium
24	Riverside	7	6	1	4 (RN) 1(EN)	Day clinic	Large
25	Skamotho-mota	3	3	0	2 (RN)	Day clinic	Medium
26	Tebang	13	12	1	6 (RN) 1 (EN)	24-hour service	Large
27	Thaba-bosiu	4	3	1	2 (RN) 1 (EN)	Day clinic	Medium
28	Thabang	2	2	0	2 (RN)	Day clinic	Small
29	Tina Moloi	2	2	0	2 (RN)	Day clinic	Medium
30	Tseki	5	5	0	3 (RN)	Day clinic	Large
31	Tshirela	4	4	0	3 (RN)	Day clinic	Medium
32	Tshiame	10	8	2	6 (RN)	Day clinic	Large
	TOTAL	184	160	24	96(RN)+ 15 (EN)		

*Key:*

*Day= 07:30-16:00*

*Extended= work Monday until Saturday (07:00-16:00)*

*Distance between primary health care clinics*

Headcount per clinic per month

*Small = ±1200*

*Medium= ±2000*

*Large: ± 3500*

The above clinics are distributed one per village. The distance between each clinic (primary health care clinic) from one village to the next nearest village is on average  $\pm$  4km to 15 km. For example, the distance between Tshirela clinic and Makeneng clinic is 5km, Mahaig clinic and Phuthaditjhaba clinic 6km, Tseki, Nthabiseng and Bolata clinic 5km, Mphatlalatsane and Bluegumbosch 7km, and between Tebang, Qholaqhwe and Makwane clinic 4km.

The researcher targeted to complete five observational checklists when observing both five patients and one nurse simultaneously. Per day, the researcher targeted to visit two clinics. Some of the reasons that prevented the researcher from visiting two clinics per day were: during the day of visit it was raining and the researcher had to reschedule with the clinic concerned because the road was treacherous. Another reason is that on the day of the visit there were no diabetic patients at the clinic as patients were being booked for days which they could come for follow up treatment, that made the researcher have to reschedule the appointment. The other reason was that the researcher had to attend work related issues in between the days of data collection. The aim of the researcher was to complete data collection in three weeks; however, it took the researcher six weeks to complete data collection.

### **3.5 PILOT STUDY**

A pilot study is defined as a mini experiment of a larger study (de Vos *et al.*, 2011:46; Botma *et al.*, 2010:275; Polit & Beck, 2008:761). At the same time the pilot study is considered part of the planning phase (Mouton, 2001:102; Brink *et al.*, 2012:57) and is used to develop and refine interventions, as a measurement method, as a data collection tool, or as a data collection process. In addition, a pilot study helps the researcher to identify and address research related problems by obtaining information which can help to improve the study. This could be done through adjustments to an instrument or by reassessing the feasibility of the study (Brink *et al.*, 2012:57; Mouton, 2014:103; Botma *et al.*, 2010:275; Polit & Beck, 2008:214). The function of the pilot study is also to evaluate the adequacy of study methods and procedures, improve the success of the participant recruitment strategy, and to strengthen the relationships between key variables so that the number of



respondents can be estimated (Brink *et al.*, 2012:175; Grove *et al.*, 2013:343; Botma *et al.*, 2010:275; Polit & Beck, 2008:214).

The observational checklist and guideline used in the current study was developed, piloted, and tested for reliability by Reid and Joubert (2016/17: Unpublished). The two researchers identified 45 academics within the Faculty of Health Sciences and a Faculty of Humanities, who were interested in health communication between patients and healthcare providers. Five respondents consented to participate in the researcher's pilot study. Training on how to complete observational checklists supported by a guideline was given to these respondents. During the pilot study, the five respondents observed a videotaped, simulated health dialogue between a patient and a healthcare professional. The pilot study created an opportunity to identify aspects that needed improvement. Certain areas of the observational checklist needed language editing. The rating scale was also simplified. To determine the reliability of the measuring instrument and guideline 21 academics participated in the main study. The same process as in the pilot study was followed to determine the reliability of this measuring tool.

The researcher received permission to use the observational checklist to conduct the current study and received training to use both the checklist and the guideline.

### **3.6 DATA COLLECTION**

The Research and Ethics Committee of the Faculty of Health Sciences (UFS) approved the study. Thereafter, permission to conduct the study was obtained from the relevant stakeholders responsible for Primary Healthcare. Refer to Ethical Issues Chapter 1, and Annexure A.

Data collection refers to a comprehensive orderly manner to gather data relevant to a study. Quantitative researchers use methods such as self-reports questionnaires, checklists, and observations to obtain information (Grove *et al.*, 2013:45). Considering the different research techniques, the researcher opted to use an

observational checklist, an observational checklist guideline, and a tape recorder to collect data (Refer to Table 3.2 and Table 3.3).

The researcher, with support of a trained fieldworker, aimed to observe health communication between professional nurses and patients with diabetes. Through simultaneous observation, health dialogue elements used during consultation were identified. The fieldworker was a nurse who completed her one year community service work in one of the clinics at Maluti-A-Phofung Municipality. The fieldworker was trained by the researcher on how to observe health communication between professional nurses and patients with diabetes.

To conduct the main study, the researcher made appointments with clinic managers and nurses responsible for patients with chronic diseases and briefed them on the extent of the research. Copies of letters containing forms gaining permission to conduct the study were also made available to managers. Details concerning the data collection, for example, dates, time, venues, and staff to be involved in the study, were discussed and finalized.

Nurses, conveniently selected to participate in the study, received the necessary information and written consent was obtained before the pre-scheduled data collection day. Permission to tape record the health communication between a nurse and a patient formed part of the written consent. The professional or staff nurse responsible for chronic patients identified the patients on their arrival at the facility for their follow-up visit, after which the researcher obtained the patients' consent.

Even though the researcher confirmed that an ample number, that is, more than five, diabetic patients do visit the facilities at any given time, not all clinics had five patients on the day data was collected. Some of the clinics had only two or three patients when the researcher or fieldworker visited the clinic to conduct the study. The researcher ensured that ample copies of the observation checklist were available during the data collection period.

Before engaging in the study, the fieldworker was trained on the role of conducting the research, the completion of the observational checklist, and the guideline. The role of the fieldworker was to complete the prescribed number of observational checklists on the same day as the researcher, but at different clinics.

Individual information included in the observational checklist was obtained during a private discussion between the researcher/ fieldworker and the nurse, as well as the researcher/ fieldworker and the patient. These questions included demographic data and they were completed before a consultation. The data was important in order to compile a profile of the respondents related to language, gender, highest education level, and age. Additional information that was required from nurses was their diabetic related training and communication training received during the last 12 months, as well as the period that they had been consulting diabetic patients. Additional information required from patients was related to diabetic information that they have received during the past 12 months and the period of time that they had been diagnosed with diabetes (Refer to Figure 3.1).

Nurses and patients were observed simultaneously during the researcher's observation of the extent to which health dialogue elements are used during health communication. The following antecedents were observed: positive attitudes (collaborative interaction, holistic approach, dignity, shared responsibility, and the characteristics of both the nurses and patients) and sensitivity/ respect (gender sensitivity, language difficulties, culture/beliefs, health literacy, technology, politico-legal context, ethical issues, and socio-economic influences).

On completion of a health communication session, the researcher or fieldworker gathered individual and private feedback from the nurse and the patient on questions addressing their experience on shared responsibility and decision-making during the consultation. The questions that were asked for both the patients and the nurses were that they indicate if they had experienced a sense of shared responsibility during the consultation and if they benefited from the consultation. Both patients and nurses had the opportunity to indicate if circumstances were considered during the consultation. The mentioned individual interviews did not exceed five minutes.

Quality control was maintained by keeping the dates when access was gained into the field, dates the study was conducted, the keeping of the tape recorder and records of the people who participated in the study in a safe cabinet which was always locked.

### **3.7 VALIDITY AND RELIABILITY**

In this study the researcher used an existing observation checklist and guideline that was constructed based on the findings from a concept analysis (Reid, 2015: Unpublished). The supervisor and health dialogue expert compiled the two data collection tools as part of their own research. The observational checklist and guideline will also be piloted and refined by them over a period of time. However, in this study the researcher used feedback based on their own pilot of the observation checklist to promote face and content validity. The observation checklist and guideline were also scrutinised by both the School of Nursing's Evaluation committee and the Health Sciences Research Ethics Committee (UFS). Lastly, data was duplicated, that is, captured twice, as a measure to ensure that results are valid.

According to de Vos *et al* (2011:177) reliability is measured by ensuring that the instrument evaluates what it is supposed to measure more than once, and produces the same results when measuring the same variable. In this study the researcher reviewed the existing observation checklist to ensure that enough questions to measure health dialogue elements were included and that the observation checklist was based on the conceptual framework developed by Reid (Reid, 2015: Unpublished).

### **3.8 DATA CAPTURING AND DATA EDITING**

The researcher and the fieldworker captured data from the respondents. The researcher and the fieldworker used the observation checklist and the tape recorder to capture data. The researcher and the fieldworker used the tape recorder to record the conversation between the nurse and the patient and between the researcher and the patient as well as the researcher and the nurse during interviews. The

observation checklist was used to record the responses from both the nurses and the patients. The captured data was exported on a Microsoft Excel spreadsheet.

To ensure zero error during data capturing, the independent statistician from the University of Free-State was asked to proof-read and check the capturing of interview transcripts before analyzing the data.

### **3.9 DATA ANALYSIS**

The researcher coded and captured the data on a Microsoft Excel spreadsheet. Descriptive statistics, namely means and standard deviations or medians and percentiles for continuous data and frequencies and percentages for categorical data were, calculated per group for both nurses and patients. The groups were compared by means of 95 per cent confidence intervals. Data analysis was done by the biostatistician at the Department of Biostatistics in the University of Free-State.

### **3.10 ETHICAL CONSIDERATIONS**

Permission to conduct the study was obtained from the Health Sciences Research Ethics Committee (UFS) before the researcher commenced with the study. The study was approved by the committee on the 26<sup>th</sup> February 2016 with the following approval number; HSREC 23/2016. The researcher also requested permission from the Head of the Free-State Department of Health. The study was approved in May 2016 and the approval reference number is FS 2016RP53 907.

Furthermore, considering the ethical principles of beneficence, non-maleficence, and justice, as well as the ethical principles stipulated by the Health Sciences Research Ethics Committee (UFS), the following was included in the letter to the respondents:

That personal information would not appear on the observational checklist or in any document that is disseminated. Data would be locked away in a safe drawer and only accessible to the researcher, supervisors, and bio-statistician.

That there was no risk or cost involved in participating in the study. Furthermore, that respondents were not to be remunerated. That an information consent leaflet was made available to explain the study and their responsibilities, and that the respondents signed the informed consent

Respondents were also made aware that they would receive a copy of the informed consent. The informed consent letter had a section where the respondents acknowledged that they were familiar with the content of the study.

That participation in the study was voluntary and that they could withdraw anytime if they didn't feel comfortable about the study. The professional or staff nurses and patients were given consent forms to sign in order to indicate that they agreed to participate in the study.

Regarding time needed to participate, the respondents were informed that the data would be gathered during their visit to the nurse and that it would take only five minutes extra of their time after their visit.

Respondents were informed that the results of the study would be disseminated at different academic platforms such as conferences and workshops, as well as an article in a peer reviewed accredited journal.

### **3.11 LIMITATIONS**

Data was collected from a limited number of diabetic patients who visited the primary health care clinics only. The study only included one nurse per clinic, except in one clinic where two nurses were included, and that could have led to a Hawthorne effect. The study did not include all the clinics as nurses from one clinic did not participate and that impacted on their patients' participation in the study.

### 3.12 VALUE OF THE STUDY

A description of health communication reflecting health dialogue elements between nurses and patients with Diabetes Mellitus at primary health care clinics in the Maluti-A-Phofung municipality might provide important information about the way nurses interact with their patients during consultations.

The results might also provide a valuable starting point to improve health communication in Primary Health Care Clinics (PHCs). Nurses could become able to use health dialogue elements in their health communication with patients and, instead of one-way communication, in-depth, two-way communication could be promoted. In South African primary health care clinics, most patients are consulted by nurses before being referred to the doctors (Mash *et al.*, 2015:1). Diabetic patients depend on nurses to provide them with proper diabetes management. The comprehensive management of diabetes includes medication, self-care, and lifestyle modification from the patients (Mash, *et al.*, 2015:1).

Through a better understanding of health communication, and the application of health dialogue elements, health care outcomes of patients through a holistic approach could be improved. The patients might benefit from being actively involved in their care.

Nursing Training Institutions could use the results to ensure that students are trained to effectively communicate with patients through sharing instead of giving information.

This study used a participatory approach in which nurses and patients shared information and decision-making. The results of the study could raise consciousness in regard to important health dialogue elements that should be considered during health communication and, consequently, inform the policy makers on changes that should be brought to the healthcare setting or environment to improve patients' health outcomes.

Even though there are protocols stating the information that should be provided when giving health information to diabetes patients, nurses have not been trained on the communication skills to use when providing health information to diabetic patients in the Free-State province.

Chapter 4 provides insight into the extent to which health dialogue elements were used during health communication between nurses and patients with diabetes.



### 3.13 REFERENCES

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# **CHAPTER 4**

## ***Results***

### **4.1 INTRODUCTION**

In Chapter 3, detailed descriptions of the methodology, that is, how the research question, aim and objectives of the study were addressed, were given. Aspects related to the study such as the research design and technique, the populations and sampling, steps taken to conduct a pilot study, and ethical considerations were highlighted.

In Chapter 4, the researcher discusses the results obtained by means of an observational checklist. The data was analysed by a biostatistician using descriptive statistics, namely means, standard deviations, medians, and percentiles for continuous data, as well as frequencies and percentages for categorical data. The results obtained from each study population, that is, nurses and patients, are discussed, and presented in tables and figures. Literature to support the results are also part of the discussion.

According to the researcher the results in this chapter prove that the aim, that is, to describe the extent to which health dialogue elements were used during health communication between nurses and diabetic patients has been achieved. In addition, this chapter demonstrates that the processes described in chapter 3 were suitable for the study and ensured valid and reliable results.

## **4.2 DESCRIPTION OF STATISTICAL ANALYSIS AND INTERPRETATION OF RESULTS**

Medians and percentiles were used for continuous data, that is, age, the period a patient has been suffering from diabetes, and nurses' involvement in consulting patients with diabetes. For categorical data such as, the facility, gender, home language, type of diabetes mellitus, highest level of education, positive attitude elements such as collaborative interaction, holistic approach, dignity, frequencies, and percentages were calculated. Other categorical data included shared understanding/decision making and the characteristics of role players; sensitivity or respect elements, such as gender sensitivity; language/linguistic difficulties; culture/belief; sensitivity towards health knowledge; validated understanding of health knowledge; health literacy; sensitivity towards a patient's ability to read health information; sensitivity towards a patient's ability to understand health information; technology; politico-legal context; ethical issues and socio-economic influences; as well as shared responsibility and decision-making.

The data has been analysed according to the information in the observational checklist. The general information consists of questions 1-3, part one includes demographic data with question 5-11. Part 2 are antecedents and consists of part 2.1 and 2.2. Part 2.1 includes elements of positive attitude and includes questions 13-26, and parts 2.2 include elements of respect and sensitivity and questions 27-38. Part 3 consists of empirical referents elements which are shared responsibility and decision making. In this study one and two decimal points were used to indicate percentages.

The groups, that is, nurses and patients, were compared by means of 95% confidence intervals. Open-ended questions were coded into yes (1) and no (2) and categorized in part 3. Characters used to interpret the findings include the following (Refer to Table 4.1).

**TABLE 4.1: Characters used during interpretation and description of results**

N=	Total number of observations done in study N=137 Note that one nurse mostly consulted more than one patient
n=	Specific number of observations nurses and/or patients
CI	95% Confidence Interval

### **4.3 FACILITIES: N 31**

The study was conducted in 31 clinics instead of 32 clinics as the nurses in one clinic opted not to participate due to reasons stated in chapter 3. In the 31 clinics, 137 patients and 32 nurses were observed during consultation sessions. As stated in Table 4.1 one nurse consulted more than one patient.

