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# Sexual health in primary health care settings in North West province

**Pretorius, Deidré**

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# DOCTORS' CONSULTATION SKILLS AND PATIENTS' SEXUAL HEALTH IN PRIMARY HEALTH CARE SETTINGS IN NORTH WEST PROVINCE

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A thesis completed by published work,
submitted to the School of Clinical Medicine, Faculty of Health Sciences,
University of the Witwatersrand,
in fulfilment of the requirements for the degree of
Doctor of Philosophy

JOHANNESBURG, SOUTH AFRICA
March 2021

# DECLARATION

This thesis is submitted in the divided block format, approved by the Faculty of Health Sciences, of published work with an encompassing introduction and conclusion.

I, *Deidré Pretorius*, declare that this thesis *Doctors' consultation skills and patients' sexual health in primary health care settings in North West province*, is my original work. It is being submitted for the degree of Doctor of Philosophy in Family Medicine in the Faculty of Health Sciences of the University of the Witwatersrand, Johannesburg, South Africa.

It has not been submitted before for any degree or examination at this or any other university.

I have read the sections on referencing and plagiarism in the Wits Plagiarism Policy. I am aware that the plagiarism is wrong and that the University of the Witwatersrand may take disciplinary action should plagiarism be found in this work. I have followed the required conventions in referencing the thoughts and ideas of others. I confirm that all the work submitted in this thesis is my own unaided work except where I have explicitly indicated otherwise.



Signature:
Name: Deidré Pretorius
Date: December 2021

# ABSTRACT

The researcher's personal experiences and the literature review confirmed that sexual history taking (SHT) for sexual dysfunction (SD) is not common in primary care nor in routine consultations. Illness and medication can both contribute to sexual dysfunction and justify a patient-doctor encounter. Various barriers to sexual history taking have been identified in the past, including age, sex and cultural discordance, shyness or discomfort, lack of skill and knowledge, and time or treatment constraints. Few studies have been published on sexual dysfunction is South Africa. The observation of the interaction dynamics focussing on history taking of sexual dysfunction in real time consultations was an innovative research concept.

The broader aim of this study was to describe the consultation process, associated factors and skills required for successful disclosure of sexual health issues during patient clinical encounters with doctors in primary health care settings in the North West Province, South Africa. The following objectives are reflected as aims in the six articles: 1) To quantify the observations and descriptions of sexual history taking during routine consultations in primary care settings and to identify if patients wanted to discuss sexual issues with doctors, and possible quantitative barriers to sexual history taking, as well as to assess the nature of communication and holistic practice of doctors in these consultations. 2) To describe sexual history taking as well as doctor-patient interaction regarding sexual history taking, during routine consultations in primary care settings in Dr. Kenneth Kaunda Health District, North West Province, South Africa. 3) To explore doctors' and patients' perspectives on sexual history taking during chronic primary healthcare consultations with patients at risk of sexual dysfunction, and to report how patients and doctors viewed talking about sexual matters, as well as their perspectives on barriers and facilitators of sexual history taking. 4) To assess the proportion of patients living with symptoms of sexual dysfunction that could have been elicited or addressed during routine chronic illness consultations. 5) To assess doctors' clinical decision-making processes regarding sexual dysfunction risks and management in chronic illness patients in primary care, based on two hypothetical patient scenarios, by reviewing the doctors' diagnostic perception and management of these case studies; to compare the scenario outcomes with a reference groups outcomes of the same scenarios; and to describe the clinical reasoning and decision-making process. 6) To identify barriers to and facilitators of sexual history taking that primary care doctors experience during consultations involving patients with chronic illnesses using reflective interviews.

The research study was conducted in ten of the 36 primary care facilities in Dr Kenneth Kaunda Health District, North West Province, South Africa, where health care services are provided to nearly 800 000 individuals.

This study used a grounded theory research design. A sample of 151 consultations involving patients with diabetes and hypertension who were consecutively sampled formed the core of this study. These patients were purposively selected based on their risk of sexual dysfunction due to their illness and medication. All the doctors in primary care, excluding the family physicians, were recruited to participate. Doctor data collection involved 151 visually recorded routine consultations by 21 doctors. Nineteen doctors completed the two hypothetical scenario vignettes. Patient data collection entailed patients completing sexual dysfunction questionnaires (FSFI and IIEF) to establish the proportion of patients living with sexual dysfunction symptoms. Patient records were reviewed to obtain data on co-morbidities, medication and presenting complaints. Field notes and memoing formed the third part of the data collection.

Quantitative data such as patient and doctor characteristics were analysed using descriptive statistics and the Fischer Exact Test was used to elucidate the associations between patient and doctor characteristics and sexual dysfunction, and to compare the doctors' responses with the reference group's responses. The Shapiro-Wilk Test for normality was used to analyse the age distribution of the patient participants in the sample. Qualitative data such as recorded consultations, interviews, open-ended questions on the questionnaires, and field notes were analysed using the MaxQDA 2018 software. The initial coding was descriptive as well as in-vivo line-by-line coding naming concepts and developing provisional codes. Axial coding followed where relationships or connections were established between codes. These codes were selected in categories and named. Template analysis was performed for categorical variables that emerged from the interpreted data and existing assessment tools. The vignettes had a mixed method analysis using qualitative analysis to code the answers to the scenarios and then these codes became variables, which were quantitatively analysed.