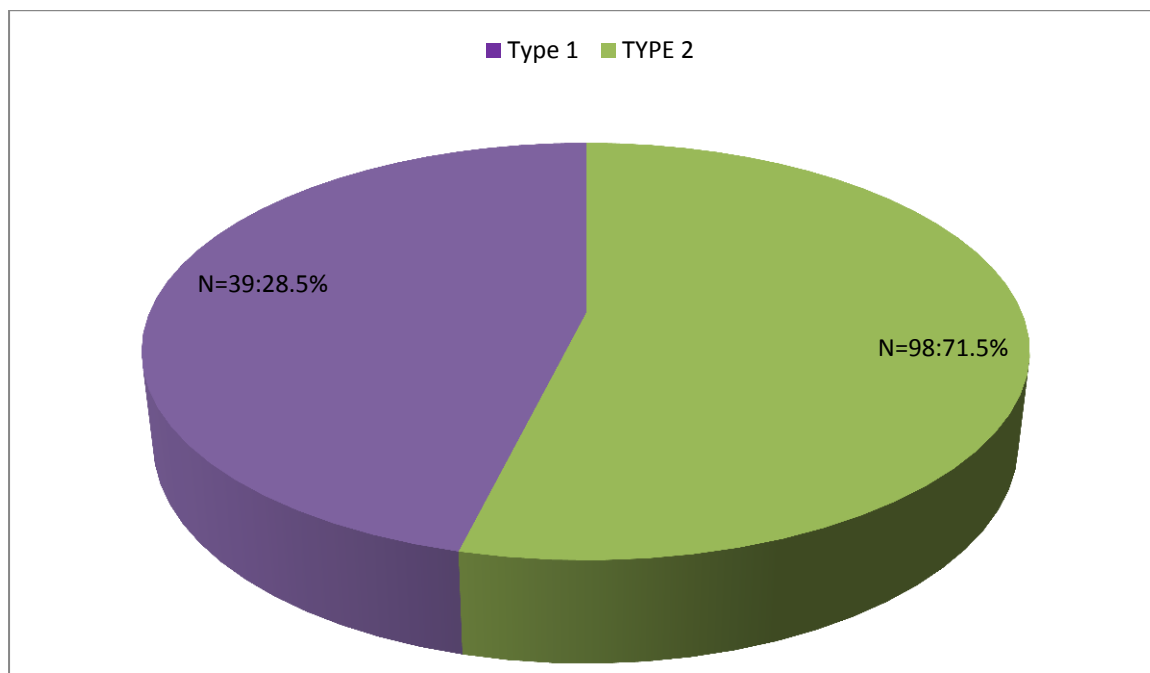
In the 31 clinics that participated in the study 67.74% (n= 21) of the nurses managed to interview five patients (n=105:76.6%). 12 and half percent (n=4) of the nurses managed to interview four patients each. Four nurses (n=12.5%) managed to interview three patients each. Two nurses each consulted two patients (6.46%). In one clinic five patients were consulted, however, one nurse consulted four of the five and another nurse the fifth patient. The first nurse had to withdraw to attend to personal matters (Refer to Table 4.2).

**TABLE 4.2:            Number of patients consulted by nurses at the clinics  
(N=137)**

Nurse	Clinic	Number of patient seen by Nurse: f=	Percentages: %
1	Bluegumbosch	5	3.65
2	Bioketlo	5	3.65
3	Bolata	5	3.65
4	Dinkoeng	3	2.19
5	Eva Mota	2	1.46
6	Harrismith	4	2.92
7	Intabazwe	5	3.65
8	Kopanong	5	3.65
9	Mahaig	5	3.65
10	Makeneng	3	2.19
11	Makgolokweng	5	3.65
12	Makhaoalwaneng	5	3.65
13	Makwane	5	3.65
14	Malesaoana	5	3.65
15	Marakong	5	3.65
16	Matsieng	4	2.92
17	Monontsha	3	2.19
18	Mphatlalatsane	5	3.65
19	Namahadi	4	2.92
20	Nthabiseng	5	3.65
21	Paballong	5	3.65
22	Phuthaditjhaba	5	3.65
23	Riverside	5	3.65
24	Sekamotho Mota	5	3.65
25	Tebang	5	3.65
26	Thaba Bosiu	3	2.19
27	Thabang	4	2.92
38	Tina Moloi	5	3.65
39	Tseki	5	3.65
30	Tshiame	5	3.65
31	Tshirela	2	1.46
Total number of patients		137	100

#### 4.4 TYPE OF DIABETES WITH WHICH PATIENT WAS DIAGNOSED

Diabetic patients who attended a clinic were included in the study. A small percentage of patients 28.5% (n=39) had type 1 diabetes while 71.5% (n=98) were diagnosed with type 2 diabetes (Refer to Figure 4.1). Type 2 diabetes accounts for 80.0% of all diabetes cases in South Africa (Vasuthevan & Mthembu, 2016, p.97; Mogotlane *et al.*, 2010, p.837). Data from one hundred and thirty-seven patients was available (Refer to Figure 4.1).



**FIGURE 4.1:** Type of diabetes with which patient was diagnosed (n=137)

#### 4.5 LANGUAGE USED DURING CONSULTATION WITH PATIENTS

Most patients, 95.6% (n= 130), were consulted in Sotho whilst a very low percentage, 4.4% (n=6), of patients were consulted in Zulu. Most of the Eastern Free State people speak Sesotho. Sesotho is also spoken by 64.2% of the population in the Free State (Provincial Gazette Free State Province, 2013:41). Zulu speaking patients were found in the Harrismith area, that is, Intabazwe and Makgolokweng clinics.

## **4.6 TIME TAKEN TO COLLECT DATA**

The researcher started with the study on the 5<sup>th</sup> January 2017 and finished with data collection on the 14<sup>th</sup> February 2017. The intention was to conduct the study within three weeks. However due to unforeseen circumstances, including the distance from one clinic to another, data collection took 21 days. According to the researcher, this did not affect the reliability and validity of the results.

## **4.7 DEMOGRAPHIC INFORMATION**

### **4.7.1 Gender of nurses and patients (N=137)**

The majority of nurses that consulted patients 83.2% ( n=114) were females. The number of males that consulted patients were 16.8% (n=23) (Refer to Table 4.3).

In the nursing profession, male nurses are the minority (Muslim, Yasmin, Zuhaid and Aurang, 2017:1; Mac Williams, Schmidt and Bleich, 2013:38; Mac Williams *et al.*, 2013:38; Zamanzadeh, Valizadeh, Negarandeh , Monadi, and Arman Azadi, *et al.*, 2013:50). Statistics provided by the South African Nursing Council (SANC, 2017a: Online) complement this statement. According to SANC statistics from 2007 to 2016, the ratio between males and females in the nursing profession was approximately 1:8 with a total of 763 males and 6440 females in 2007; 1:8 with a total of 783 males and 6506 females in 2008; 1:8 with a total of 808 males and 6589 females in 2009; 1:8 with a total of 839 males and 6711 females in 2010; 1:7 with a total of 879 males and 6744 females in 2011; 1:7 with a total of 923 males and 6865 females in 2012; 1:7 with a total of 973 males and 6973 females in 2013; 1:7 with a total of 995 males and 7009 females in 2014; 1: 7 with a total of 1042 males and 7033 females in 2015; and 1:6 with a total of 1102 males and 7103 females; in 2016.

The fact that that diabetes affects overweight women three to four times more (Koo and Moon, 2016:176; Kautzky-Willer, Harreiter, and Pacini, 2015:281; van Rensburg, 2012:257) could have contributed to the number of female versus males interviewed.



In the study 22.6% (n=31) of the patients were males and the majority 77.4% (n=106) were female. The researcher used one and two decimal points to indicate the percentage of results.

**TABLE 4.3: Gender of nurses and patients (N=137)**

<b>Gender Nurses</b>	<b>Frequency = <i>f</i></b>	<b>Percentage = %</b>	<b>Gender patients</b>	<b>Frequency = <i>f</i></b>	<b>Percentage = %</b>
Male	23	16.8	Male	31	22.6
Female	114	83.2	Female	106	77.4
<b>TOTAL</b>	<b>137</b>	<b>100</b>	<b>TOTAL</b>	<b>137</b>	<b>100</b>

The 95% confidence interval for the percentage difference for paired data on gender shows no difference between nurses and patients [-15.4%; 3.9%].

#### **4.7.2 Age of patients participating in the study**

The youngest patient consulted was 24 years old, and the oldest 84 years old. The median age of diabetes patients in the study is 61 years old (Refer to Table 4.4).

Diabetes is a chronic condition, which affects all age groups (Hatting *et al.*, 2013, p.343). Type 2 diabetes is believed to affect older people, while type 1 diabetes is believed to affect adolescents and children (Jeon, Ko, Kwon, Kim, Kim, Kim, Song, Won, Lim, Jang, Kim, Oh, Kim & Cha, 2013:353). For the purpose of the study, patients from 18 years of age onwards were to be included in the study, but only patients from 24 years and above were observed.

**TABLE 4.4: Age of patients participating in the study**

N=137				
Age of patients	Frequency = <i>f</i>	Percentage = %	Cumulative Frequency	Cumulative Percent
24	1	0.7	1	0.7
25	1	0.7	2	1.5
30	1	0.7	3	2.2
32	2	1.5	5	3.7
34	3	2.2	8	5.9
35	1	0.7	9	6.6
37	2	1.5	11	8.0
39	2	1.5	13	9.5
42	2	1.5	15	11.0
43	1	0.7	16	11.7
46	2	1.5	18	13.0
47	3	2.2	21	15.0
49	2	1.5	23	16.8
50	2	1.5	25	18.0
51	2	1.5	27	20.0
52	2	1.5	29	21.0
53	3	2.0	32	23.0
54	4	3.0	36	26.0
55	6	4.0	42	36
56	4	3.0	46	33.5
57	3	2.0	49	36.0
58	6	4.0	55	40.0
59	6	4.0	61	44.5
60	7	5.0	68	50.0
61	3	2.0	71	52.0
62	8	6.0	79	58.0
63	4	3.0	83	60.5
64	3	2.0	86	63.0
65	4	3.0	90	66.0
66	3	2.0	93	68.0
67	6	4.0	99	72.0
68	3	2.0	102	74.0
69	4	3.0	106	77.0
70	4	3.0	110	80.0
71	1	0.7	111	81.0
72	3	2.0	114	83.0
73	4	3.0	118	86.0
74	5	3.6	123	90.0
75	4	3.0	118	86.0
76	1	0.7	128	93.0
77	2	1.5	130	95.0
78	3	2.0	133	97.0
79	1	0.7	134	98.0
80	1	0.7	135	98.5
84	2	1.5	137	100

### 4.7.3 Ages of nurses participating in the study

The lowest age of nurses who were involved in the health dialogue with diabetic patients was 26 years old (n=5) and the highest age, 62 years old (n=8). The median age for nurses was 49 years old. According to the South African Nursing Council, nursing as a profession consists of a large number of aging registered nurses. The South African Nursing Council statistics ((SANC, 2017b: Online) ) shows that only 5.0% of registered nurses and midwives are below 30 years old, 20.0% of nurses are between 30 and 39 years old, while 27.0% are between 40-49 years old. The highest percent of 30.0% are between 50-59 years old. Only 15.0% are between 60-69 years old. The remaining 3.0% are above 69 years old (Refer to Table 4.5).

**TABLE 4.5: Age profile of patients (N=137) and nurses (N=132) participating in the study**

Patients N=137 Nurses N=132					
Respondents	Minimum	Lower Quartile	Median	Upper Quartile	Maximum
Patient	24	54	61	69	84
Nurse	26	45	49	52	62

### 4.7.4 Home language of nurses and patients

The majority of patients (89.8%:n=123) that were consulted by nurses that also spoke Sotho. Four (2.9%) of the patients who spoke Sotho were managed by nurses whose home language is Afrikaans (Refer to Table 4.6).

**TABLE 4.6: Language of patients versus language of nurses who consulted patients**

N=137			
Patients' language	Nurses' language	Patients Frequency = <i>f</i>	Patients Percentage = %
Sotho	Afrikaans	4	2.9
Sotho	Sotho	123	89.8
Sotho	Other/Zulu	2	1.5
Other/Zulu	Afrikaans	1	0.7
Other/Zulu	Sotho	7	5.1
<b>TOTAL</b>		<b>137</b>	<b>100</b>

#### **4.7.5 Patients highest level of education (N=137)**

Fifty-five patients (40.1%) had some primary education and 28.5% (n=39) of patients had some secondary education. Only 0.7% (n=1) of the patients had a diploma. (Refer to Table 4.7). Research suggests that poor literacy level is associated with poor health outcomes (Tseng, Liao, Wen and Chuang, 2016:30; Souza, Apolinario, Magaldi, Busse, Campora, and Jacob-Filho, 2016:514; Xu, Rothman, Li, Chen, Xia, Fang, Gao, Yan, Zhou, Jiang, Liu, Zhou, Wang, Chen, Liu and Liu, *et al.*, 2014:.2).

Kent *et al.*, (2013:76) results compliment the study by suggesting that health information should be tailored according to the patients' educational level for it to yield positive results in the management of diabetes. Diabetes is managed through self-care. To engage in self-care, patients should be provided with information which includes, among others, printed material, verbal instructions, and patient education courses (Friis Vind, Simmons and Maindal, 2016:.2; Vasuthevan & Mthembu, 2016:64). The same authors suggested that it might be difficult for people with poor literacy level to follow instructions and this might lead to them to not be able to manage their illnesses (Friis *et al.*, 2016:2). Below are the categories indicating the level of education for patients.

**TABLE 4.7: Patients highest level of education (N=137)**

N=137		
Categories	Frequency = <i>f</i>	Percentage = %
No schooling	23	16.8
Some primary education	55	40.1
Completed primary school	9	6.6
Some secondary education	39	28.5
Completed secondary education	10	7.3
Diploma	1	0.7
<b>TOTAL</b>	<b>137</b>	<b>100</b>

#### 4.7.6 Nurses highest level of education (N=137)

The level of education for nurses was categorised under certificate, diploma, or degree. Almost 63.5% (n=87) of nurses indicated that they have a diploma, while 36.5% (n=50) of nurses stated that they obtained a degree. Refer to Table 4.8. The study included both the professional nurses and staff nurses. South Africa has three categories of nurses: professional (registered) nurses with a diploma or degree training, enrolled (staff) nurses, and nursing assistants or auxiliaries (South African Nursing council, Nursing Act 2005. Act No. 33 of 2005).

**TABLE 4.8: Nurses highest level of education (N=137)**

N=137		
Categories	Frequency = <i>f</i>	Percentage = %
Diploma	87	63.5
Degree	50	36.5
<b>TOTAL</b>	<b>137</b>	<b>100</b>

In Table 4.9, the qualifications of patients and nurses during consultation are indicated. Most consultations with patients were done by nurses with a diploma in nursing (n=87). Twenty-three consultations were done by nurses who indicated that they have a degree (n=50).

**TABLE 4.9: Patients consulted by nurses categorised according to level of education (N=137)**

Patient qualifications	Nurses qualifications				Patients Consultations Observed
	Diploma		Degree		
No schooling	13	56.52	10	43.48	23
Some primary education	32	58.18	23	41.82	55
Completed primary school	5	55.56	4	44.44	9
Some secondary education	30	76.92	9	23.08	39
Completed secondary education	7	70.00	3	30.00	10
Diploma	0	0.00	1	100.0	1
	87		50		137

#### **4.7.7 Patients feedback on whether they received information on diabetes in the last 12 months**

Some patients 33.6% (n=46) reported that they have not received any information on diabetes over the past 12 months. However, many 66.4% (n=91) reported to have received diabetic information from the clinic (Refer to Table 4.10). Literature suggest that every patient has a right to be given the adequate and correct information that is appropriate to his or her illness, and specific needs in order to attain and maintain health (Jooste, 2016:197; Vasuthevan & Mthembu, 2013:51; Meyer, Naudé, Shangase and van Niekerk, 2010:142). Studies suggest that a knowledgeable patient plays an important role in managing his or her disease by avoiding rapid progression of the disease and its complications (Loskutova, Tsai, Fisher, LaCruz, Cherrington, Harrington, Turner, and Pace, 2016:79; Shrivastava and Ramasamy, 2013:2; Snow, Humphrey and Sandall, 2013:1).

**TABLE 4.10: Information on diabetes received by patients in the last 12 months**

N=137		
Categories	Frequency = <i>f</i>	Percentage = %
Yes	91	66.4
No	46	33.6
<b>TOTAL</b>	<b>137</b>	<b>100</b>

#### **4.7.8 Type of diabetes related information received by patients over the past 12 months**

Types of information received for the past 12 months range from diet, treatment, foot care, exercise, wound care, complications, blindness, management, clinical manifestations, causes and others. Patients received information on different topics such as clinical manifestations and complications (n=10:11%); treatment only (n=5:5.5%), and others (n=6:6.6%). Less than fifty per cent of the patients 48.3% (n=44) received information on a diabetic diet only. However, information related to a diabetic diet were often combined with other important lifestyle issues such as diet and treatment (n=13:14.3%) and diet and exercise (n=4:4.4%). Limited information related to footcare was given to (n=1:1.1%) of patients. Information given on diet and footcare was also (n1:1.1%). Below are the categories for the types of information on diabetes received by patients (Refer to Table 4.11).

**TABLE 4.11:** Information on diabetes received by patients over the past 12 months (N=91)

N=91		
Categories	Frequency = <i>f</i>	Percentage = %
Diet	44	48.3
Diet and treatment	13	14.3
Diet and foot care	1	1.1
Diet and exercise	4	4.4
Diet and other	1	1.1
Diet, treatment and wound care	1	1.1
Blindness	1	1.1
Other	6	6.6
Treatment	5	5.5
Management of condition	1	1.1
Clinical manifestations and complications	10	11
Causes and treatment	1	1.1
Foot care	1	1.1
Wound care and complications	1	1.1
Six monthly medical check up	1	1.1

#### 4.7.9 Diabetes related training received by nurses during the past 12 months (N=137)

Few nurses 4.4% (n=6) reported that they received training in regard to diabetes over the past 12 months, while a concerning 95.6% (n=131) of nurses reported not to have received any training in regard to diabetes related issues over the past 12 months (Refer to Table 4.12).

Nurses need to be trained in order to enable them improve their knowledge and skills and to ensure that they perform their tasks efficiently and thereby improve patients' health outcomes (Allie, van Wyk, Coetzee and van Wyk, 2017:22; Jooste, 2016:24; Updated management of type 2 diabetes in Adults at Primary Care Level, 2014:12; Shrivastava and Ramasamy, 2013:2). Parker et al. (2009:1435) reiterated by indicating that nurses need more exposure and training in lifestyle modification.



Parker *et al.* (2010:1435) also indicated that nurse training should be structured in such a way that health promotion is emphasised.