No sexual history taking for SD took place and doctors in only five of 151 consultations (3%) enquired about the patients' HIV status and vaginal health. A total of 54 of the 151 consultations (36%) reflected a working relationship with the patient, focussing on the problem and not the person. Most of the consultations (66%) had insufficient evidence of holistic practice. Consultations were compromised by a lack of professionalism, doctor-centredness as well as poor communication skills. Doctors demonstrated lower levels of competence in clinical reasoning than expected at their level of experience, and they failed to identify or screen for sexual dysfunction risks. Patients wanted the doctors to ask about SD and the doctors were waiting for patients to talk about it. Generally, patients believed that nothing would stop them from discussing sexual challenges with their doctors, except if the doctor was rude, and did not listen, though they did not do so. Doctors, on the other hand, indicated there were too many other things to discuss during the consultation so that SD was not a priority, and that time constraints were an important barrier. Three themes summarised the multiple realities of the patient-doctor-system triad, namely, lack of patient centredness (doctor centredness

and poor communication), a limiting consultation context (lack of privacy, interruptions, and poor filing systems) and consultation content (the scope of sexual history taking, no screening for sexual dysfunction and overall poor chronic care). A Theory of Dynamic Interaction emerged and strategies for change are suggested.

In conclusion, a poor patient-doctor-system interaction led to a disconnect between patients and doctors which contributed to sub-standard consultations. The consultations observed in primary care suggested that doctors are stuck in a rut, with little professional fulfilment, and patients are consulting because they have no other option than to do so. The emerging theory of change is dynamic interaction, where communication and person-centredness are keys to modify the patient-doctor-system relationship.

**Key words:**
Sexual dysfunction; chronic illness; patient centredness; professionalism; social construction of reality; patient-doctor interaction; health system; change theory; diabetes; hypertension; sexual history taking.

# DEDICATION

I dedicate this work to

my dear husband, Hendrik, our children, and

my parents, James Patrick, and Estelle Gillespie.

*All the world's a stage,*
*And all the men and women merely players;*
*They have their exits and their entrances,*
*And one man in his time plays many parts…*
(Written approximately in 1599 by William Shakespeare and published in 1623)
All good things take time.

# ACKNOWLEDGEMENTS

A big thank you to my research supervisors Professor Ian Couper and Dr Motlatso Mlambo. Both of you had endless patience and dedicated time to teach and mentor me and shared your expertise freely. Without you, this was not possible. I hope this is not the end of our creative journey.

Thank you to Ms Silindile Mbatha, research assistant and colleague, who packed her bags, set off to a very cold North West, and conquered clinic staff and patients with her warm smile and work ethics. Silindile, it was wonderful to do this project with you next to me. My best wishes for your studies.

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To Professor Hermanus Schoeman who reviewed the statistics, thank you. Sincere thanks to Mr Devind Peter (Medical School library), for finding 'non-online' articles and scarce books for me within hours - your assistance made literature searches a pleasure. A special thank you to Nineke, my daughter, who assisted with formatting references when time was running out.

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To God be the glory!

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# LIST OF ABBREVIATIONS

| | | |
|---|---|---|
| AIDS | - | Acquired Immunodeficiency Syndrome |
| FSFI | - | Female Sexual Function Index |
| HIV | - | Human immunodeficiency virus |
| IIEF | - | International Index of Erectile Function |
| PC | - | Primary Care |
| SD | - | Sexual dysfunction |
| SHT | - | Sexual history taking |
| WHO | - | World Health Organisation |
| WPBA | - | Workplace Based Assessments |

# PREFACE AND DESCRIPTION OF THESIS SECTIONS

The integrative narrative will be organised in ten chapters:

- Chapter 1 covers the introduction and justification of the study as well as the aims and objectives.
- Chapter 2 outlines the literature review, giving a broader background to the study, ending with aims and objectives and the axiological and philosophical assumptions.
- Chapter 3 comprises of the methodology, starting with the interpretive framework. It is then followed by the research design, the detail of the two studies to fulfil the aim of the study and ethical considerations as well as limitations to the studies. The methodology chapter also includes a reflexivity section.
- Chapter 4 describes sexual history taking and perspectives on doctor-patient interactions during routine consultations in rural primary care in South Africa.
- Chapter 5 deals with sexual history taking in rural primary care in South Africa where patient-doctor interaction inhibits sexual history taking and sexual dysfunction were overlooked.
- Chapter 6 presents the patients' and doctors' perspectives on sexual history taking in routine primary care consultations highlighting the disconnect between patients and doctors.
- Chapter 7 shows the proportion of patients with neglected sexual dysfunction symptoms among patients who attended for routine consultations in rural clinics in North-West Province.
- Chapter 8 informs on clinical decision making in primary care regarding sexual history taking.
- Chapter 9 reports on primary health care doctors' reflections on sexual history taking, claiming "We are not truly friendly faces".
- Chapter 10 is the discussion section, summarising key findings of the research and then providing a new perspective on these through the lens of the social construction of reality theory. It also offers an emerging theory of Dynamic Interaction to change the patient-doctor-system disconnect.
- Chapter 11 reflects the conclusion and recommendations.