Nursing, as a profession, involves numerous opportunities to communicate with patients. Receiving training on effective communication skills will enhance the nurse-patient relationship. Patients will be more at ease and feel free to talk about their problems when communication is conducted by skilled nurses (Mogotlane *et al.*, 2015:206; van Vuren, 2012:214). Continuing education programmes, as part of staff development, fosters lifelong learning, enables nurses to be competent, and enables nurses to keep update with current healthcare trends (Jooste, 2016:24).

**TABLE 4.12: Diabetes related training received by nurses during the past 12 months (N=137)**

N=137		
Categories	Frequency = <i>f</i>	Percentage = %
Training not received	131	95.6
Training received	6	4.4

#### **4.7.10 Topics related to diabetes related training received by nurses over the past 12 months (N=6)**

One hundred and thirty-one respondents did not complete this question. Out of the 4.4% (n=6) nurses who indicated that they received training on diabetes related issues, 83.3% (n=5) nurses received training on the diagnosis of diabetes, and 16.7% (n=1) nurse received information on diet and foot-care (Refer to Table 4.13).

**TABLE 4.13: Topics related to diabetes training received by nurses over the past 12 months (N=6)**

N=6		
Categories	Frequency = <i>f</i>	Percentage = %
Diet and foot-care	1	16.7
Diagnosis	5	83.3

#### 4.7.11 Communication/talk received to others in the past 12 months (N=137)

Patients 49% (n=67) seemed to have received communication on diabetes through social media, while 51% (n=70) seemed not to be using social media. Refer to Table 4.14. Vasuthevan and Mthembu (2016, p.64) and Parker *et al.* (2009, p.1435) suggest that using mass-media to disseminate information is effective to improve knowledge on lifestyle modification. Other studies suggest that knowledgeable patients play an important role in managing their diseases by avoiding rapid progression and complications (Loskutova *et al.*, 2016:79; Shrivastava *et al.*, 2013:2; Snow *et al.*, 2013, p.1).

**TABLE 4.14: Communication/talk received to others in the past 12 months (N=137)**

N=137		
Categories	Frequency = f	Percentage = %
Yes	67	49.0
No	70	51.0

#### 4.7.12 Content received on communication/talk to others in the past 12 months patients (N=67)

Only 67 patients reported to have talked with other people about diabetes or received diabetic information from the media in the past 12 months. According to the patients who responded to the question, different topics were covered. Out of 67 patients who received diabetic information, 37.3% (n=25) received information on diet, 20.9% (n=14) respondents received information on clinical manifestations, and 14.9% (n=10) received information on complications (Refer to Table 4.15).

**TABLE 4.15: Content received during communication/talk to others in the past 12 months according to patients (N=67)**

N=67		
Categories	Frequency = <i>f</i>	Percentage = %
Diet	25	37.3
Diet and treatment	1	1.5
Diet and exercise	2	3.0
Complications	10	14.9
Dangers	1	1.5
Stress management	2	2.9
Eye care	1	1.5
Other such as treatment adherence, self-care, and lifestyle modification	5	7.5
Treatment	4	6.0
Clinical manifestations	14	20.9
Exercise	1	1.5
Exercise, treatment, and diet	1	1.5

#### 4.7.13 Communication/talk received to others by nurses in the past 12 months (N=133)

Most nurses, 87.2% (n=116) did not receive any communication skills related training. However, 12.8% (n=17) nurses accessed information using different sources (Refer to Table 4.16). Acquiring new information from other sources such as social media, and other sources providing health information, is important for nurses keep themselves updated with new information, which will help them in managing diseases and promote patient-centred care at a lower cost (Jooste, 2016:151; Rouleau *et al.*, 2015:2; Ventola, 2014:491). Parker *et al.* (2010:1435) and their results compliment the study by suggesting that nurses receive a majority of information through media.

**TABLE 4.16: Communication/talk received to others by nurses in the past 12 months (N=133)**

N=133		
Categories	Frequency = <i>f</i>	Percentage = %
Yes	17	12.8
No	116	87.2

#### **4.7.14 Content received during communication/talk to others in the past 12 months according to nurses (N=17)**

One hundred and twenty nurses reported to not have received communication from any source such as the media. Nurses who received information from other sources, in number, were 17. Out of these 17 nurses, 29.4% (n=5) received information on diet, 29.4% (n=5) received information on referral, and 29.4% (n=5) on clinical manifestations and complications. As well as this, two patients received information on eye care, diet, and foot care (Refer to Table 4.17).

**TABLE 4.17: Content received during communication/talk to others in the past 12 months according to nurses (N=17)**

N=17		
Categories	Frequency = <i>f</i>	Percentage = %
Diet	5	29.4
Eye care, management, foot care	2	11.8
Referrals	5	29.4
Clinical manifestations, complications	5	29.4

#### **4.7.15 Timeframe when diagnosed with diabetes mellitus (N=137)**

The minimum time diagnosed with diabetes was one year, and the maximum was 33 years. The median for diagnoses with diabetes was six years. Diabetes is a chronic disease.

#### **4.7.16 Experience in patient consultation**

The minimum time was one year, and the maximum 30 years. The median experience was 12 years.

## **4.8 PART 2: ANTECEDENTS**

Antecedents refer to incidents or events that must take place before characteristics will occur. The antecedents consisted of part 2, (Positive attitude) that included elements 13-26, and part 2.2 (Sensitivity/respect) that included elements 27-38. Each part will be discussed according to the sequence of observations indicated in the observational checklist. Objective 1 is, namely, to observe the extent to which the antecedents and empirical referents of health dialogue were used during health communication between nurses and diabetic patients in the Maluti-A-Phofung Municipality, Thabo Mofutsanyana district. The following two elements, positive attitude and sensitivity/respect, will be considered and addressed in the discussion of part 2 (Refer to Annexure H).

### **4.8.1 Results**

The researcher evaluated the tape recordings of 137 patients and 32 nurses obtained during nurse-patient interview at 31 healthcare centres. The observational checklist and the tape recorder were used as research techniques. Each nurse was evaluated per patient he or she interviewed.

A rubric consisting of 3 ratings was used to rate observations made during nurses' and patients' health communication. The three ratings were:

- 1      None of the specified elements observed, implying they were either not applicable or required
- 2      Element observed, but not consistently displayed or responded to
- 3      Element consistently displayed or responded to

A dichotomous scale of [yes = 1] or [no = 2] was also used to score some observations included in the observational checklist. The biostatistician at the Department of Biostatistics in the University of Free-State analyzed data using means and standard deviations or medians and percentiles for continuous data and frequencies and percentages for categorical data.

#### 4.8.1.1 Part 2.1: Positive attitude

Positive attitude is described as a learned behaviour that is psychologically expressed by evaluating and handling a particular problem in a caring and compassionate manner when coming in direct contact with it (Dilie and Mengistu, 2015:1; Hugies and Quinn, 2013:84; Middleton *et al.*, 2012:192; Quinn, 2001:236).

#### - Collaborative interaction (N=137)

Collaborative interaction was consistently observed in a large percentage between nurses. Results for both nurses and patients were evenly spread. In nurses and patients, 97.1% (n=133) collaborative interaction was consistent throughout the consultation. However, 2.9% (n=4) did not show consistent collaborative interaction. In 2.9% (n=4) of observations, nurses were the ones' providing the patients with advice (Refer to Table 4.18).

The South African Department of Health, updated management of type 2 diabetes in adults at primary care level (2014:60), is complemented by Mash, Levitt, Steyn, Zwarenstein and Rollick (2012:2) and Macdonald, Stubbe, Tester, Vernall, Dowel, Sew, Kenealy, Sheridan, Docherty, Gray and Raphael (2013:2) through their suggestions that two-way, interpersonal, verbal and non-verbal communication between nurses and patients is important to manage diabetes.

**TABLE 4.18: Observations of collaborative interaction between nurses and patients (N=137)**

N=137					
Nurse Total (n=137)			Patient Total (n=137)		
Nurse	Frequency = <i>f</i>	Percentage = %	Patient	Frequency = <i>f</i>	Percentage = %
2	4	2.9	2	4	2.9
3	133	97.1	3	133	97.1
The 95% confidence interval for percentage difference shows no difference between nurses and diabetic patients [-2.9%; 2.9%].					

- **Holistic approach (N=137)**

A holistic approach included observations related to physical, emotional, spiritual and social responses to illness.

*Physical, emotional, spiritual and social responses to illness*

Physical and social elements were consistently observed. Results on physical and social responses to illness were spread evenly 100% (n=137) for both nurses and patients. All nurses were able to respond physically throughout the consultation by either non-verbal response or by touch. Only one observation (0,7%) was made that nurses were able to respond to patients' emotional response to their illness. Most patients 99.0% (n=136) were not able to display their emotions. Spirituality was not consistently observed. Thirteen patients 9.5% expressed their spirituality by referring to a Higher Being. However, nurses responded to the spirituality of only few patients 9.0% (n=12) (Refer to Table 4.19).

Potter, Perry, Stockert, and Hall (2013:67) mentioned that the provision of a holistic approach considers social, emotional, and spiritual wellbeing, and other dimensions of individual patients as important aspects of physical wellbeing. Studies suggested that provision of fragmented nursing care produces a reactive approach instead of proactive approach thus leading to compromised patient centred care (South African Department of Health, Adult Primary Care, 2017; Ofori & Unachukwu, 2014, p.162).

**TABLE 4.19: Holistic approach (N=137)**

N=137						
	Nurses			Patients		
Elements	1	2	3	1	2	3
Physical			100%			100%
Emotional	99.0%		1.0%	99.0%		1.0%
Spiritual	91.2%		8.8%	90.5%		9.5%
Social			100%			100%
The 95% Confidence Interval for paired data on a physical response to illness shows no difference between nurses and diabetic patients [-4.0%; 2.1%].						
The 95% Confidence Interval for paired data on emotional response to illness also shows no difference between nurses and diabetic patients [-3.0%; 3.0%].						

### ***Dignity (N=137)***

A dichotomous scale ranging from yes, element displayed, to no, element not displayed, was used to score and to record results for dignity. Dignity was observed when nurses and patients introduced themselves in a friendly manner and when nurses ensured patients' privacy throughout the consultation.

#### ***Nurses and patients introduced themselves***

Dignity was consistently observed from nurses and patients introducing themselves in a friendly manner. The results related to maintaining dignity was spread evenly 100% (n=137) between nurses and diabetic patients. Both patients and nurses greeted each other in a friendly manner (Refer to Table 4.20).

**TABLE 4.20: Nurses and patients introduce themselves in a friendly manner (N=137)**

N=137			
Nurses Percentage = % and frequency = f		Patients Percentage = % and frequency = f	
100%	137	100%	137
The 95% Confidence Interval for percentage difference for paired data on introduction of themselves shows no difference between nurses and diabetic patients responses [-2.7%; 2.7%].			

#### ***Nurses ensured privacy throughout the consultation***

The rubric method ranging from 1-3 where three indicated that an element was consistently displayed or responded to, was used to score and to record the above observation. Maintenance of privacy was not consistently observed in some nurses.. The majority of nurses 96.3% (n=132) maintained privacy consistently with most patients. During three (2.2%) patient consultations, privacy was not maintained. In 1.5% (n=2) observations privacy was not consistently maintained (Refer to Table 4.21).



The patients' rights charter indicates that patients have the right to privacy (Jooste, 2016:150; Hattingh *et al.*, 2012:210). Kourkouta and Papathanasiou (2014:22) suggested that patients need to be managed in a peaceful environment without external distractions. Kourkouta and Papathanasiou (2014:22) further emphasized that the environment should be as such that confidentiality of the communication is ensured.

**TABLE 4.21: Privacy insured by nurses throughout the consultation (N=137)**

N=137		
Rating of observations	Frequency = <i>f</i>	Percentage = %
1	3	2.2
2	2	1.5
3	132	96.3

- ***Shared understanding and decision making (N=137)***

Shared understanding and decision making includes the following elements: identified reason for visit; identified a problem; agreed upon planned outcome; and clarified responsibilities/actions in order to reach outcome.

A dichotomous scale ranging from yes, element displayed, to no, element not displayed, was used to score and to record results for the elements listed under shared understanding/decision making.

*Identified reason for visit*

The element identified, the reason for visit, was consistently observed. The results for the reason stated for the visit were evenly spread between nurses and patients considering rating 1, yes. This indicates that both nurses and all diabetic patients 100% (n=137) verbalised an understanding of the reasons given for the visit (Refer to Table 4.22).

### *Identified a problem*

Identification of problem was not consistently observed. Most nurses 58.4% (n=80) were able to identify patients' problems, while 59.1% (n=81) patients were able to identify their problems. More than forty percent 41.6% (n=57) of nurses were not able to identify the patients' problems, and 40.9% (n=56) of patients were not able to identify or state their problems. The results were more evenly spread considering the categories yes and no (Refer to Table 4.23).

### *Agreed upon planned outcome*

The element, *agreed upon planned outcome*, was not consistently observed. Nurses and patients were rated the same considering the element related to an agreement between them on a planned outcome. Nurses and patients 89.0% (n=122) did not identify or address a measurable goal needed to address patients' health related problems. Only in case of 11.0% (n=15) observations did nurses manage to identify and state a measurable goal, which was acknowledged by patients (Refer to Table 4.24).

On the contrary, the studies indicate that to enhance positive health outcomes or treatment adherence and compliance, both nurses and patients need to agree on recommendations made by nurses and to develop a plan to address the recommendations (Shima *et al.*, 2014:1597; Kent *et al.*, 2013:76).

### ***Nurses' and patients' clarification of responsibilities/actions in order to reach an outcome***

*Nurses' and patient's clarification of responsibilities/actions in order to reach an outcome* was not consistently observed. Only 11.0% (n=15) of nurses clarified their responsibilities in the management of patients' identified problems. The same number of patients responded by indicating that they understood their responsibilities related to the stated outcome. Unfortunately, in most cases 89.0% (n=122) nurses did not discuss their responsibilities as healthcare providers with patients. Neither did

patients acknowledge their understanding of their responsibilities in managing their health issues (Refer to Table 4.25).

The responsibility to inform patients about their responsibilities in managing their diseases remains that of the nurse (Jooste, 2016:150; Muller, 2009:15).

**TABLE 4.22: Reason for visit stated (N=137)**

N=137					
Nurses			patients		
Rating of observations	Frequency = <i>f</i>	Percentage = %	Rating of observations	Frequency = <i>f</i>	Percentage = %
Yes	137	100	3	137	100
The 95% Confidence Interval for percentage difference for paired data on shared understanding and decision making related to reason for visit, shows no difference between nurses' and diabetic patients' responses [-2.7%; 2.7%].					

**TABLE 4.23: Identified a problem (N=137)**

N=137					
Nurses			patients		
Rating of observations	Frequency = <i>f</i>	Percentage = %	Rating of observations	Frequency = <i>f</i>	Percentage = %
Yes	80	58.4	1	81	59.1
No	57	41.6	2	56	40.9
The 95% Confidence Interval for percentage difference for paired data on identification of problem shows no significant difference between nurses' and diabetic patients' responses [-2.8%; 1.3%].					

**TABLE 4.24: Nurses and patients agreed on planned outcome (N=137)**

N=137					
Nurses			patients		
Rating of observations	Frequency = <i>f</i>	Percentage = %	Rating of observations	Frequency = <i>f</i>	Percentage = %
1	122	89.0	1	122	89.0
3	15	11.0	3	15	11.0
The 95% Confidence Interval for percentage difference for paired data on an agreed planned outcome shows not difference between nurses' and diabetic patients' responses [-2.6%; 2.6%].					

**TABLE 4.25: Nurses and patients clarified or understand responsibilities/ actions in order to reach outcome (N=137)**

N=137					
Nurses			patients		
Rating of observations	Frequency = <i>f</i>	Percentage = %	Rating of observations	Frequency = <i>f</i>	Percentage = %
1	122	89.0	1	122	89.0
3	15	11.0	3	15	11.0
The 95% Confidence Interval for percentage difference for paired data on clarified responsibilities shows no difference between nurses' and patients' responses [-2.6%; 2.6%].					

- ***Characteristics of role players (N=137)***

The characteristics of role players included trust, empathy, verification of meaning, and emotional support. The rubric method ranging from 1-3, where three indicated that an element was consistently displayed or responded to, was used to score and to record the characteristics of role players.

*Trust*

Trust was consistently observed. The characteristic of trust was shown when all nurses involved in the study established trust relationship to all 100% (n=137) patients. Hence all patients expressed their trust in nurses during consultation (Refer to Table 2.26). According to Perko and kreigh, (1999:179) a trusting relationship between the nurses and patients develops a therapeutic nurse-patient relationship. The study is supported by Hinkle and Cheever (2014:30). According to these authors, telling the truth enhances trust. Nurses need to provide patients with correct diagnosis and provide them with the care and information they need to manage their conditions.

### *Empathy*

Empathy was not consistently observed. The nurses displayed the characteristic empathy to only 3.0% (n=4) of patients. In 97.0% (n=133) of patients, empathy was not displayed. Only 3.0% of patients verbalized their problems to the nurses. Refer to Table 2.27. One of the nurses' ethical obligations is to empathise with patients (Jooste, 2016:154; Young, 20010:2-10). The updated management of type 2 diabetes in adults at primary care level (2014:60), was complemented by Uys and Middleton (2014:171), Middleton, Nicolson, O'Neil (2012:171), and Van Vuren (2012:231) by suggesting that nurses need to listen to their patients, understand them and their concerns, and acknowledge their feelings without experiencing the same emotions.