Note: Referencing in the Chapters one to three, 10 and 11 is according to the University of the Witwatersrand Vancouver superscript libguide (https://libguides.wits.ac.za/c.php?g=145382&p=952469). The other chapters have the articles which are formatted according to the publisher's requirements.

## JOURNAL SUBMISSIONS EMANATING FROM THE WORK PRESENTED IN THIS THESIS

1. **Pretorius, D.**, Couper, I.D., Mlambo, M.G.. Patient-doctor interaction inhibits sexual history taking in routine primary care consultations in North West Province South Africa. Submitted to *African Journal for Primary Care and Family Medicine* and under review.

2. **Pretorius, D.**, Mlambo, M.G., Couper, I.D.. 2021. Sexual history taking: Perspectives on doctor-patient interactions during routine consultations in rural primary care in South Africa. *Sex. Med.* **9**:100389. Doi: 10.1016/j.esxm.2021.100389

3. **Pretorius, D.**, Couper, I.D., Mlambo, M.G.. Perspectives on sexual history taking in routine primary care consultations in North West, South Africa: Disconnect between patients and doctors. Submitted to *African Journal for Primary Care and Family Medicine.*

4. **Pretorius, D.**, Couper, I.D., Mlambo, M.G.. 2021. Neglected sexual dysfunction symptoms among chronic patients during routine consultations in rural clinics in North-West Province. *Afr. J. Prm. Health Care Fam. Med*. **13**(1): a2850. doi:10.4102/phcfm.v13i1.285.

5. **Pretorius, D.**, Couper. I.D., Mlambo, M.G.. 2021. Sexual history taking: Clinical decision making in Primary Care North West, South Africa. *Afr. J. Prm. Health Care Fam. Med***. 13**(1):a2985. doi:10.4102/phcfm.v13i1.2985

6. **Pretorius, D.**, Couper, I.D., Mlambo, M.G.. 'We are not truly friendly faces': Primary health care doctors' reflections on sexual history taking in North West province. Submitted to *Sexual Medicine. Dealing with Revisions for final submission.*

# CONFERENCE PRESENTATIONS EMANATING FROM WORK IN THIS THESIS

**WORKSHOP:**

**Pretorius D** & Edwards D. *Sexual Health Workshop*. 2019. 22nd National Family Practitioners Congress August 23, 2019 – August 25, 2019. Midrand Conference Centre, Midrand. South Africa. The researcher presented preliminary findings of sexual dysfunction from this research after which the workshop facilitated discussion on patient-doctor engagement about and pharmacological management of erectile dysfunction and low sexual desire.

**ORAL PRESENTATION:**

**Pretorius, D.,** Couper, ID., Mlambo, MG. 2020. *Sexual History Taking in Rural Primary Care in North West Province: Patients at risk of sexual dysfunction overlooked*. Faculty of Heath Science Research day and Post Graduate Expo 15 October 2020. University of Witwatersrand. Johannesburg. South Africa.

**Pretorius, D.,** Mlambo, MG., Couper, ID. 2021. *Sexual dysfunction: A forgotten subject*. Guest presenter at a WAS continuous education webinar on Tackling Erectile Dysfunction in Africa: Experiences from the field held on 20 May 2021. The focus was on this research findings about male sexual dysfunction symptoms and the omission sexual history taking during the primary care consultations.

**POSTER PRESENTATION:**

**Pretorius, D.,** Couper, ID., Mlambo, MG. 2021. *Sexual history taking in rural primary care in South Africa compromised by poor communication and consultation skills*. Accepted for the 15th International Conference on Communication in Healthcare (ICCH) 18-19 November 2021.

**Pretorius, D.,** Couper, ID., Mlambo, MG. 2021*. Sexual history taking in rural primary care in South Africa: A need for dynamic change.* Accepted for the 15th International Conference on Communication in Healthcare (ICCH) 18-19 November 2021.

**Pretorius, D.,** Mlambo, MG., Couper, ID. 2021. *Complexity of sexual history taking in patients with diabetes and hypertension in routine primary care consultations in Dr K Kaunda Health District, South Africa.* Accepted for the World meeting of International Society of Sexual Medicine 19-21 November 2021.

**OTHER OPPORTUNITIES EMANATING FROM THIS RESEARCH:**

Member of the team who developed the Postgraduate Diploma in Sexual Health & HIV Medicine for the College of Family Physicians of the Colleges of Medicine of South Africa. 2021

Invited to a Round Table meeting 22 & 23 October 2021 in Saltsburg, Austria, to join the European Sexual Medicine (ESSM) Network to discuss Sex Education in medical schools globally. Virtual participation. Opportunities may be available to improve training of undergraduate medical and psychology students in South Africa.

## CONTRIBUTIONS OF AUTHORS TO THIS PROJECT

Authors' contributions to the articles arising from this research:

a) Conception and design: *Pretorius D, Mlambo MG, Couper I*
b) Acquisition of data: *Pretorius D.*
c) Analysis and interpretation of data: *Pretorius D, Mlambo MG, Couper I* and code review with the assistance of *Dreyer A, Ruch A, Lion Cachet, C and Erumeda N* to improve rigour. *Drs Mohoto, Mkhaba and Matthews joined the reference group for the vignette study.*
d) Drafting the articles: *Pretorius D.*
e) Revising for intellectual content: *Couper I, Mlambo MG, Pretorius D.*
f) Final approval of the completed documents: *Mlambo MG, Couper I, Pretorius D.*

# CHAPTER 1: INTRODUCTION

## 1.1 INTRODUCTION

Chapter 1 introduces the contextual background and study justification. It describes the purpose of the study, presents the aims and objectives of this novel research on sexual history taken during routine consultations with patients at risk of sexual dysfunction (SD), the question driving the research concept and the nature of the literature review that underpinned the aim, objectives, and methodology of this study.

## 1.2 CONTEXTUAL BACKGROUND TO THIS RESEARCH STUDY

The World Health Organisation (WHO)[1] described sexual health as a central aspect of being human throughout life, expressed as sex, gender identities and roles, sexual orientation, eroticism, pleasure, intimacy, and reproduction. It includes sexuality as experienced and expressed in thoughts, fantasies, desires, beliefs, attitudes, values, behaviours, practices, roles, and relationships. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination, and violence. For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected and fulfilled.[2]

To protect sexual rights and enhance pleasurable and safe sexual health, health workers must explore sexual functioning in the clinical situation. Disease, medication side effects and age are commonly associated with sexual challenges and the expectation is that it will be explored in the clinical consultation.[3–10] Initiating sexual history taking is found to be difficult for many doctors, and the question is often whether the patient or the doctor must initiate the discussion. Previous studies found that patients often want to address sexual challenges with their doctors, but few have the opportunity to do so, and if they do have the chance during the consultation, they fail to obtain the appropriate help.[11–14] It has also been suggested that certain barriers such as time, age, sex, culture, and lack of skill complicate sexual history taking or discussions about sexual functioning or sexuality. Doctors reported a lack of knowledge regarding sexual dysfunction, and similarly, patients did not always know their symptoms have a diagnostic name and can be managed.[15–17]

Age, disease and/or medication bring the patient and doctor together in a clinical consultation where both have private and personal perceptions about sexuality. As preventative medicine is the core of health care practice in South Africa, there is the expectation that sexual functioning will also form an integral part of the clinical consultation and chronic care of

patients. However, a systematic review by Campbell and Stein[18] on South African research on sexual dysfunction, indicated that only five articles on male dysfunction were published between 1970 and 2014, and they also referred to poor help-seeking behaviour as well as lack of opportunity for patients to disclose sexual challenges to a doctor. Globally, two extensive studies increased the awareness of sexual health and challenges. The Massachusetts Male Aging Study[19], a survey of 1 709 men aged between 40 and 70 years, and Shifren *et al.*[20] with a study of 31 581 women aged between 18 and 102 years in the U.S.A., suggested that between 44% and 52% of these participants lived with sexual dysfunction. Since 2014, the few studies performed in South Africa on sexual dysfunction, all stated the need for doctors to explore sexual functioning.[21–24] Sexual and reproductive health are considered a fundamental right under the South African constitution.[25] As it is also an essential part of biopsychosocial well-being it can therefore be concluded that health care professionals should identify and manage it when providing health care services.[26] This can be linked to the disclosure of sexual challenges in the consultation.

In a study of a culturally diverse population in Lausanne, Switzerland, it was found that 90.9% of 1 452 participants wanted to discuss sexual challenges with their doctors.[27] Unfortunately, Lewis *et al.*[28] found that 20% of patients seek assistance from health care providers and only in 9% of the consultations were they were asked about sexual health. Globally, patients' sexual dysfunction and risks were often unmet, negated, ignored or dismissed without a full evaluation.[29,30] When sexual wellbeing is ignored, patients often use clinically untested and even unsafe substances to deal with sexual dysfunction symptoms.[31,32] They also suffer psychosocial consequences, namely poor self-esteem, relational challenges, and issues of mistrust and infidelity.[33] Sexual challenges can become so interwoven in daily life that it is difficult to establish what comes first – the relational conflict or the sexual challenges. The relational conflict can escalate to intimate partner violence and the collapse of family structures or increased risk behaviour to compensate for the dysfunction. The current study was therefore prompted by the sexual history process during routine consultations, as well as the nature of sexual history taking (SHT), if it takes place, and the patient-doctor engagement during this patient-doctor encounter in a chronic care consultation in primary care (PC) regarding sexual dysfunction (SD).

## 1.3 THE QUESTION DRIVING THE RESEARCH CONCEPT

Working with patients triggered the first interest in the topic. Marital conflict, disease, mood disorders, and more – it often ended with the lack of or demand for intimacy and/or sex. The turning point was a couple happily married for 20 years, requesting divorce counselling due to a verbally abusive relationship. The wife had developed epilepsy and was diagnosed with neurocysticercosis. She was prescribed a high dosage of carbamazepine. Her epilepsy was

controlled, but she became a “frigid wife”. She used to enjoy intimacy in their relationship, but suddenly she was not interested, and it did not matter what her husband did, she did not respond. The prescribing physician had not discussed the effect of the drug on sexual desire. Knowing where her lack of interest originated from, we could work on a different approach to intimacy, saving a marriage. This then became a passion for teaching students on exploring sexual health when the researcher joined tertiary training 20 years ago as a part-time lecturer in Family Medicine.