### *Verification of meaning*

Verification of meaning was consistently observed. Results were distributed evenly between the observations made of both nurses and patients. Nurses did not verify the meaning of words or gestures to 100% (n=137) patients. However, 100% (n=137) patients also did not display any inconsistency between the verbal and non-verbal responses (Refer to Table 4.28).

### *Emotional support*

Emotional support was consistently observed. Results were distributed evenly between the observations made of both nurses and patients. Nurses displayed emotional support to 100% (n=137) patients. Patients also verbalised their problems to nurses (Refer to Table 4.29).

**TABLE 4.26: Trust observed between nurses and patients (N=137)**

N=137					
Nurses			Patients		
Rating of observations	Frequency = <i>f</i>	Percentage = %	Rating of observations	Frequency = <i>f</i>	Percentage = %
3	137	100	3	137	100

**TABLE 4.27: Empathy observed between nurses and patients (N=137)**

N=137					
Nurses			patients		
Rating of observations	Frequency = <i>f</i>	Percentage = %	Rating of observations	Frequency = <i>f</i>	Percentage = %
1	133	97.0	1	133	97.0
3	4	3.0	3	4	3.0

**TABLE 4.28: Verification of meaning observed between nurses and patients (N=137)**

N=137					
Nurses			patients		
Rating of observations	Frequency = <i>f</i>	Percentage = %	Rating of observations	Frequency = <i>f</i>	Percentage = %
1	137	100	1	137	100

**TABLE 4.29: Emotional support observed between nurses and patients (N=137)**

N=137					
Nurses			patients		
Rating of observations	Frequency = <i>f</i>	Percentage = %	Rating of observations	Frequency = <i>f</i>	Percentage = %
3	137	100	3	137	100

#### 4.8.1.2 Part 2.2: Sensitivity / Respect

##### - **Gender sensitivity (N=137)**

A dichotomous scale ranging from yes, element displayed, to no, element not displayed, was used to score and to record results.

Gender sensitivity was consistently observed in most nurses and patients. Nurses 95.6% (n=131) were gender sensitive as they did not label their patients according to gender. Gender labelling was observed in only 4.4% (n=6) consultations. The same number of patients 4.4% (n=6) did address the gender labelling when it occurred (Refer to Table 4.30). The study is supported by the literature suggesting that nurses need to provide gender sensitive care (World Health Organisation Fact Sheet, 2015; World Health Organisation, 2010).

##### - **Culture/ beliefs: Sensitivity towards health Knowledge (N=137)**

The nurses 87.0% (n=119) asked most patients questions regarding their existing health knowledge, however in 13.0% (n=18) of the consultations the patients' health knowledge were not determined by nurses. Refer to Table 4.31. Literature suggests that healthcare providers should identify the knowledge patients have regarding the management of their diseases as to build on existing information (Vasuthevan & Mthembu, 2016:66; Hattingh *et al.*, 2012:344).

**TABLE 4.30: Gender sensitivity (N=137)**

N=137					
Nurses			Patients		
Categories	Frequency = <i>f</i>	Percentage = %	Categories	Frequency = <i>f</i>	Percentage = %
Yes	6	4.4	Yes	6	4.4
No	131	95.6	No	131	95.6
The 95% Confidence Interval for percentage difference for paired data on gender sensitivity shows no difference between nurses and diabetic patients [-2.9%; 2.9%].					

**TABLE 4.31: Health Knowledge (N=137)**

N=137					
Nurses			Patients		
Categories	Frequency = <i>f</i>	Percentage = %	Categories	Frequency = <i>f</i>	Percentage = %
Yes	119	87.0	Yes	119	87.0
No	18	13.0	No	18	13.0
The 95% Confidence Interval for the percentage difference for paired data on health knowledge shows no difference between nurses and diabetic patients [-2.5%; 2.5%].					

The rubric method ranging from 1-3, where three indicated that an element was consistently displayed or responded to, was used to score and to record results for Language/Linguistic difficulties, culture/beliefs, sensitivity towards health knowledge, health literacy, technology, political-legal context, ethical issues, and socio-economic influences.

- ***Language/Linguistic difficulties (N=137)***

Language and linguistic difficulties were not consistently observed in most patients. Clarification of concepts was not done in 81.0% (n=111) of the consultations as nurses were not using difficult words which patients did not understand. the terminology was only explained in 19% (n=26) of patients (Refer to Table 4.32).

The following studies complement the above by indicating that nurses should communicate with the patients in a language that is easily understood by them (South African Department of Health Adult primary care guidelines, 2016/17; South African Department of Health Updated Management of type 2 diabetes in adults at primary care level, 2014). Taylor, Nicolle, and Maguire's (3013:36) results complement the above studies by indicating that language barriers affect effectiveness of medical decision-making, treatment adherence and patients' adherence and understanding, and access to services.



- ***Culture/ beliefs: Sensitive regarding health beliefs (N=137)***

The culture/beliefs element was not consistently observed. Nurses were sensitive regarding patients' health beliefs in 73.0% (n=100) of the consultations with patients. They did not comment in a negative way to patients' health beliefs. Nurses commented negatively regarding patients' beliefs in 27.0% (n=37) of the consultations (Refer to Table 4.33). Adult primary care guidelines (2016/17) and the Updated Management of type 2 diabetes in adults at primary care level (2014) emphasise that nurses need to provide culturally sensitive health information during their communication with their patients. Hattingh, Dreyer, and Roos (2012:33) complement the study by emphasizing that, because South Africa is a multicultural country, the healthcare providers need not impose their culture on the patients.

- ***Validated understanding of health knowledge (N=137)***

Validated understanding of health knowledge was not consistently observed. Nurses validated an understanding of health knowledge during a few patient consultations 9.5% (n=13). At the same time, only a few patients (9.0%:n=12) responded to the validation of their health knowledge by nurses (Refer to Table 4.34). Studies in health communication suggest that nurses need to evaluate patients' understanding of information provided to them during their discussion (Shima *et al.*, 2014:1597; Kent *et al.*, 2013:76).

- ***Health Literacy***

The element, health literacy, was observed when patients' ability to read health information was considered and when nurses were sensitive towards patients' ability to understand health information, as well as when patients responded to these two issues.

### *Sensitivity towards patients' ability to read health information*

Sensitivity towards patients' ability to read health information was inconsistently observed. Nurses were only sensitive towards patients' ability to read health information in 17 (12.0%) of their consultations. The same percentage of the patients responded towards nurses' sensitivity on their ability to read health information. Refer to Table 4.35. According to Couture, Chouinard, Fortin and Hudon (2017:1), and Fincham (2013:1) poor functional health literacy can lead to poor health outcomes such as decrease in treatment adherence, poorer health, and higher mortality risk.

### *Sensitivity toward patients' ability to understand health information*

Sensitivity toward patients' ability to understand health information was inconsistently observed. Nurses (71.5%:n=98) asked patients if they understood the health information given to them or not. The same number of patients (71.5%:n=98) responded to the nurses' question. Only a few patients 28.5% (n=39) were not asked if they understood the health information or not (Refer to Table 4.36). Couture *et al.* (2017:1); and Fincham (2013:1) suggest that patients use the health information they understand to promote and maintain their health. Wu *et al.* (2014:194) states that nurses should confirm that patients understand what has been discussed rather than assuming that they understand health information.

## **- Technology (N=137)**

### *Sensitivity towards electronic devices used by patients*

Sensitivity towards electronic devices used by patients was not consistently observed. Only 4.0% (n=5) of the patients were asked by nurses if they have access to a mobile phone or any other means of technology which remind them to take medication. However, 3.0% (n=4) of the patients agreed to be using technology as a reminder. Most nurses (n=132, 96.0%) did not ask patients about the type of technology they use to remind them take medication on time (Refer to Table 4.37).

As most patients are adults, they need to have access to devices and know and understand the importance of using digital technology in managing their conditions first before they can be able to use it. This will enable them to use it effectively in promoting their health (Botha & Booie, 2016:7; Kent *et al.*, 2013:77; mHealth4CBS in South Africa, 2012).

**TABLE 4.32: Language/Linguistic difficulties (N=137)**

N=137					
Nurses			Patients		
Categories	Frequency = <i>f</i>	Percentage = %	Categories	Frequency = <i>f</i>	Percentage = %
1	111	81.0	1	111	81.0
3	26	19.0	3	26	19.0
The 95% Confidence Interval for percentage difference for paired data on language/ linguistic difficulties shows no difference between nurses and diabetic patients responses [ [-2.2%; 2.2%].					

**TABLE 4.33: Culture beliefs: Sensitivity regarding health beliefs (N=137)**

N=137					
Nurses			Patients		
Categories	Frequency = <i>f</i>	Percentage = %	Categories	Frequency = <i>f</i>	Percentage = %
1	100	73.0	1	100	73.0
3	37	27.0	3	37	27.0
The 95% Confidence Interval for percentage difference for paired data shows no difference between nurses and diabetic patients responses [-1.9%; 1.9%].					

**TABLE 4.34: Validated understanding of health knowledge**

N=137					
Nurses			Patients		
Categories	Frequency = <i>f</i>	Percentage = %	Categories	Frequency = <i>f</i>	Percentage = %
1	124	90.5	1	125	91.0
3	13	9.5	3	12	9.0
The 95% Confidence Interval for the percentage difference for paired data on validation of understanding health knowledge shows no statistical significant difference between responses by nurses and diabetic patients [-3.8%; 2.1%].					

**TABLE 4.35: Sensitivity towards patients' ability to read health information (N=137)**

N=137					
Nurses			Patients		
Categories	Frequency = <i>f</i>	Percentage = %	Categories	Frequency = <i>f</i>	Percentage = %
1	120	88.0	1	120	88.0
3	17	12.0	3	17	12.0
The 95% Confidence Interval for the percentage difference for paired data on sensitivity towards patients' ability to read health information shows no difference between nurses and diabetic patients' responses [-2.5%; 2.5%].					

**TABLE 4.36: Sensitive toward patients' ability to understand health information**

N=137					
Nurses			Patients		
Categories	Frequency = <i>f</i>	Percentage = %	Categories	Frequency = <i>f</i>	Percentage = %
1	39	28.5	1	39	28.5
3	98	71.5	3	98	71.5
The 95% Confidence Interval for the percentage difference for paired data on sensitivity towards patients' ability to understand health information shows no difference between observations made of both nurses and diabetic patients [-1.8%; 1.8%].					

**TABLE 4.37: Sensitivity towards electronic devices used by patients (N=137)**

N=137					
Nurses			Patients		
Categories	Frequency = <i>f</i>	Percentage = %	Categories	Frequency = <i>f</i>	Percentage = %
1	132	96.0	1	133	97.0
3	5	4.0	3	4	3.0
The 95% Confidence Interval for the percentage difference for paired data on sensitivity towards electronic devices used by patients shows no difference between responses by nurses and diabetic patients [-4.1%; 2.3%].					

- ***Political-legal context (N=137)***

*Consultation held within a legal framework*

Consultation held within a legal framework was not consistently observed. Consultations were held within the legal framework in 47.0% (n=64) of the observations of nurses during their consultations with patients. In 1.5% (n=2) of cases, these consultations were partially held within legal framework. However in 52.0% (n=71) of the cases, proof that nurses acted within a legal framework, such as referring patients according to policy, was not observed (Refer to Table 4.38). In contrast, the nurse's code of conduct suggests that patients need to be referred accurately and in time (Vasuthevan & Mthembu, 2013:35; Meyer *et al.*, 2009:145).

- ***Ethical Issues (N=137)***

*Requested sensitive information to be discussed*

Requested sensitive information to be discussed was not consistently observed. Results for both nurses and patients were evenly spread. Nurses (9.0%:n=13) inquired from patients on whether or not sensitive information could be discussed with them. In most consultations (91.0%:n=124) nurses did not request to discuss sensitive information (Refer to Table 4.39).

- ***Socio-economic influences (N=137)***

*Sensitivity towards socio-economic influences on treatment*

Sensitivity towards the socio-economic influences on treatment was not consistently observed. Results for both nurses and patients were evenly spread. Nurses were sensitive towards patients' socio-economic influences on treatment in 67.0% (n=92) of consultations. In 32.0% (n=44) of consultations nurses were not sensitive towards patients' socio-economic influences on treatment. Refer to Table 4.40. Patients don't need the nurses who tell or instruct them what to eat or not, they need nurses who

will provide a non-judgemental education on the type of food to be eaten by them according to their conditions (Wu *et al*, 2014:188; Kent *et al*, 2013:76). Studies have showed that the lower socio-economic groups are the ones mostly affected by diseases (Vasuthevan & Mthembu, 2016:6). Studies also suggest that people from lower socio-economic groups are less motivated in engaging in behaviour change patterns which can improve their health status (Vasuthevan & Mthembu, 2016:6). Hinkle and Cheever (2014:131) suggest that these patients need close ongoing monitoring and motivation.

- ***Evaluation of previous strategies used to reach identified goals (N=137)***

Results for both nurses and patients were evenly spread. Nurses evaluated previous strategies used to reach the identified goal to only 39.0% (n=53) of the diabetic patients. However, in 61.0% (n=84) of patient consultations, strategies were not evaluated (Refer to Table 4.41).

**TABLE 4.38: Consultation held within a legal framework (N=137)**

N=137					
Nurses			Patients		
Categories	Frequency = <i>f</i>	Percentage = %	Categories	Frequency = <i>f</i>	Percentage = %
1	71	52.0	1	72	53.0
2	2	1.0	2	2	1.0
3	64	47.0	3	63	46.0
The 95% Confidence Interval for the percentage difference for paired data on consultations within a legal framework shows no difference between responses by nurses and diabetic patients [-2.7%; 1.3%].					

**TABLE 4.39: Request whether sensitive information could be discussed (N=137)**

N=137					
Nurses			Patients		
Categories	Frequency = <i>f</i>	Percentage = %	Categories	Frequency = <i>f</i>	Percentage = %
1	124	91.0	1	124	91.0
3	13	9.0	3	13	9.0
The 95% Confidence Interval for the percentage difference for paired data on request if sensitive information could be discussed shows no statistical significant difference between answers provided by nurses and diabetic patients [-3.3%; 3.3%].					

**TABLE 4.40: Sensitive towards socio-economic influences on treatment (N=137)**

N=137					
Nurses			Patients		
Categories	Frequency = <i>f</i>	Percentage = %	Categories	Frequency = <i>f</i>	Percentage = %
1	44	32.0	1	44	32.0
2	1	1.0	2	1	1.0
3	92	67.0	3	92	67.0
The 95% Confidence Interval for the percentage difference for paired data on sensitivity towards socio-economic influences on treatment shows no difference between nurses' and diabetic patients' responses [-1.7%; 1.7%].					

**TABLE 4.41: Evaluation of previous strategies used to reach identified goals (N=137)**

N=137					
Nurses			Patients		
Categories	Frequency = <i>f</i>	Percentage = %	Categories	Frequency = <i>f</i>	Percentage = %
1	84	61.0	1	84	61.0
3	53	39.0	3	53	39.0
The 95% Confidence Interval for the percentage difference for paired data on evaluation of previous strategies to reach identified goals shows no difference between nurses' and diabetic patients' responses [-1.5%; 1.5%].					

## 4.9 PART 3: EMPIRICAL REFERENTS

Walker and Avant (2011:168) describe empirical referents as the means by which the researcher measure the characteristic. In this study the researcher measured shared responsibility/ Decision-making.

### 4.9.1 Results

A dichotomous scale ranging from yes, patients and nurses experienced a sense of shared responsibility, and that both parties benefited from the consultation, as well as whether patients' circumstances were considered, to no, patients and nurses did not experience a sense of shared responsibility, did not benefit from the consultation, and patients' circumstances were not considered, were used to score and to record results.

#### 4.9.1.1 *Shared responsibility/Decision-making (N=137)*

One hundred and thirty-four (97.81%) patients and nurses experienced a sense of shared responsibility/Decision-making. Only two nurses (1.46%) negative feedback did not correspond with the positive feedback by two of their patients, and one patient did not share the positive feedback from the nurse who managed her consultation (Refer to Table 4.42).

**TABLE 4.42: Patients and nurses experiencing a sense of shared responsibility/Decision-making (N=137)**

N=137			
Patients	Nurses	Frequency = f	Percentage = %
Yes	Yes	134	97.81
Yes	No	2	1.46
No	Yes	1	0.73
<b>TOTAL</b>		<b>137</b>	<b>100</b>
The 95% Confidence Interval for the percentage difference for paired data on experiencing a sense of shared responsibility shows no difference between responses by nurses and diabetic patients [-4.5%; 2.7%].			

#### - *Motivation by patients on why they experienced a sense of shared responsibility (N=136)*

A sense of shared responsibility/Decision-making was consistently observed. Most patients indicated to have experienced a sense of shared responsibility. A percentage of patients 24.82% (n=34) reported to have experienced a sense of shared responsibility when nurses were informing them and asking them about the type of diet they should follow. Furthermore, 14.60% (n=20) of the patients indicated that shared responsibility was experienced due to the method of communication used between them and the nurses. Regarding medication, 8.76% (n=12) of patients indicated that the nurses informed or asked them about the correct usage of medication. Eleven, 8.03% patients responded positively regarding the nurses being able to provide them with diabetes information and asking them diabetes related questions. However, 7.30% (n=10) of patients provided responses unrelated to



motivate whether they experienced shared responsibility. Only 0.72% (n=1) reported not to have experienced a sense of shared responsibility (Refer to Table 4.43).