The researcher trained medical practitioners specialising in Family Medicine in communication skills and listened to their reasons as to why it was taboo or too sensitive to talk about sex. With training, the sensitivity issue seemed to disappear if the registrar was confident enough to explore for sexual dysfunction in the same way as they explored any other condition. However, despite being given the assurance that doctors screen for sexual health issues, including sexual dysfunction when indicated, observations during training and assessments did not confirm this.

This research study was thus initiated with the perspective that doctors do not always explore or discuss sexual dysfunction, even if it is indicated. To reduce the influence of personal views, a team of reviewers were constituted to assess the observations and codes emerging from the data. The nature of the concept of sexual history taking, also required some more traditional ways of investigating the research topic, such as the presence of sexual dysfunction and the assessment of clinical reasoning. The study focussed on a specific component of the clinical consultation, namely the sexual history taking (SHT) process with adult patients at risk of SD during routine consultations. As information on SHT was scarce, especially for patients at risk of SD, such as patients living with diabetes and hypertension, this led to the following research question:

What was the consultation process, associated factors and skills required for successful disclosure of sexual health issues during patient clinical encounters with doctors in primary health care settings in the North West Province, South Africa?
The sub-questions were:

- What were the personal and demographic characteristics of the study participants?
- What system or setting related factors influenced the consultation outcomes?
- What was the scope and quality of the consultation assessed with the Workplace Based Assessment (WPBA) competence framework of the Royal College of General Practitioners (RCGP)?
- What was the scope and quality of the sexual history taking during the consultation compared to a theoretical Sexual History Taking Algorithm?

- What was the nature of the soft communication skills the doctor displayed during the consultation e.g., listening, reflection, and clarification?
- Which verbal cues regarding sexual dysfunction and/or dysfunction were communicated during the consultation?
- What forms of non-verbal interaction between doctor and patient were observed during the routine consultation when SD was discussed?
- What was the number and nature of successful consultations that enhanced the disclosure of sexual wellbeing?
- What clinical information suggested a risk for SD as part of the triangulation of information?
- How many of the patients consulted lived with SD-symptoms and what was the type of symptoms they experienced (triangulation of information)?
- What were the perceptions of the doctors and patients on SHT?
- What factors limited or enhanced SHT as perceived by the patients and the doctors?
- What was the doctors' clinical awareness of sexual health and diagnostic perceptions, as well as management of SD risks in chronic disease based on a diagnostic and management perception of two hypothetical case studies?
- Could the study result in a theory on the clinical consultation process and disclosure of sexual health problems?
- What were the doctors' points of view on SHT and the consultations that were recorded?
- What factors limited or enhanced the disclosure of SHT during routine consultations?

## 1.4 AIMS AND OBJECTIVES

The study had two parts each with different methodologies. The aims and objectives in the research proposal were comprehensive to obtain the maximum data at various points in the routine consultation process. The aims and objectives were condensed for reporting in the six articles. Appendix 1 and the approved research protocol (Appendix 2), reflect the study aims and objectives linking the data obtained from these objectives with the articles.

### 1.4.1 Aim

The aim of this study was to describe the consultation process, associated factors and skills required for successful disclosure of sexual health issues during patient clinical encounters with doctors in primary health care settings in the North West Province, South Africa.

### 1.4.2 **Objectives**

The following objectives are reflected in the six articles:

1. To quantify the observations and descriptions of sexual history taking during routine consultations in primary care settings and to identify if patients wanted to discuss sexual issues with doctors, and possible quantitative barriers to sexual history taking, as well as to assess the nature of communication and holistic practice of doctors in these consultations.
2. To describe sexual history taking as well as doctor-patient interaction regarding sexual history taking, during routine consultations in primary care settings.
3. To explore doctors' and patients' perspectives on sexual history taking during chronic primary healthcare consultations with patients at risk of sexual dysfunction, and to report how patients and doctors viewed talking about sexual matters, as well as their perspectives on barriers and facilitators of sexual history taking.
4. To assess the proportion of patients living with symptoms of sexual dysfunction that could have been elicited or addressed during routine chronic illness consultations.
5. To assess doctors' clinical decision-making processes regarding sexual dysfunction risks and management in chronic illness patients in primary care, based on two hypothetical patient scenarios, by reviewing the doctors' diagnostic perception and management of these case studies; to compare the scenario outcomes with a reference group outcome of the same scenarios; and to describe the clinical reasoning and decision-making process.
6. To identify barriers to and facilitators of sexual history taking that primary care doctors experience during consultations involving patients with chronic illnesses using reflective interviews.

## 1.5 **THE SOUTH AFRICAN HEALTH SYSTEM AS THE STUDY BACKGROUND**

Non-communicable diseases in South Africa are increasing, prominently among the poor, and will be a leading cause of death by 2030. [34–36] As it occurs concurrent to HIV/AIDS, the burden of disease and care will have major economic and social impacts.[34–36] The burden of disease is at present managed primarily in the public health service that is described as rigid and bureaucratic.[37,38]

South Africa has two health care systems, a private sector where patients pay fees for services and a public health sector managed and funded by the government to provide service to the majority of the country's 55 million inhabitants, who do not have health insurance or the personal financial resources to pay for private health care.[36,39] According to Chapter two of the South African National Constitution, primary health care is a right[40] and therefore primary health care services are free to any person in the community. The provincial

government has the responsibility of rendering primary care services for the public sector, with the operational management of these being decentralised to district level. The number of doctors in the public sector is significantly less than those in the private sector and the public sector services are further diluted with public doctors working part time in private practices.[36] The public health care system is often described as a dysfunctional setting due to underfunding, mismanagement and neglect, and failure to render a good service in a dilapidated infrastructure.[36,41] Despite this, a number of health care teams in South Africa strive to improve this situation. The Ideal Clinic Realisation and Maintenance programme has improved health services in about 10% of the country's primary care clinics.[42] The present research study was conducted in the public health care sector in the Dr Kenneth Kaunda District of the North West Province (described in detail in Chapter 3). The integrated primary care model brought hope that chronic care in South Africa will ensure more comprehensive services in the public health care system.[37,38]

Family Medicine has a comprehensive integrated approach which doctors in South Africa are exposed to during their training.[39] Comprehensive guidance on the management of chronic illness is updated regularly by the national Department of Health and is incorporated in the standard treatment guidelines for primary and secondary care level used by doctors. National prevention policies are also developed to assist doctors in dealing with non-communicable diseases and their risk factors.[43] Sexuality in tertiary training, globally and in South Africa, is mainly heteronormative and often focuses on reproductive health, sexual development and sexual risk behaviour.[44,45] Warner *et al.*[46] found that medical students in Minnesota, USA, were under-prepared to address sexual health issues in practice. Anecdotally, South Africa provides sexual health medicine training in various disciplines; however, no published reports on sexual health curricula or medical students readiness to deal with common sexual health issues besides reproductive health and the consequences of sexual risk behaviour, were found. The risk behaviour focusses mainly on screening and management of human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) and sexually transmitted infections (STI).[47,48]

## 1.6 THE STUDY SIGNIFICANCE

Failing to diagnose and manage SD often leads to poor quality of life, despair and practices which are potentially harmful such as sexual risk behaviour to compensate for perceived inadequacies, or the use of traditional or untested medicines which can harm a patient or compromise the pharmacological management of the patient.[32,33,49,50] From a pathophysiological point of view, sexual dysfunction is not always an independent condition; it can be a biomarker of cardiovascular or even neurological complication in patients with chronic illness.[51]

A motivation for this study was determining the ability of the doctor to screen for SD during a routine consultation with patients living with chronic illness in a rural PC setting. Figure 2.1 represents the diverse factors associated with the doctors' ability to do sexual history taking, for which South Africa has very little or fragmented evidence.