**TABLE 4.43: Motivation by patients on why they experienced a sense of shared responsibility (N=136)**

N=136		
Categories	Frequency =f	Percentage = %
Diet	34	25.0
Diet and Treatment	4	3.0
Diet, Treatment and Management	1	0.7
Diet and Management <sup>3</sup>	1	0.7
Diet and Exercise	1	0.7
Diet and Six monthly medical check up	5	3.7
Complications	10	7.3
Treatment	12	8.8
Treatment and Diet	6	4.4
Management	9	6.6
Causes	11	8.0
Causes and Diet	1	0.7
Causes and Management	1	0.7
Foot care	3	2.2
Exercise	20	15
Exercise and Diet	1	0.7
Exercise and Treatment	1	0.7
Exercise and Diet	1	0.7
Six monthly medical check up	8	6.0
Six monthly medical check-up and Diet	5	3.7
Six monthly medical check-up and Exercise	1	0.7

- ***Motivation by nurses on why they experienced a sense of shared responsibility (N=135)***

A number of nurses 22.63% (n=31) reported that patients know more about their medication (Refer to Table 4.44).

Most nurses indicated to have experienced a sense of shared responsibility. Of those nurses who answered yes, 22.63% (n=31) motivated that they experienced a sense of shared responsibility when they were informing and asking patients about the type of treatment to take and when patients were informing them on how are they taking their treatment. Furthermore 21.90% (n=30) nurses based their motivation for experiencing a sense of shared responsibility on the fact that patients have ample knowledge regarding their condition and 10.2% (n=14) stated that patients know the type of diet they should follow. Two nurses (1.46%) did not experience a sense of shared responsibility and provided no motivation (Refer to Table 4.44).

**TABLE 4.44: Motivation by nurses on why they experienced a sense of shared responsibility (N=135)**

N=135		
Categories	Frequency =f	Percentage = %
Diet	14	10.0
Diet and Treatment	2	1.4
Diet and Management	1	1.0
Diet, Wound care and Treatment	1	1.0
Diet, Management and Six monthly medical check up	1	1.0
Complications	5	3.7
Treatment	31	23.0
Treatment and Diet	3	2.0
Treatment and Management	3	2.0
Treatment and Foot care	1	1.0
Management	30	22.0
Management and Diet	1	1.0
Management Treatment	2	1.4
Management and Foot care	1	1.0
Clinical manifestations	1	1.0
Causes	7	5.0
Causes and Treatment	1	1.0
Causes and Foot care	2	1.4
Causes and Foot care	1	1.0
Foot care	8	5.9
Exercise	9	6.7
Exercise and Management	1	1.0
Wound care	2	1,4
Management and Six monthly medical check up	5	3.7
Management and Treatment	2	1.4

#### **4.9.1.2      *Patients and nurses benefited from the consultation*** **(N=137)**

Most patients and nurses 98.54% (n=135) benefited from the consultation. However, two patients (1.46%) gave positive feedback on this issue, whilst the two nurses who consulted them, reported not to have not benefited from the consultation but did not specify why they did not benefit (Refer to Table 4.45).

**TABLE 4.45:      Patients and nurses benefited from the consultation**  
**(N=137)**

N=137			
Patients	Nurses	Frequency = f	Percentage = %
Yes	Yes	135	98.54
Yes	No	2	1.46
TOTAL		137	100
The 95% Confidence Interval for the percentage difference for paired data on benefited from the consultation shows no difference between nurses and diabetic patients responses [-5.2%; 1.5%].			

#### **-      *Patients motivation why they benefited from the consultation*** **(N=125)**

Most patients benefited from the consultation. However, 22.4% (n=28) of the patients indicated that they agreed with nurses on the type of food to eat and to avoid. Furthermore, 15.2% (n=19) of the patients emphasized that they both agreed with the nurses on the importance of physical exercise. In addition, 13.6% (n=17) patients responded positively regarding the communication method used between themselves and the nurses. Patients acknowledged the way in which nurses talked to them. Regarding required information, 11.2% (n=14) patients indicated that nurses were able to provide them with information they did not have or did not understand. In addition, 9.6% (n=12) patients indicated that nurses advised them on the way in which to take treatment and the importance of taking treatment as prescribed. However, 5.6% (n=7) patients provided unrelated responses (Refer to Table 4.46). Vasuthevan and Mthembu (2016:63) suggested that if patients are provided with necessary information, it will help them manage their health. In addition, Vasuthevan

and Mthembu (2016:63) emphasized that patients need to be empowered with information to understand the principles of healthy living.

**TABLE4.46: Patients' motivation why they benefited from the consultation (N=125)**

N=125		
Categories	Frequency =f	Percentage = %
Diet	28	22.0
Diet and Cause	1	1.0
Diet and Six monthly medical check up	3	2.0
Diet, Six monthly medical check-up and Treatment	1	1.0
Complications	7	5.6
Treatment	12	9.6
Treatment and Diet	2	1.6
Management	11	8.8
Management, Six monthly medical check up	1	1.0
Cause	14	11.2
Cause and Diet	1	1
Foot care	2	1.6
Exercise	17	13.6
Wound care	1	1
Six monthly medical check up	19	15
Six monthly medical check-up and Diet	3	2
Six monthly medical check-up and Management	1	1
Six monthly medical check-up and Exercise	1	1

- ***Nurses' motivations why they benefited from the consultation (N=133)***

Some nurses 16.5% (n=22) reported to have benefitted from the consultation when realising that patients have information about their medication, when to take medication, and how to take medication. Furthermore, some nurses 15.3% (n=21) also realised that patients will have information on both medication and their condition. In addition, some nurses 14.0% (n=19) realised that patients required more information from them. Some Nurses 7.5% (n=10) also realised that patients have information about the importance of their physical status. However, 6.7% (n=9) of nurses gave unrelated responses (Refer to Table 4.47).

**TABLE 4.47: Nurses' motivation on why they benefited from consultation (N=133)**

N=133		
Categories	Frequency =f	Percentage = %
Diet	14	10.5
Diet, Treatment	3	2.2
Diet, Treatment, Management	1	0.8
Diet , Management	1	0.8
Diet, Causes	1	0.8
Diet, Wound care	1	0.8
Diet, Six monthly medical check up	2	1.5
Complications	9	6.7
Treatment	22	16.5
Treatment, Diet	2	1.5
Treatment, Diet and Management	1	0.8
Treatment, Diet, Management and Six monthly medical check up	1	0.8
Treatment and Management	2	1.5
Treatment and Six monthly medical check up	1	0.8
Management	21	15.7
Management and treatment	2	1.5
Management and exercise	1	0.8
Clinical manifestations	1	0.8
Causes	19	14
Causes and Management	1	0.8
Foot care	4	3.0
Exercise	8	6.0
Exercise and Causes	1	0.8
Wound care	2	1.5
Six monthly medical check-ups	10	7.5
Six monthly medical check-ups and management	1	0.8
Six monthly medical check-ups and clinical manifestations	1	0.8

#### 4.9.1.3 **Considered patients' circumstances during consultation (N=137)**

Most patients (97.81% (n=134) indicated that nurses considered their circumstances during the consultation. One hundred and thirty-one nurses confirmed this feedback. However, 2.18% (n=3) patients and 4.37% (n=6) nurses indicated that the patients' circumstances were not considered. Refer to Table 4.48. Research suggests that poverty is indirectly associated with poor self-management of diabetes (Houle *et al.*, 2015:1). Houle *et al.*, (2015:2) suggest that the way patients perceive their disease, how they cope with stress related to the illness, and their diet and depressive symptoms have an impact on diabetes self-management due to the effect of their socio-economic status.

**TABLE 4.48: Considered patients' circumstances during consultation (n=137)**

N=137			
Patients	Nurses	Frequency = f	Percentage = %
Yes	Yes	129	94.16
Yes	No	5	3.65
No	Yes	2	1.46
No	No	1	0.73
<b>TOTAL</b>		<b>137</b>	<b>100</b>
The 95% Confidence Interval for the percentage difference for paired data on considered patients' circumstances shows no difference between nurses and diabetic patients responses [-7.1%; 2.3%].			

#### - **Patients motivation that nurses considered their circumstances (N=130)**

Most patients 20.0% (n=26) felt that nurses acknowledged their circumstances when nurses were communicating with them in a relaxed manner. Furthermore, 19.23% (n=25) of the patients realised that nurses considered their circumstances when they were asked and advised about the correct diet to eat. In addition, 11.54% (n=15) of the patients reported that nurses considered their circumstances when the nurses asked and advised them about the importance of physical health. The same number

of patients indicated that nurses asked and advised them about medication. However, 10.0% (n=13) patients provided unrelated responses (Refer to Table 4.49).

**TABLE 4.49: Patients' motivation that nurses considered their circumstances (N=130)**

N=130		
Categories	Frequency =f	Percentage =%
Diet	25	19.2
Diet and Six monthly medical check up	6	4.6
Complications	13	10.0
Treatment	15	11.5
Treatment, Diet and Six monthly medical check up	1	0.8
Treatment and Six monthly medical check up	2	1.5
Treatment, Six monthly medical check up and Diet	1	0.8
Management	9	6.9
Clinical manifestations	6	4.6
Foot care	2	1.5
Exercise	26	20.0
Exercise and Treatment	1	0.8
Exercise and Causes	1	0.8
Exercise and Six monthly medical check-up	1	0.8
Wound care	3	2.3
Wound care and Treatment	1	0.8
Six monthly medical check-ups	15	11.5
Six monthly medical check-ups and Diet	1	0.8
Six monthly medical check-ups and Wound care	1	0.8

- ***Nurses' motivation that they consideration patients' circumstances during consultation***

Some nurses 19.9% (n=26) considered patients' circumstances by asking them question about their diet, physical status 16.03% (n=21), financial status 11.45% (n=15), and medication 9.16% (n=12). However, a few nurses 3.05% (n=4) provided unrelated responses (Refer to Table 4.50).



**TABLE 4.50: Nurses' motivations that they considered patient's circumstances during consultation (N=131)**

N=131		
Categories	Frequency = f	Percentage = %
Diet	26	19.9
Diet and Wound care	6	4.6
Complications	4	3.1
Treatment	12	9.2
Treatment and Diet	3	2.3
Diet and Six monthly medical check up	1	0.7
Management	6	4.6
Management and Diet	1	0.7
Management and Wound care	1	0.7
Management, Wound care and Diet	1	0.7
Management and Six monthly medical check up	3	2.3
Causes and Treatment	1	0.7
Causes and Management	1	0.7
Exercise	8	6.1
Exercise and Wound care	1	0.7
Wound care	15	11.5
Wound care and Diet	10	7.7
Wound care, Diet and Six monthly medical check-up	1	0.7
Wound care and Treatment	1	0.7
Wound care and Six monthly medical check-up	2	1.5
Six monthly medical check-ups	21	16.0
Six monthly medical check-ups and Diet	4	3.0
Six monthly medical check-ups, Diet and Wound care	1	0.7
Six monthly medical check-ups, Wound care and Management	1	0.7

#### **4.9.1.4 Length of consultation**

The minimum time taken for an interview was 5 minutes, and the maximum 89 minutes. The median time was 19 minutes.

## **4.10 SUMMARY**

The observational checklist was used to assess whether health dialogue elements between nurses and diabetic patients were identified during health communication and the results were described in this chapter. The results were discussed according to the sequence of the observational checklist.

Health dialogue encourages self-management in patients taking chronic medication. When engaging patients in health communication, it is important for the healthcare providers to include elements of health dialogue. This will allow patients to feel relaxed when communicating with them, enquiring about the information they do not know, and discussing their problems with healthcare providers.

In Chapter 5 the researcher will discuss the research process, results, recommendations, gaps, proposed research, and conclusions.

## 4.11 REFERENCES

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***Research process, results, recommendations,  
gaps, proposed research and conclusions***

Chapter 4 included the analysis and interpretation of results related to objective (1) namely, to observe if antecedents which include a positive attitude, sensitivity and respect and training; as well as the Empirical referents which refer to shared responsibility and decision making, mutual beneficial health plan, and context sensitive communication strategies, were applied during health communication between nurses and diabetic patients.

## 5.2 REFLECTION ON THE RESEARCH PROCESS

The researcher managed to ask permission to conduct the study from both the nurses and patients. The researcher also observed the consultation of the nurses and diabetic patients in the specified clinics without any hassles. As the study was funded by the student, executing the study over budget presented a challenge. What

was expensive was transport money. The researcher had to provide the fieldworker with the transport money as they were to conduct the study in different clinics. Also, the researcher had to pour petrol in the car she was travelling with to reach the clinics. In addition, the researcher had to buy the photocopy paper and the ink cartridges to print the articles, observational checklists, guidelines, and consent forms and information sheets for both the diabetic patients and nurses.

### 5.3 IMPORTANT RESULTS OBTAINED USING AN OBSERVATIONAL CHECKLIST OF HEALTH DIALOGUE ELEMENTS

An overview of important results obtained using an observational checklist of health dialogue elements are presented below ( Refer to Tables 5.1-5.3).

**TABLE 5.1: Observational Checklist Part 1: Nurse and patient profile**

DESCRIPTION	PATIENT =f and %	NURSE = f and %
Gender	106 [77.4] Female	114 [83.2] Female
Age	24-84 years	26-62 years
Language	129 [94.16] Sesotho	130 [94.89] Sesotho
Level of education	55 [40.14] Some Primary schooling	87 [63.50] Diploma
Diabetes related training	46[33.6] not received	131[95.6] not trained
Communication/Talk to others	70[51.0%]	116[87.2%]
Experience patient consultation		1-12years

**TABLE 5.2: Observational Checklist Part 2: Antecedents and elements (to be continued)**

ANTECEDENT	ELEMENTS	PATIENTS			NURSES		
		ELEMENT NOT OBSERVED =f and %	ELEMENT OBSERVER BUT NOT CONSISTENTLY =f and %	ELEMENT CONSISTENTLY OBSERVED =f and %	ELEMENT NOT OBSERVED =f and %	ELEMENT OBSERVER BUT NOT CONSISTENTLY =f and %	ELEMENT CONSISTENTLY OBSERVED =f and %
2.1 Positive attitude	Collaborative two-way interaction			133 [97.08]			133 [97.08]
Holistic approach	Physically			136 [99.27]			137 [100]
	Emotionally	136 [99.27]			136 [99.27]		
	Spiritually	124 [90.51]			125 [91.24]		
	Socially	137 [100]			137 [100]		
Dignity	Introduce themselves			137 [100]			137 [100]
	Ensured privacy				3[2.2]	2[1.5]	132[96.3]
Shared understanding/decision making	Identified reason for visit			137[100]			137[100]
	Identified problem	56[40.9]		81[59.1]	57[41.6]		80[58.4]
	Agreed on planned outcome	122[89.0]		15[11.0]	122[89.0]		15[11.0]
	Clarified responsibilities/actions in order to reach outcome	122[89.0]		15[11.0]	122[89.0]		15[11.0]
Characteristics	Trust			137[100]			137[100]
	Empathy	133[97.0]		4[3.0]	133[97.0]		4[3.0]
	Verification of meaning	137[100]			137[100]		
	Emotional support			137[100]			137[100]
2.2 Sensitivity/Respect	Labelling of gender observed	131[95.6]		6[4.4]	131[95.6]		4[4.4]

**TABLE 5.2: Observational Checklist Part 2: Antecedents and elements (to be continued)**

ANTECEDENT	ELEMENTS	PATIENTS			NURSES		
		ELEMENT NOT OBSERVED =f and %	ELEMENT OBSERVER BUT NOT CONSISTENTLY =f and %	ELEMENT CONSISTENTLY OBSERVED =f and %	ELEMENT NOT OBSERVED =f and %	ELEMENT OBSERVER BUT NOT CONSISTENTLY =f and %	ELEMENT CONSISTENTLY OBSERVED =f and %
Language/linguistic difficulties	Clarified terminology used	111[81.0]		26[19.0]	111[81.0]		26[19.0]
Culture/beliefs	Sensitivity regarding health beliefs	100[73.0]		37[27.0]	100[73.0]		37[27.0]
Sensitivity towards health knowledge	Recognised existing health knowledge	18[13.0]		119[87.0]	13[13.0]		119[87.0]
	Validated understanding of health knowledge	125[91.0]		12[9.5]	124[90.5]		13[9.5]
Health literacy	Sensitive towards patient's ability to read health information	120[88.0]		17[12.0]	120[88.0]		17[12.0]
	Sensitive towards patient's ability to understand health information	39[28.5]		98[71.5]	39[28.5]		98[71.5]
Technology	Sensitive towards electronic devices used by patients	133[97.0]		4[3.0]	132[96.0]		5[4.0]
Political-legal context	Consultation held within legal framework	72[53.0]	2[1.0]	63[46.0]	71[52.0]	2[1.0]	64[47.0]
Ethical issues	Requested whether sensitive information could be discussed	124[91.0]		13[9.0]	124[91.0]		13[9.0]

**TABLE 5.2: Observational Checklist Part 2: Antecedents and elements**

ANTECEDENT	ELEMENTS	PATIENTS			NURSES		
		ELEMENT NOT OBSERVED =f and %	ELEMENT OBSERVER BUT NOT CONSISTENTLY =f and %	ELEMENT CONSISTENTLY OBSERVED =f and %	ELEMENT NOT OBSERVED =f and %	ELEMENT OBSERVER BUT NOT CONSISTENTLY =f and %	ELEMENT CONSISTENTLY OBSERVED =f and %
Socio-economic influences	Sensitive towards socio-economic influences towards treatment	44[32.0]	1[1.0]	92[67.0]	44[32.0]	1[1.0]	92[67.0]
	Evaluation of previous strategies used to reach identified goal	53[39.0]		84[61.0]	53[39.0]		84[61.0]

**TABLE 5.3: Observational Checklist Part 3: Empirical referents**

DESCRIPTION	PATIENTS		NURSES	
	YES =f and %	NO =f and %	YES =f and %	NO =f and %
Experienced a sense of shared responsibility	136 [97.81]	1[0.73]	135 [98.54]	2[1.46]
Benefitted from consultation	137[100]		135 [98.54]	2[1.46]
Circumstances considered	134[97.81]	3[2.18]	131[95.62]	6[4.37]

## 5.4 SUMMARY OF RESULTS

In the majority of consultations, both patients and nurses spoke Sesotho. The fact that a language barrier was not an issue could have been the reason why validation of patients' understanding of health knowledge was not observed. Nurses' level of training was much higher than that of patients'. Therefore, nurses should be sensitive towards patients' ability to understand health knowledge. With regard to diabetes related training, nurses and patients indicated that they have not received any training, information, or communication in the previous 12 months.

Although different elements, almost the same number were either not observed or consistently observed for both patients' and nurses. The ideal situation would be the consistent observation of all elements. Important elements that were not observed include an agreement between patients and nurses on a planned outcome for patients, clarification of responsibilities, a sensitivity towards health knowledge, sensitivity towards the electronic devices used by patients to support health outcomes, and, in more than fifty percent of the observations, the lack of evaluation of strategies used to reach identified goals.

The majority of patients and nurses agreed that they experienced a sense of shared responsibility, and that they benefitted from the consultation. Patients supported nurses' feedback that their circumstances were considered. However, this positive stance seems to be contradictory to the results of the observations related to antecedents and elements that were made. Several important elements were not observed to be present during consultation (Refer to Table 5.2).



## 5.5 RECOMMENDATIONS

To ensure that health dialogue elements are used and, in future, maintained during health communication, recommendations are that:

- 5.5.1 Future research focuses on the refinement of the observational checklist and the supportive guideline. The identification of crucial elements to be observed or addressed during consultations should be investigated.
- 5.5.2 The researcher disseminates results to selected stakeholders, and that the Free State Department of Health and Thabo Mofutsanyana District Health is informed about the availability of the observational checklist and supportive guideline. The fact that the observational checklist is both a training and assessment instrument should be stressed.
- 5.5.3 The healthcare professionals at the clinics to be trained on health communication skills
- 5.5.4 The researcher initiates training sessions in selected clinics or healthcare facilities and introduces healthcare providers to the use of the observational checklist and supportive guideline. Monitoring the use of health dialogue elements during consultations should be part of a quality assurance strategy.
- 5.5.5 Trained nursing staff pilot the use of the observational checklist and supportive guideline in their facilities.
- 5.5.6 The Free State Department of Health and Thabo Mofutsanyana District health should:
  - Investigate why nurses and patients indicated that training, information, or communication on diabetes related issues are lacking.
  - Formulate strategies, such as in-service training and workshops, to update nurses regularly on new developments related to the management of diabetes. An action plan for in-service training on diabetes is proposed.

5.5.7 Clinics and/or healthcare facilities should schedule sessions for both patients and nurses on how to use technology to access and/or distribute health information.

## **5.6 GAPS REMAINING**

The fact that there is discrepancy between patients' and nurses' views on shared responsibility and decision-making, and the fact that several elements were not observed during consultations, should be investigated.

## **5.7 PROPOSED RESEARCH**

The following research is proposed:

5.7.1 Refinement of the observational checklist and supporting guideline.

5.7.2 Investigation into the relationship between the duration of a consultation, elements observed during that time, and respondents' views on shared responsibility.

5.7.3 Identification of elements that could be considered crucial when consultation time is limited.

## **5.8 CONCLUSION**

The researcher was able to complete the study as described in the methodology. It was found that health dialogue is needed to share health information with diabetic patients. The researcher also found that nurse-patient participation encourages patients to be actively involved in the management of their condition.

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# ***ANNEXURE A***

## ***Letter of Ethic Committee***

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26 February 2016

MRS DJK MOSIA  
C/O DR M REID  
SCHOOL OF NURSING  
IDALIA LOOTS BUILDING  
UFS

Dear Ms Mosia

HSREC 23/2016

**PROJECT TITLE: HEALTH DIALOGUE ELEMENTS IDENTIFIED DURING HEALTH COMMUNICATION BETWEEN NURSES AND PATIENTS WITH DIABETES IN THE MALUTI-A-PHOFUNG MUNICIPALITY**

1. You are hereby kindly informed that the Health Sciences Research Ethics Committee (HSREC) reviewed the above research project and it was presented at the meeting on 23 February 2016. Research may not be conducted before the following condition(s) has/have been met and the HSREC grants final approval for the project:

2.1 *The signed permission letter from the Free State Department of Health must be submitted before final approval will be granted.*

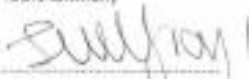
2. **PLEASE NOTE:** This ethics letter must accompany your application for approval to the Department of Health for their consideration, along with submitting the online application.

*\*Upon receipt of the above document(s), the HSREC will issue a final approval letter. Only thereafter may the study be conducted.*

*\*\*Dr Reid recused herself from the meeting for the duration of this discussion and decision.*

3. The Committee must be informed of any serious adverse event and/or termination of the study.
4. Any amendment, extension or other modifications to the protocol must be submitted to the HSREC for approval.
5. Kindly use the **HSREC NR** as reference in correspondence to HSREC Administration.
6. Thus, this letter only serves as **conditional** approval.
7. The HSREC functions in compliance with, but not limited to, the following documents and guidelines: The SA National Health Act, No. 61 of 2003; Ethics in Health Research: Principles, Structures and Processes (2015); SA GCP(2006); Declaration of Helsinki; The Belmont Report; The US Office of Human Research Protections 45 CFR 461 (for non-exempt research with human participants conducted or supported by the US Department of Health and Human Services - (HHS), 21 CFR 31.50, 21 CFR 31.56; CIOMS; ICH-GCP-E6 Sections 1-4; The International Conference on Harmonization and Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH Tripartite), Guidelines of the SA Medicines Control Council as well as Laws and Regulations with regard to the Control of Medicines, Constitution of the Ethics Committee of the Faculty of Health Sciences.

Yours faithfully



DR SM LE GRANGE

CHAIR: HEALTH SCIENCES RESEARCH ETHICS COMMITTEE

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## ***ANNEXURE B***

### ***Letter of Department of Health Free State Province***



health

Department of  
Health  
FREE STATE PROVINCE

13 June 2016

Mrs. DJK Mosia  
C/O Dr M Reid  
School Of Nursing  
Maitla Loos Building  
UFS

Dear Mrs. DJK Mosia

Subject: Health dialogue elements identified during health communication between nurses and patients with diabetes in the Maluti-A-Phofung Municipality.

- Permission is hereby granted for the above – mentioned research on the following conditions:
- Participation in the study must be voluntary.
- A written consent by each participants must be obtained
- Serious adverse events to be reported and/or termination of the study.
- Ascertain that your data collection exercise neither interferes with the day to day running of Phuthaditjhaba Clinic nor the performance of duties by the respondents or health care workers.
- Confidentiality of information will be ensured and no names will be used.
- Research results and a complete report should be made available to the Free State Department of Health on completion of the study (a hard copy plus a soft copy).
- Progress report must be presented not later than one year after approval of the project to the Ethics Committee of the University of the Free State and to Free State Department of Health.
- Any amendments, extension or other modifications to the protocol or investigators must be submitted to the Ethics Committee of the University of the Free State and to Free State Department of Health.
- Conditions stated in your Ethical Approval letter should be adhered to and a final copy of the Ethics Clearance Certificate should be submitted to [ethics@fsh.health.gov.za](mailto:ethics@fsh.health.gov.za) or [ethics@fsh.health.gov.za](mailto:ethics@fsh.health.gov.za) before you commence with the study
- No financial liability will be placed on the Free State Department of Health
- Please discuss your study with the institution managers/CEOs on commencement for logistical arrangements
- Department of Health to be fully indemnified from any harm that participants and staff experiences in the study
- Researchers will be required to enter in to a formal agreement with the Free State department of health regulating and formalizing the research relationship (document will follow)
- You are encouraged to present your study findings/results at the Free State Provincial health research day
- Future research will only be granted permission if correct procedures are followed see <http://nhrl.hva.org.za>

Trust you find the above in order.

Kind regards

Dr D Motau

HEAD: HEALTH

Date: 15/06/16

Head - Health  
PO Box 227, Bloemfontein, 9300  
4<sup>th</sup> Floor, Executive Suite, Gophelo House, off Maitland and Hurway Road, Bloemfontein  
Tel: (051) 408 1527 Fax: (051) 408 1556 e-mail: [patients@fsh.health.gov.za](mailto:patients@fsh.health.gov.za) / [fsh@fsh.health.gov.za](mailto:fsh@fsh.health.gov.za) / [ethics@fsh.health.gov.za](mailto:ethics@fsh.health.gov.za)

[www.fs.gov.za](http://www.fs.gov.za)

## **ANNEXURE C**

# ***Permission to conduct the research from the Head Free State Department of Health***

---

Eastern Campus Free State School of Nursing  
Private Bag X833  
Witsieshoek

The Head  
Free State Department of Health  
BLOEMFONTEIN  
9300

Dear Sir

**RE: PERMISSION TO CONDUCT A STUDY AS PART OF A MASTER'S DEGREE  
(NURSING) UNIVERSITY OF THE FREE STATE**

**TITLE: HEALTH DIALOGUE ELEMENTS IDENTIFIED DURING HEALTH  
COMMUNICATION BETWEEN NURSES AND PATIENTS WITH DIABETES IN  
THE THABO MOFUTSANYANA DISTRICT (MALUTI-A-PHOFUNG  
MUNICIPALITY)**

I am a lecturer at the Eastern Campus Free State School of Nursing, and am presently studying for Master's degree (Nursing) at the University of Free State in Bloemfontein. I hereby request permission to conduct the research as stated above.

**The research will be conducted at all fixed Primary Healthcare Clinics (PHCs) and Community Health Care centres, and will involve the following people:**

- Nurses (professional/ staff) working at the Primary Healthcare clinics in Maluti-A-Phofung Municipality



- Diabetes patients attending primary health care clinics for their follow up care in Maluti-A-Phofung Municipality. The number of patients per clinic will depend on the capacity of patients per institution.

The participants will be engaged for approximately 30 minutes in the study. The research will be done under the supervision of experts in the Faculty of Health Sciences Department at the University of Free State (Bloemfontein Campus).

**The objective of the study is as follows:**

To describe the extent to which health dialogue elements are identified during health communication between the nurses and the diabetic patients in the Maluti-A-Phofung Municipality, Thabo Mofutsanyana District.

The research results will be presented on academic and other platforms including conferences and workshops, and published in accredited peer reviewed journals in the form of articles.

Attached please find the research proposal that has been approved by the Health Sciences Research Ethics Committee (UFS).

I Hope my application will reach your favourable consideration and the response at your earliest convenience will be appreciated. Contact details: Mobile number: 0832265419, Office number: (058)7183249, Home number: (058)7130694.

Yours truly

**D K J MOSIA**

# ***ANNEXURE D***

## ***Information sheet for nurses***

# INFORMATION SHEET FOR NURSES

## **TITLE OF RESEARCH: HEALTH DIALOGUE ELEMENTS IDENTIFIED DURING HEALTH COMMUNICATION BETWEEN NURSES AND PATIENTS WITH DIABETES IN THE MALUTI-A-PHOFUNG MUNICIPALITY**

I am Dineo Kuki Joyce Mosia. I am doing research on health dialogue elements identified during health communication between nurses and patients with diabetes mellitus in the Maluti-A-Phofung municipality.

### - *Purpose of the study*

The purpose of the study is to describe the health dialogue elements identified during health communication between nurses and patients with diabetes mellitus in the Maluti-A-Phofung municipality.

### - *Invitation*

I would like to invite you to participate in the above mentioned.

### - *What is involved in the study*

The researcher will gather individual information from the nurse and patient on questions addressing the demographic data before the beginning of a health communication session.

The researcher will observe the interview between the nurse and the patient and use an observation checklist in order to determine the extent of health dialogue during health communication between you and your patient.

The researcher will record the interview between the nurse and the patient using the tape recorder. On completion of a health communication session, the researcher will gather individual and private feedback from the nurse and the patient on questions

addressing their experience on shared responsibility and decision making during the consultation (refer Annexure F).

- *Benefits related to the study*

There will be no immediate benefits for either nurses involved in health communication with patients diagnosed with diabetes mellitus or the patients themselves. However, recommendations by the researcher regarding the use of health dialogue elements during health communication between nurses and patients, could be used to address identified problems.

- *Risks involved*

There are no known risks involved in the study. No personal details will appear on any documentation and the data obtained during the observation will be treated as confidential. However, it should be noted that the results of the study will be disseminated in accredited journals, through presentations and/or workshops.

Your participation in the study is voluntary. You may withdraw from the study at any given time. If you decide to withdraw from the study you will not be penalised or lose benefits. As a respondent, you will not be expected to pay anything in order to participate in the study and you will also not be paid for your participation in the research. Furthermore, you will be given appropriate information regarding the study while involved in the research and the results will be available in case you have any queries.

**Forward any complaints to the Research Ethics Committee Secretariat and Chair, ☎(0)51 401 7795/7794 or e-mail: [ethicsfhs@ufs.ac.za](mailto:ethicsfhs@ufs.ac.za).**

**For further information about the research please contact the researcher at ☎ 083 2265419**

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**DINEO KUKI JOYCE MOSIA**

## ***ANNEXURE E***

### ***Consent to participate in research: Nurse***

## CONSENT TO PARTICIPATE IN RESEARCH: NURSE

I have been asked to participate in a research study titled: Health dialogue elements identified during health communication between nurses and patients with diabetes in the Maluti-A-Phofung municipality.

I understand that the knowledge gained from this study might help me and other professional nurses in engaging in health communication with diabetes patients who are taking treatment at the Primary Healthcare Clinics (PHCs) in the Free State, South Africa. I also understand that the researcher will gather individual information from the nurse and patient privately on questions addressing the demographic data before the beginning of a health communication session, and on completion of a health communication session, the researcher will gather individual and private feedback from the nurse and the patient on questions addressing their experience on shared responsibility and decision making during the consultation (refer Annexure H).

I have been informed about the study by .....

My participation in this research is voluntary, and I will not be penalised or lose benefits if I refuse to participate or decide to terminate participation. I understand that if I agree to participate, I will be given the participant information sheet, which is a written summary of the research. The researcher made me understand that I will not receive remuneration for participating in this study and I am not expected to pay anything for participating in the research.

The research study, and the above mentioned information has been explained to me verbally. I understand what my involvement in the study means and I voluntarily agree to participate. I have received the Information sheet and understand the content.

---

**SIGNATURE OF RESPONDENT**

---

**DATE**

# **ANNEXURE F**

## ***Information sheet to patients***

# INFORMATION SHEET FOR PATIENTS

## **TITLE OF RESEARCH: HEALTH DIALOGUE ELEMENTS IDENTIFIED DURING HEALTH COMMUNICATION BETWEEN NURSES AND PATIENTS WITH DIABETES IN THE MALUTI-A-PHOFUNG MUNICIPALITY**

I am Dineo Kuki Joyce Mosia. I am doing research on health dialogue elements identified during health communication between nurses and patients with diabetes mellitus in the Maluti-A-Phofung municipality.

### - *Purpose of the study*

The purpose of the study is to describe the health dialogue elements identified during health communication between nurses and patients with diabetes mellitus in the Maluti-A-Phofung municipality.

### - *Invitation*

I would like to invite you to participate in the above mentioned.

### - *What is involved in the study*

The researcher will gather individual information from the nurse and patient privately on questions addressing the demographic data before the beginning of a health communication session.

The researcher will observe the interview between the nurse and the patient and use an observation checklist in order to determine the extent of health dialogue during health communication between you and your patient.

The researcher will record the interview between the nurse and the patient using the tape recorder.



On completion of a health communication session, the researcher will gather individual and private feedback from the nurse and the patient on questions addressing their experience on shared responsibility and decision making during the consultation (refer Annexure H).

- *Benefits related to the study*

There will be no immediate benefits for either nurses involved in health communication with patients diagnosed with diabetes mellitus or the patients themselves. However, recommendations by the researcher regarding the use of health dialogue elements during health communication between nurses and patients, could be used to address identified problems.

- *Risks involved*

There are no known risks involved in the study. No personal data will appear on any documentation and the data obtained during the observation will be treated as confidential. However, it should be noted that the results of the study will be disseminated in accredited journals, through presentations and/or workshops.

Your participation in the study is voluntary. You may withdraw from the study at any given time. If you decide to withdraw from the study you will not be penalised or lose benefits. As a respondent, you will not be expected to pay anything in order to participate in the study and you will also not be paid for your participation in the research. Furthermore, you will be given appropriate information regarding the study while involved in the research and the results will be available in case you have any queries.