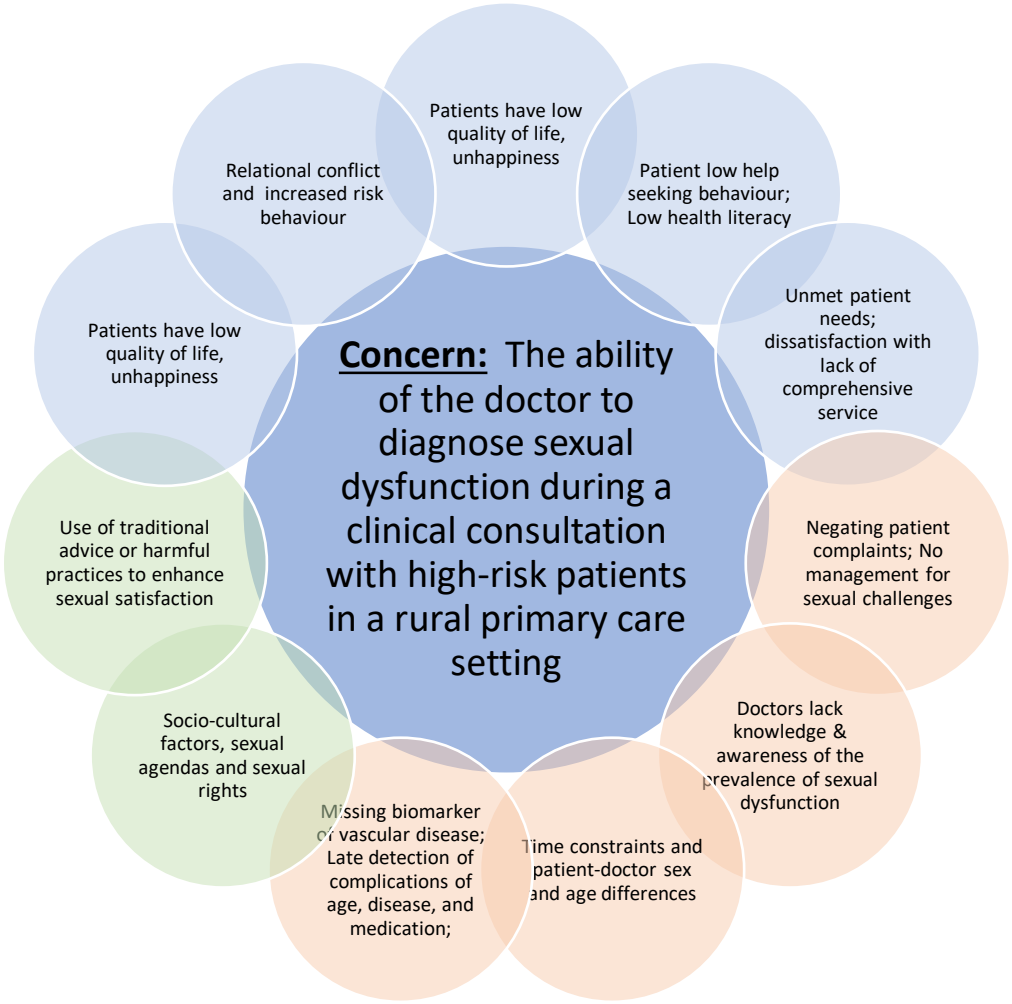


**Figure 1.1: Schematic Components of Sexual History Taking**[11-19, 29-33,49,50]

Key:
- Factors related to patients
- Factors related to doctors
- Factors related to socio-cultural and gender

An exploratory literature review early in 2018 on sexual history taking of sexual dysfunction during the routine consultation suggested a gap in the literature on observational studies. This was then also true especially for South Africa.[52] There was no evidence of real-time patient–doctor consultations or on taking a history of sexual dysfunction other than recordings done in education or for training purposes. It is not known what happens during the actual clinical consultation between a patient at risk of SD and the doctor that either limit or facilitated sexual history taking. Managing patients' needs can, in the end, improve biopsychosocial patient

care and the patients' quality of life. Although it was impossible to address all the factors, the present research study aimed to fill this gap regarding the patient-doctor SHT interface in the routine consultation.

The SHT process in a routine consultation is a novel research focus which this research study aimed to investigate. This study forms the starting point for further theoretical research. The significance in this research is the voice of the doctors and patients who experienced a disconnect regarding their needs and professional focus. The disconnect between doctors and patients further lead to a quality of service divide – the doctors thinking they are meeting control targets and doing well in terms of service delivery and patients living with unmet needs that could compromise psychosocial and relational wellbeing. This study emphasised that patients are not heard.

The research study will be described in ten chapters and Chapter 11 represent recommendations. This research results will be disseminated in articles using the divided block thesis format as a connective narrative. Following this chapter, will be a supplementary literature review followed by a chapter describing the detailed methods. The six articles following represent subsets of data. Chapter 10 will integrate the results of the six articles and the theoretical focus.

## 1.7 SUMMARY

In the explorative literature review, it was found that little was known about the consultation process and disclosure of sexual health challenges or SD during patient-doctor encounters in routine consultations in primary health care settings. The patient's voice is lost in the consultation. This does not only impact on SHT but spills over to other patient encounters.
The quality of literature on SHT and its core components will be discussed in Chapter 2. A short description of an explorative literature review will be followed by a discussion of the concepts. The focus and scope of this study was the SHT process, and therefore the nature and the prevalence of SD formed an appropriate starting point for the literature review.

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# CHAPTER 2: LITERATURE REVIEW

## 2.1 INTRODUCTION

Chapter 1 introduced this study with a summarised background for the project, followed by the research question, aims and objectives, the rationale or significance of the study and the context of the research. Chapter 2 is a review of the literature for the connecting narrative. The literature review provided in this chapter must be considered as a supplement to the literature reviews in the various articles of this study which are either under review, accepted for publication or published. Finally, this chapter describes the axiological, philosophical, and theoretical framework that guides the epistemological stance of this research project.

## 2.2 SEARCHING FOR LITERATURE

To understand sexual history taking (SHT), an exploratory literature review was completed in April to July 2018 to identify publications on SHT. The review covered the period between January 1, 2000, to January 1, 2018. Databases accessible via the University of the Witwatersrand library platform and the Google Scholar search engine were used. The former included PubMed, ProQuest Family Health Data base, ProQuest Health & Medical Collection database, Scopus, and EBSCO Host (ERIC). The researcher used search terms such as: “Sexual history taking”; “Sexual history taking” AND “routine screening”; “Sexual history taking” AND “sexual dysfunction”; “Sexual history taking” AND “routine consultations”; “Sexual history taking” AND “doctors/clinicians/physicians”; “Sexual history taking” AND “communication”; “Sexual history taking” AND “primary care”; as well as “Sexual history taking” AND “non-communicable disease/diabetes/hypertension”.

Sexual history taking specific to trauma, sexual abuse, sexual assault, or rape, as well as SHT specific to reproductive health, contraceptives, or family planning, were excluded. After excluding duplicates, as well as scrutinizing abstracts and full articles, 113 of the 1268 results dealt with SHT focusing on sexual functioning and well-being (Table1.1). Forty articles had primary findings on SHT and three were excluded as the researcher was only able to access the abstracts and not the full articles. After this literature search, further articles were published on SHT or what patients want regarding SHT, which were added to the literature review in this Chapter. None of the studies up to that point in 2018 observed real time clinical consultations for SHT in the health care setting as part of service delivery.