**Forward any complaints to the Research Ethics Committee Secretariat and Chair, ☎(0)51 401 7795/7794 or e-mail: [ethicsfhs@ufs.ac.za](mailto:ethicsfhs@ufs.ac.za).**

**For further information about the research please contact the researcher at ☎  
083 2265419**

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**DINEO KUKI JOYCE MOSIA**

# **TOKOMANE YA TLHAHISO LESEDING YA BAKUDI**

## **SEHLOHO SA DIPHUPUTSO**

**DINTHLA TSE HLWAUWANG DIPUISANONG PAKENG TSA BAOKI LE BAKUDI BA NANG LE LEFU LA TSWEKERE DITSHENG TSA BOPHELO BO BOTTLE (DITLINIKING) MASEPALENG WA MALUTI-A-PHOFUNG.**

Lebitso laka ke Dineo Kuki Joyce Mosia, ke etsa diphuputso ka dintlha tse hlwauwang dipuisanong pakeng tsa baoki le bakudi ba nang le lefu la tswekere ditsheng tsa bophelo bo bottle (ditliniking) masepaleng wa maluti-a-phofung.

- *Sepheo sa diphuputso*

Sepheo sa diphuputso ke ho hlalosa dintlha tse hlwauwang dipuisanong pakeng tsa baoki le bakudi ba nang le lefu la tswekere ditsheng tsa bophelo bo bottle (ditliniking) masepaleng wa maluti-a-phofung.

- *Memo*

O kupuwa ke hona ho nka karolo diphuputsong tsena.

- *Ke difeng dintho tse kenyeleditsweng diphuputsong tsena*

Mofuputsi o tla botsa mooki le mokudi ka bonngwe, sephiring dipotso tse mabapi le bong, dilemo, puo e sebediswang lapeng, thuto, le thuto ka lefu la tswekere le tse ding, pele ho qala dipuisano pakeng the mooki le mokudi

Mofuputsi o tla sebedisa dipampiri tse nang le dipotso tse tlo araba seo a tlabeng a se shebile ha a hlwaya dintlha dipuisanong pakeng tsa mooki le mokudi ya nang le lefu la tswekere.

Mofuputsi o tla kopa ho hatisa puisano pakeng tsa mokudi ya nang le lefu la tswekere le mooki eo a tlabeng a buisana le yena.

Ha puisano e fedile pakeng tsa mooki le mokudi, mofuputsi o tla boela a botsa dipotso ho mooki le mokudi ka sephiring, tse mabapi le maikutlo a bona ka ho arolelana maikarabelo le qeto eo bobedi bo inkileng pele ba felelletsa dipuisano.

- *Molemo wa diphuputso*

Molemo ha o tlo bonahala kapelepele kamora diphuputso ho baoki ba nkileng karolo dipuisanong le bakudi ba nang le lefu la tswekere ha ho ne ho etsuwa diphuputso. Mofuputsi o tla etsa ditlhaiso mabapi le kamoo dintlha tse hlwauwang dipuisanong pakeng tsa baoki le bakudi ba nang le lefu la tswekere di sebediswang kateng ho rarolla mathata.

- *Kotsi e kenyeleditsweng*

**Ha ho kotsi e kenyeleditsweng diphuputsong.** Ha ho motho ya tlang ho o tseba le ditshitsinyo/tlhaliso tsa hao, ka ha e tla ba sephiri, le hoja ditaba tsena di kanna tsa sebediswa diphatlalatsong tsa Baooki.

Ho nka karolo dipatlisising tsena ke boinyehelo feela, ha ho motho ya qobeletsweng. Motho ka mong o nale tokelo ya ho ka itokolla dipatlisising tsena neng kapa neng le ha a se a qetile diputsisiso. Ha eba o e tsa qeto ya ho itokolla diphuputsong tsena ha ho kahlolo kapa tahlehelo e tlabang teng kgahlano le wena. Jwale motho ya nkang karolo dipatlisising tsena ha a lebellwa ho lefa letho ebile a keke a lefuwa letho bakeng sa ho nka karolo.

Jwale ka motho ya nkileng karolo o tla newa dintlha tse nepahetseng ka dipatlisiso tsena ha ontse o le karolo ya dipatlisiso mme sepheto sa dipatlisiso se tla ba teng bakeng sa ho se fumana.

O ka lebisa ditlalelebo kantorong ena e latelang: **Research Ethics Committee Secretariat and Chair,(0)51 4017795/7794 kapa e-mail:ethics@ufs.ac.za**

Diputso tsohle di ka lebiswa ho Mofuputsi dinomorong tsa mohala tse latelang:  
0832265419

---

**Dineo Kuki Joyce Mosia**

# INLIGTING BLAD VIR PASIËNTE

## TITEL VAN ONDERSOEK

**GESONDHEID DIALOG ELEMENTE WORD GEIDENTIFISEER GEDURENDE GESONDHEID KOMMUNIKASIE TUSSEN VERPLEEGSTER EN PASIËNTE IN MALUTI-A-PHOFUNG MUNISOPALITEIT.**

Ek Dineo Kuki Joyce Mosia doen ek die ondersoek op gesondheid dialog elemente identifiseer gedurende die gesondheid kommunikasie tussen die verpleegster en die pasiënte.

### - *Doel van die studie*

Die doel van die studie is om die gesondheid kommunikasie tussen die pasiënte en die verpleegster te beskryf.

### - *Uitnoodiging*

Ek wil u nooi na die bogenoemde deel te neem.

### - *Wat is in die studie*

Die ondersoeker sal elkeen (verpleegster en pasiënt) vrae wat demografiese inligting vra voor die begin van gesondheid kommunikasie. Die ondersoeker wil die onderhoud tussen die verpleegster en die pasiënte bemark en die bemarkingskontrollys gebruik om die uitgestrektheid van gesondheid dialoog kommunikasie tussen die verpleegster en jou pasiënt.

Aan die einde van gesondheid kommunikasie sessie, die ondersoeker sal elk een en privaat terug veering he van die verpleegster en pasiënt van vrae wat ondervinding an verdeel verantwoordelike en besluiting maaksel tussen die konsultasie.

- *Voordeel verwant na die studie*

Daar sal geen voordeel vir albei die verpleegster in gesondheid kommunikasie met pasiënte met suikersiek (mellitus) of pasiënte hulleself betroke nie. Aanbeveling van die ondersoeker aan die gebruik van gesondheid dialoog element gedurende die gesondheid kommunikasie tussen pasiënte en die verpleegster kan gebruik word om die probleem te adreseer.

- *Gevaar inwikelling*

Daar is geen gevaar inwikelling in dié studie nie. Jy sal naamloos bly en dié wat gekry word gedurende die opmerking sal vertroulik wees. Jou deelneming in dié studie is vrywillig. Jy kan enige tyd by die studie terugtrek as jy van die studie wil terugtrek. As jy van die studie wil terugtrek, sal jy nie gepanaliseer nie of jou voordeel los nie. Jy sal niks betaal daarvoor. Jy sal die betroke inligting gegee word in verband van die studie. Die uitslae sal beskikbaar wees as jy die navrae wil doen.

Bevorder jou klagte aan die Ondersoeker Ethics Komitee Sekretaris en Voorsitter (0)51 4017795/7794 epos: [ethicsfhs@ufs.ac.za](mailto:ethicsfhs@ufs.ac.za).

Vir meer ligting oor die ondersoek kontak asseblief die ondersoeker aan: 0832265419

---

**Dineo Kuki Joyce Mosia**

## ***ANNEXURE G***

### ***Consent to participate in research: Patient***



## **CONSENT TO PARTICIPATE IN RESEARCH: PATIENTS**

I have been asked to participate in a research study titled: Health dialogue elements identified during health communication between nurses and patients with diabetes in the Maluti-A-Phofung municipality.

I understand that the knowledge gained from this study might help me and other patients to engaging in health communication with nurse who provides healthcare to diabetes mellitus patients at Primary Healthcare Clinics (PHCs) in the Free State, South Africa. I also understand that the researcher will gather individual information from the nurse and patient privately on questions addressing the demographic data before the beginning of a health communication session, and on completion of a health communication session, the researcher will gather individual and private feedback from the nurse and the patient on questions addressing their experience on shared responsibility and decision making during the consultation (refer Annexure).

I have been informed about the study by .....

My participation in this research is voluntary, and I will not be penalised or lose benefits if I refuse to participate or decide to terminate participation. I understand that if I agree to participate, I will be given the participant information sheet, which is a written summary of the research. The researcher made me understand that I will not receive remuneration for participating in this study and I am not expected to pay anything for participating in the research.

The research study, and the above mentioned information has been explained to me verbally. I understand what my involvement in the study means and I voluntarily agree to participate. I have received the Information sheet and understand the content.

---

**SIGNATURE OF RESPONDENT**

---

**DATE**

# KANANELO YA HO NKA KAROLO HO DIPHUPHUTSO: MOKUDI

**Ke kupuwe ke hona ho nka karolo diphuphutsong tsa sehloho se latelang: DINTHLA TSE HLWAUWANG DIPUISANONG PAKENG TSA BAOKI LE BAKUDI BA NANG LE LEFU LA TSWEKERE DITSHENG TSA BOPHELO BO BOTLE (DITLINIKING) MASEPALENG WA MALUTI-A-PHOFUNG.**

Ke utlwisisa ke hona hore tsebo e tlang ho fumanwa diphuphutsong tsena e tla thusa nna mmoho le bakudi ba bang ba nang le lefu la tswekere ho nka karolo dipuisanong ka tsa bophelo bo botle le Baooki ba sebetsang ka batho ba nang le lefu la tswekere ditliniking tsa bophelo bo botle Foreisitata, South Africa. Ke utlwisisa hape hore mofuputsi o tla botsa mooki le mokudi ka bonngwe, sephiring dipotso tse mabapi le bong, dilemo,puwo e sebediswang lapeng,thuto, le thuto ka lefu la tswekere le tse ding, pele ho qala dipuisano pakeng the mooki le mokudi. Mofuputsi o mpoelletse hape hore ha puisano e fedile pakeng tsa mooki le mokudi o tla boela a botsa dipotso ho mooki le mokudi ka sephiring, tse mabapi le maikutlo a bona ka ho arolelana maikarabelo le qeto eo bobedi bo inkileng pele ba felelletsa dipuisano.nong.

Ke tsebisitswe le hona ho hlakisetswa ka diphuputso tsena ke .....

Ho nka karolo diphuputsong tsena ke ithaopa, hape ke utlwisisa/ananela hore ke tlanne ke tshwarwe jwalo ka tlwaelo ke tsela e tlwaelehileng ha ho ka etsahala ke etse qeto ya ho itokolla diphuputsong tsena. Ke ya utlwisisa hore ha ke dumela ho nka karolo, ke tla fumantshwa tokomane e mphang dintlha ka diphuputso eleng e ngotsweng ka bokgutshwanyane ka diphuputso. Mofuputsi o hlalositse tsohle hore ke utlwisise ha ho letho leo ke tlang ho le fumana kapa ho lefuwa ka ho nka karolo, ebile ha ke ya lebellwa ho lefa letho.

Dintlha tsohle tse mabapi le diphuputso mmoho le tse ngotsweng ka hodimo lengolong lena ke di hlalositse ka molomo. Ke ya utlwisisa hore ho nka karolo diphuputsong tsena ho bolela eng, mme ke ithaopa ho nka karolo. Ke fumantsitswe tokomane ya dintlha mme ke utlwisisa se ngodilweng ho yona.

---

**TEKENO YA MONGKAKAROLO**

---

**LETSATSI**

# **TOESTEMING OM BY ONDERSOEK DEEL TE NEEM.**

## **PASIËNTE**

Hiermee word ek gevra om in die ondersoek studie deel te neem, naamlik: Gesondheid dialoog elemente identifiseer gedurende gesondheid kommunikasie tussen verpleegster en pasiënte met suikersiek (mellitus) in Maluti-A-Phofung munisipaliteit.

Ek dink dat die inligting wat ek gaan kry gaan my help in gesondheid kommunikasie saam met die verpleegsters wat gesondheidsorg gee aan die suikersiek mellitus pasiënte in die primêre gesondheidsorg kliniek in die Vrystaat (Siud Afrika). Ek verstaan dat die ondersoeker sal elkeen (verpleegster en pasiënt) vrae wat demografieke inligting vra voor die begin van gesondheid kommunikasie. Ek verstaan weer dat aan die einde van gesondheid kommunikasie sessie, die ondersoeker sal elk een en privaat terug veering he van die verpleegster en pasiënt van vrae wat ondervinding an verdeel verantwoordelighed en besluiting maaksel tussen die konsaltasie.

Ek is gesê van die studie deur -----

My deelneeming is dié ondersoek vrywillig. Ek sal nie gepanaliseer word nie as ek nie meer deel neem nie. Ek verstaan dat as ek deel neem ek sal kans kry om die inligting van die opsomming kry. Die ondersoeker maak my verstaan dat ek k sal nie die belonging kry nie om in die studie deel te neem nie.

Die ondersoek studie en die bogenoemde inligting het mondeling verduideliking. Ek verstaan wat my betrokkenheid in die studie is en ek neem deel vrywillig. Ek het die inligting blad onvang en ek verstaan al die inhoud.

---

**HANDTEKENING VAN RESPONDENT**

---

**DATUM**

## ***ANNEXURE H***

### ***Observation checklist of health dialogue elements***

## OBSERVATION CHECKLIST OF HEALTH DIALOGUE ELEMENTS

**Checklist number**

--	--

## Diabetes

*Only observe patients who:*

- ☐ have signed the consent form
- ☐ are older than 18 years
- ☐ have been diagnosed with diabetes, returning for follow-up

*Only observe nurses who:*

- ☐ have signed the consent form
- ☐ are in consultation with a diabetic patient
- ☐ are employed in identified facility

**Instructions – indicate the appropriate answer (☒), or write your answer in the space provided.**

- 1. Name of facility**

---

- 2. Type of diabetes with which patient has been diagnosed:**

- ☐ Type I                      ☐ Type II  
☐ Other

- ### 3. Language in which interview was conducted

- ☐ Afrikaans      ☐ English      ☐ Sotho      ☐ Tswana  
☐ Other. Please specify \_\_\_\_\_

4. **Date questionnaire is completed** ...../...../..... (dd / mm / yyy)

**Field notes:**

[illegible]

## PART 1: NURSE AND PATIENT PROFILE

### Demographic information

Nurse		Patient	
5.	<b>Note Gender</b> <input type="checkbox"/> Male <input type="checkbox"/> Female	5.	<b>Note Gender</b> <input type="checkbox"/> Male <input type="checkbox"/> Female
6.	<b>How old are you in years</b> ..... years	6.	<b>How old are you in years</b> ..... years
7.	<b>What is your home language?</b> Please specify _____	7.	<b>What is your home language?</b> Please specify _____
8.	<b>What is your highest level of education?</b> <input type="checkbox"/> Certificate <input type="checkbox"/> Diploma <input type="checkbox"/> Degree	8.	<b>What is your highest level of education?</b> <input type="checkbox"/> No schooling <input type="checkbox"/> Some primary schooling <input type="checkbox"/> Completed primary school <input type="checkbox"/> Some secondary school <input type="checkbox"/> Completed secondary school <input type="checkbox"/> Diploma <input type="checkbox"/> Degree
9.	<b>Have you received any diabetes-related training in your professional capacity during the past 12 months?</b> If Yes, state content covered _____ _____ _____	9.	<b>Have you been told anything about diabetes in the last 12 months?</b> If Yes, state content covered _____ _____ _____
10.	<b>Have you received any communication/talk to others in the last 12 months?</b> If Yes, state content told _____ _____ _____	10.	<b>Have you received any communication/talk to others in the last 12 months?</b> If Yes, state content told _____ _____ _____
11.	<b>How long have you been consulting diabetic patients in your professional capacity?</b> ..... Years	11.	<b>How long since you have been diagnosed with diabetes?</b> ..... Years
12.	<b>Time interview started:</b> <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="border: 1px solid black; padding: 2px 5px; margin: 0 2px;">H</div> <div style="border: 1px solid black; padding: 2px 5px; margin: 0 2px;">H</div> <span style="margin: 0 5px;">:</span> <div style="border: 1px solid black; padding: 2px 5px; margin: 0 2px;">M</div> <div style="border: 1px solid black; padding: 2px 5px; margin: 0 2px;">M</div> </div>		

**Note: Start recording interview**

**To complete Part 2–3 on empirical antecedents, the nurse and patient should be observed simultaneously. Use the following scale when rating elements**

1	None of the specified elements observed, implying either not applicable or required
2	Element observed, but not consistently displayed/responded to
3	Element consistently displayed/responded to

**OR**

Yes/No when indicated

## PART 2: ANTECEDENTS

### PART 2.1: POSITIVE ATTITUDE

During diabetes related health dialogue, the following elements have been observed/ responded to:

Nurse	Patient
<b>Collaborative interaction</b>	
<b>13. Collaborative two-way interaction</b> <div>1 2 3</div>	<b>13. Collaborative two-way interaction</b> <div>1 2 3</div>
<b>Holistic approach</b>	
<b>Response to illness:</b> 14. Physically <div>1 2 3</div> 15. Emotionally <div>1 2 3</div> 16. Spiritually <div>1 2 3</div> 17. Socially <div>1 2 3</div>	<b>Response to illness:</b> Physically <div>1 2 3</div> Emotionally <div>1 2 3</div> Spiritually <div>1 2 3</div> Socially <div>1 2 3</div>
<b>Dignity</b>	
<b>18. Introduced themselves in a friendly manner</b> <input type="checkbox"/> ...Yes <input type="checkbox"/> ...No <b>19. Ensured privacy throughout</b> <div>1 2 3</div>	<b>Introduced themselves in a friendly manner</b> <input type="checkbox"/> ...Yes <input type="checkbox"/> ...No
<b>Shared understanding/decision making</b>	
<b>20a. Identified reason for visit:</b> <input type="checkbox"/> ...Yes <input type="checkbox"/> ...No <b>20b. Identified problem</b> <input type="checkbox"/> ...Yes <input type="checkbox"/> ...No <b>21. Agreed on planned outcome:</b> <div>1 2 3</div>	<b>Identified problem/reason for visit:</b> <input type="checkbox"/> ...Yes <input type="checkbox"/> ...No <b>Identified problem</b> <input type="checkbox"/> ...Yes <input type="checkbox"/> ...No <b>Agreed on planned outcome:</b> <div>1 2 3</div>

- |  |   |
|--|---|
| <b>22. Clarified responsibilities/actions in order to reach outcome:</b> | <b>Understand responsibilities/actions in order to reach outcome:</b> |
|--|---|

1	2	3
---	---	---

1	2	3
---	---	---

#### Characteristics of role players

- |     | Characteristic          |  |   |   |   |
|-----|-------------------------|--|---|---|---|
| 23. | Trust                   | <table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 33px; text-align: center;">1</td><td style="width: 33px; text-align: center;">2</td><td style="width: 33px; text-align: center;">3</td></tr></table> | 1 | 2 | 3 |
| 1   | 2                       | 3  |   |   |   |
| 24. | Empathy                 | <table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 33px; text-align: center;">1</td><td style="width: 33px; text-align: center;">2</td><td style="width: 33px; text-align: center;">3</td></tr></table> | 1 | 2 | 3 |
| 1   | 2                       | 3  |   |   |   |
| 25. | Verification of meaning | <table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 33px; text-align: center;">1</td><td style="width: 33px; text-align: center;">2</td><td style="width: 33px; text-align: center;">3</td></tr></table> | 1 | 2 | 3 |
| 1   | 2                       | 3  |   |   |   |
| 26. | Emotional support       | <table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 33px; text-align: center;">1</td><td style="width: 33px; text-align: center;">2</td><td style="width: 33px; text-align: center;">3</td></tr></table> | 1 | 2 | 3 |
| 1   | 2                       | 3  |   |   |   |

- |   | Characteristic                  |  |   |   |   |
|---|---------------------------------|--|---|---|---|
|   | Trust                           | <table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 33px; text-align: center;">1</td><td style="width: 33px; text-align: center;">2</td><td style="width: 33px; text-align: center;">3</td></tr></table> | 1 | 2 | 3 |
| 1 | 2                               | 3  |   |   |   |
|   | Responsive to empathy           | <table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 33px; text-align: center;">1</td><td style="width: 33px; text-align: center;">2</td><td style="width: 33px; text-align: center;">3</td></tr></table> | 1 | 2 | 3 |
| 1 | 2                               | 3  |   |   |   |
|   | Verification of meaning         | <table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 33px; text-align: center;">1</td><td style="width: 33px; text-align: center;">2</td><td style="width: 33px; text-align: center;">3</td></tr></table> | 1 | 2 | 3 |
| 1 | 2                               | 3  |   |   |   |
|   | Responsive to emotional support | <table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 33px; text-align: center;">1</td><td style="width: 33px; text-align: center;">2</td><td style="width: 33px; text-align: center;">3</td></tr></table> | 1 | 2 | 3 |
| 1 | 2                               | 3  |   |   |   |

## PART 2.2: SENSITIVITY/RESPECT

Nurse	Patient						
<b>Gender sensitivity</b>							
<b>27. Labelling of gender observed</b>  <input type="checkbox"/> ...Yes <input type="checkbox"/> ...No	<b>Labelling of gender observed</b>  <input type="checkbox"/> ...Yes <input type="checkbox"/> ...No						
<b>Language/linguistic difficulties</b>							
<b>28. Clarified terminology used</b>  <table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 33px; text-align: center;">1</td> <td style="width: 33px; text-align: center;">2</td> <td style="width: 33px; text-align: center;">3</td> </tr> </table>	1	2	3	<b>Showed understanding of terminology used</b>  <table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 33px; text-align: center;">1</td> <td style="width: 33px; text-align: center;">2</td> <td style="width: 33px; text-align: center;">3</td> </tr> </table>	1	2	3
1	2	3					
1	2	3					
<b>Culture/beliefs</b>							
<b>29. Sensitivity regarding health beliefs</b>  <table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 33px; text-align: center;">1</td> <td style="width: 33px; text-align: center;">2</td> <td style="width: 33px; text-align: center;">3</td> </tr> </table>	1	2	3	<b>Sensitivity regarding health beliefs</b>  <table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 33px; text-align: center;">1</td> <td style="width: 33px; text-align: center;">2</td> <td style="width: 33px; text-align: center;">3</td> </tr> </table>	1	2	3
1	2	3					
1	2	3					
<b>Sensitivity towards health knowledge</b>							
<b>30. Recognised existing health knowledge</b>  <input type="checkbox"/> ...Yes <input type="checkbox"/> ...No	<b>Respond to recognition of health knowledge</b>  <input type="checkbox"/> ...Yes <input type="checkbox"/> ...No						
<b>31. Validated understanding of health knowledge</b>  <table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 33px; text-align: center;">1</td> <td style="width: 33px; text-align: center;">2</td> <td style="width: 33px; text-align: center;">3</td> </tr> </table>	1	2	3	<b>Respond to validation of health knowledge</b>  <table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 33px; text-align: center;">1</td> <td style="width: 33px; text-align: center;">2</td> <td style="width: 33px; text-align: center;">3</td> </tr> </table>	1	2	3
1	2	3					
1	2	3					



<i>Health literacy</i>			
32.	<b>Sensitive towards patient's ability to read health information</b>		<b>Responded to sensitivity towards ability to read health information</b>
	<div>123</div>		<div>123</div>
33.	<b>Sensitive towards patient's ability to understand health information</b>		<b>Responded to sensitivity towards ability to understand health information</b>
	<div>123</div>		<div>123</div>
<i>Technology</i>			
34.	<b>Sensitive towards electronic devices used by patients</b>		<b>Responded to sensitivity towards devices used by patient</b>
	<div>123</div>		<div>123</div>
<i>Political-legal context</i>			
35.	<b>Consultation held within a legal framework</b>		<b>Showed respect for consultation within legal framework</b>
	<div>123</div>		<div>123</div>
<i>Ethical issues</i>			
36.	<b>Requested whether sensitive information could be discussed</b>		<b>Agreed that sensitive information could be discussed</b>
	<div>123</div>		<div>123</div>
<i>Socio-economic influences</i>			
37.	<b>Sensitive towards socio-economic influences on treatment</b>		<b>Responded to sensitivity towards socio-economic influences on treatment</b>
	<div>123</div>		<div>123</div>
38.	<b>Evaluation of previous strategies used to reach identified goal</b>		<b>Responded to evaluation of previous strategies used to reach identified goal</b>
	<div>123</div>		<div>123</div>

To complete Part 3, interview nurse and patient individually

## PART 3: EMPIRICAL REFERENTS

### PART 3.1: SHARED RESPONSIBILITY/DECISION-MAKING

Nurse	Patient
<p>39. Have you experienced a sense of shared responsibility during this consultation? Please motivate</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>Have you experienced a sense of shared responsibility during this consultation? Please motivate</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>_____</p> <p>_____</p> <p>_____</p>
<p>40. Did you benefit from this consultation? Please motivate</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>Did you benefit from this consultation? Please motivate</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>_____</p> <p>_____</p> <p>_____</p>
<p>41. Where you able to consider the patient's circumstances during the consultation? Please motivate</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>Did you experience that the nurse considered your circumstances during this consultation? Please motivate</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>_____</p> <p>_____</p> <p>_____</p>
<p>42. Time interview ended:</p> <p><input type="text" value="H"/><input type="text" value="H"/> : <input type="text" value="M"/><input type="text" value="M"/></p>	

# ***ANNEXURE I***

## ***Guidelines for completion of the observation checklist***

## **GUIDELINES FOR COMPLETION OF THE OBSERVATION CHECKLIST**

***Familiarize yourself with the content of this guideline prior to observation of consultation  
Only interview/observe patients and nurses who meet all the inclusion criteria, namely:***

### **Patients:**

- ☐ who have signed the consent form
- ☐ who are older than 18 years
- ☐ who have been diagnosed with diabetes, returning for follow up visit

### **Nurses:**

- ☐ who have signed the consent form
- ☐ who are in consultation with diabetic patients
- ☐ who are employed at an identified facility

***Use the following instructions as a guideline when completing the observational checklist:***

- Provide checklist with a number in the dedicated block. Start numbering as 01.
- Questions 1–11: Complete with the identified patient and nurse prior to them entering a consultation. These interviews need to be conducted individually and in privacy.
- Question 12: Note the time the consultation starts. When at question 12, start audio recording the consultation. NOTE: *Immediately audio record the number of the consultation.* Stop recording at question 42.
- Questions 13–35: Need to be completed whilst the consultation is in progress.
- Questions 39–41: Need to be completed with the identified patient and nurse *after* the consultation. These interviews need to be conducted individually and in privacy.
- Field notes can be made throughout interview

### ***Questions 1–11***

***Indicate the appropriate answer (☒) , or write the answer in the space provided on the checklist***

- 1 Write name of facility where the interview is conducted.
- 2 Indicate with which type of diabetes the patient has been diagnosed.
- 3 Indicate language in which interview was conducted.
- 4 Write down date questionnaire is completed, in order of day, month, and year.
- 5 Indicate gender.
6. Indicate age in years – write down the current age of the person.
7. Indicate person's home language – indicate the language most often spoken at home?
8. Indicate highest level of education *completed*

	<b>Nurse</b>	<b>Patient</b>
9	Have you received any diabetes-related training in your professional capacity during the past 12 months? If yes, state content covered.	Have you received any information about diabetes during the past 12 months? If yes, state content covered.
	If answer is <b>no</b> : Write down No training/no information If answer is <b>yes</b> : Write down the content covered during the training for nurses. Information for patients may have been received via the radio/family members. <ul style="list-style-type: none"> <li>Answers could be: symptoms, treatment or prevention of diabetes.</li> </ul>	
10	Have you received any communication skills training in your professional capacity during the past 12 months? If yes, state content covered.	Have you received any information on how to talk to others during the past 12 months? If yes, state content covered.
	If answer is <b>no</b> : Write down No training/no information If answer is <b>yes</b> : Write down the content covered during the communication skills training for nurses and for patients, information obtained via the radio/family members <ul style="list-style-type: none"> <li>Answers could be: listening skills, reflection or validation</li> </ul>	
11	How long have you been consulting diabetic patients in your professional capacity?	How long have you been diagnosed with diabetes?
	When asking the question, it does not include only consultation at the facility where the nurse is currently working, but rather throughout his/her career.	Write down the time period as indicated by the patient Answers could be: 4 weeks or 15 years

**NOTE:** Start recording of interview after having recorded the checklist number.

12	Time interview started:	
	Write time in 24-hour format, e.g. 13:10	

Where applicable use the following scale when rating elements.

1	None of the specified elements observed, implying either not applicable or required
2	Element observed, but not consistently displayed/responded to
3	Element consistently displayed/responded to

**OR**

Yes/ No when indicated

Questions 13–38 involve observation of both the patient and nurse whilst the consultation is in progress.

Number 3 on the rating scale equals the golden standard to a health dialogue element – refer standard set in guideline box.

**NOTE:**

After completion of a day's observational checklists, the fieldworker will again listen to the consultations and verify own ratings of elements.

13	Collaborative two-way interaction	Collaborative two-way interaction
	Collaborative (shared) interaction between nurse and patient throughout consultation.	

14	Response to illness: physically	Response to illness: physically
	Physical response to illness throughout consultation whenever appropriate e.g. touching of hands or using non-verbal gestures.	
15	Response to illness: emotionally	Response to illness: emotionally
	Emotional response to illness throughout consultation whenever appropriate e.g. giving a tissue if crying. thr	
16	Response to illness: spiritually	Response to illness spiritually
	Spiritual response to illness throughout consultation whenever appropriate e.g. reference to Higher Being/God.	
17	Response to illness socially	Response to illness socially
	Social response to illness throughout consultation whenever appropriate e.g. type of transport services used to visit facility or maintained eye contact throughout.	
18	Introduced themselves in a friendly manner	Introduced themselves in a friendly manner
	It is possible that the introductions might have taken place prior to the recording of the consultation, e.g. in waiting room. Note your observation in this re.g.ard, irrespective of when the introduction/greeting took place.	
19	Ensure privacy throughout	
	This question is only applicable to the nurse. Privacy is ensured throughout the consultation, e.g. consultation behind a closed door.	
20a	Identified reason for visit	Identified reason for visit
	Main reason for visit established.	
20b	Identified problem	Identified problem
	Any health problem(s) identified.	
21	Agreement on planned outcome	Agreement on planned outcome
	Nurse specifically states a <i>measurable</i> goal/end result in order to address the problem/client specific outcomes.	Patient verbally or non-verbally agreed to/acknowledged the stated <i>measurable</i> goal/end result in order to address the problem/ client specific outcomes.
22	Clarifies responsibilities/actions in order to reach outcome	Understands responsibilities/actions in order to reach outcomes.
	Nurse makes it clear during the consultation what she/he would do to address the problem.	Patient verbally or non-verbally indicates understanding of own responsibilities/actions needed.
23	Characteristic: Trust	Characteristic: Trust
	Expression/establishment of trust in a verbal or non-verbal manner e.g. expression of trust in nurse/patient adhering to expected responsibilities/actions.	

24	Characteristic: Empathy	Characteristic: Empathy
	Display empathy throughout consultation whenever appropriate e.g. <u>reflection on patient's emotions/sharing understanding</u> .	
25	Verification of meaning	Verification of meaning
	Verify meaning of words/gestures throughout consultation whenever appropriate e.g. possible inconsistency between verbal or non-verbal responses.	
26	Emotional support	Emotional support
	Display emotional support throughout consultation whenever appropriate e.g. <u>acting compassionately</u> .	
27	Labelling of gender observed	Labelling of gender observed
	<b>No labelling</b> of gender observed e.g. male patients not being able to stick to diet regulations due to them having to eat what their wives cook.	
28	Clarifies terminology used	Shows understanding of terminology used
	Clarifies terminology used throughout consultation whenever appropriate e.g. asking the patient whether he/she understood a specific word with the patient responding to such an explanation. The patient could also ask the nurse to clarify terminology.	
29	Sensitivity regarding health beliefs	Responds to sensitivity shown towards health beliefs
	Act sensitively re.g.arding health beliefs e.g. the patient saying that the eating of cold <i>pap</i> is healthier than eating warm <i>pap</i> , and the nurse not saying that it is a harmful/wrong belief, but rather guiding the patient by incorporating this belief.	
30	Recognises existing health knowledge	Responds to identified existing health knowledge
	Act sensitively re.g.arding existing health knowledge e.g. asking about health knowledge such as "exercise", then using the answer to build the rest of the conversation.	
31	Validates understanding of health knowledge	Respond to validation of health knowledge
	Validates understanding of health knowledge e.g. asking the other party how he/she understood the conversation.	
32	Sensitive towards patient's ability to read health information	Responds to sensitivity towards ability to read health information
	Act sensitively towards patient's ability to read health information e.g. asking the patient whether he/she would be able to read a health pamphlet/poster and patient accepting such a concern shown by the nurse.	
33	Sensitive towards patient's ability to understand health information	Responds to sensitivity towards ability to understand health information
	Act sensitively towards patient's ability to understand health information e.g. asking patient whether he/she understand discussion related to disease.	

34	Sensitive towards electronic devices used by patients	Responds to sensitivity towards devices used by patient
	Act sensitively towards electronic devices used by patients e.g. asking the patient whether he/she has access to a cell phone/can read an SMS, and patient affirming this.	
35	Consultation held within a legal framework	Shows respect for consultation within legal framework
	Act within a legal framework throughout consultation e.g. referring patient according to policies/scope of practice and patient accepting such referral. Refer to attached guideline.	
36	Requests whether sensitive information could be discussed	Agrees that sensitive information could be discussed
	Manage sensitive information throughout the consultation in a manner acceptable to both parties e.g. sexual orientation and patient being comfortable with such request	
37	Sensitive towards socio-economic influences on treatment	Responds to sensitivity towards socio-economic influences on treatment
	Act sensitive towards socio-economic influences on treatment e.g. not necessarily expecting all patients to eat a balanced meal daily and patient accepting this.	
38	Evaluation of previous strategies used to reach identified goal	Responds towards evaluation of previous strategies used to reach identified goal
	Evaluate of previous strategies used to reach identified goal e.g. asking whether previously given health pamphlet was of any use/taking of medication.	
	<b>To complete Part 3, interview nurse and patient individually</b>	
39	Have you experienced a sense of shared responsibility during this consultation? Please motivate	Have you experienced a sense of shared responsibility during this consultation? Please motivate
	If answer is <b>no</b> : Write down No shared responsibility experienced If answer is <b>yes</b> : Write down the response e.g. "I felt that we both agreed on the treatment/we jointly decided what to do next."	
40	Did you benefit from this consultation? Please motivate	Did you benefit from this consultation? Please motivate
	If answer is <b>no</b> : Write down No benefit from consultation If answer is <b>yes</b> : Write down the response e.g. "No, not sure; I had just finished with another patient/Yes, I received my medication."	
41	Were you able to consider the patient's circumstances during the consultation? Please motivate	Did you experience that the nurse considered your circumstances in this consultation? Please motivate
	If answer is <b>no</b> : Write down Not able to consider patients consultation If answer is <b>yes</b> : Write down the response e.g. "Yes, she is poor, but I could not really help her/Yes, she said she does not have fruit and vegetables to eat every day "	



42	Time interview ended
	Write time in 24-hour format, e.g. 13:30