**Table 2.1: Summary of Articles on SHT Relating to this Study's Research Questions**

| | Google scholar | ERIC | Scopus | PubMed | ProQuest | *TOTAL* |
|---|---|---|---|---|---|---|
| Search results | 1410 | 21 | 27 | 118 | 113 | *1689* |
| Excluding citation and patents | 989 | 21 | 27 | 118 | 113 | *1268* |
| **Exclusions based on titles** | | | | | | |
| Doubles | 14 | | 11 | 57 | 57 | *139* |
| STI/HIV/HPV | 456 | 6 | 11 | 39 | 38 | *550* |
| Books | 83 | | | | | *83* |
| Cancer | 18 | | | 1 | 1 | *20* |
| Reproductive health | 36 | 1 | | 1 | 2 | *40* |
| Trauma | 21 | 4 | | 2 | | *27* |
| Under 18 | 93 | 1 | | | 6 | *100* |
| **Exclusion after reading the abstract** | | | | | | |
| No access | 11 | | | | | *11* |
| Article did not match database or not found / not applicable to search terms | 22 | | | | 1 | *23* |
| Condom use | | 1 | | 1 | | *2* |
| Conference announcements, presentations etc. | 13 | | | | | *13* |
| Dental, drugs, surgery, and dermatology | 14 | | | 2 | | *17* |
| Ethics and law | 8 | | | | | *8* |
| Firearms, MCQ, EBM docs and workbooks | 7 | | | | | *7* |
| Genital piercing | 1 | | | 1 | | *2* |
| Guidelines | 6 | | | | | *6* |
| Treatment of STI clinical and non-clinical | 11 | 1 | | 3 | 3 | *18* |
| Language | 12 | | | 1 | | *13* |
| Social science and pastoral care | 7 | 2 | | 1 | | *10* |
| Physical examination | 6 | | | | | *6* |
| Policy reviews/ reports to Cabinet | 3 | | | | | *3* |
| Post coital bleeding | 1 | | | 1 | | *2* |
| Self-help | 1 | | | | | *1* |
| **Exclusion after reading the full article** | | | | | | |
| Health care workers the focus | 2 | | | | | *2* |
| Health education | 8 | 2 | | 1 | | *11* |
| Partner notification | 4 | | | | | *4* |
| Thesis on sexual but non-related topic | 4 | | | | | *4* |
| Grey literature | 34 | | | | | *34* |
| **TOTAL** | 896 | 18 | 22 | 111 | 108 | *1155* |
| **RELEVANT TO THIS STUDY** | **93** | **3** | **5** | **7** | **5** | ***113*** |

Following the initial readings, the researcher found that two articles with real time observation methodology had been published. Paskins *et al.*[15] published the results of video recorded interviews observing doctor-patient engagement in private practices in the United Kingdom on disclosure of general symptoms, which included a few sexual complaints. Sowicz and Bradway[16] conducted an observational study of 79 patient encounters with homeless people

in the United States of America to observe SHT and documentation thereof with behavioural sexual risks in mind. These studies indicated that observers were physically present during the consultation, which could have prevented SHT. Besides these two studies, the research outcomes on SHT were mainly quantitative self-reported findings leaving a scientific gap for an observational real time study during a private patient-doctor encounter. The assumption was made that a consultation without the physical presence of an observer or researcher would be a more conducive environment for the SHT process. Barnes[1] (an expert on conversation analysis) postulated that observation studies of consultations were the beginning of more patient-doctor interaction research studies and have already contributed to improved patient care. Improving patient care is the goal of this research project.

To further our understanding of this phenomenon, the literature review focused on SHT during the routine consultation, and disclosure of sexual health challenges or sexual dysfunction (SD) during patient-doctor encounters in primary care. Due to the small number of articles found, all articles were used, irrespective of their quality. The literature critique was limited to subsections where the research findings were integrated to understand the study concepts in context.

## 2.3 SEXUAL DYSFUNCTION DEFINED

Sexual dysfunction is often understood differently in varying contexts. Not all sexual problems are SD or SD disorders. It is, therefore, important to provide a working definition of the concept of SD used in this study. This project was not about specific sexual disorders, the prevalence of SD, or even the diagnosis of SD; it was about SHT and SD symptoms the patients experienced which could be elicited during a consultation. Sexual dysfunction was assessed as part of the triangulation of information for the consultation observations. Therefore any reference to SD refers to overall dysfunction defined by the American Psychiatric Association as a “clinically significant disturbance in a person's ability to respond sexually or to experience sexual pleasure”, which forms the basis for all clinically diagnosed SD, as well as various SD instruments.[2]

### 2.3.1 Sexual Dysfunction Diagnosis

For a sexual disorder to be diagnosed according to the DSM-5, the symptoms must be present for six months and must cause distress and impair function in one domain of life to be a SD disorder.[3] It is of note that SD is the only disease where the patient does not have to present with the symptom or complaint per se; the sexual partner of the patient can also raise the issue of SD. The DSM-5 also acknowledged factors associated with SD such as partner, relationship, individual vulnerability, cultural or religious, and medical factors.[3] Psychosocial factors associated with SD and disease are well documented, such as infertility, epilepsy, and auto-

immune conditions.[4–6] It is often difficult to know whether the SD occurred before or after the psychosocial, marital or relational problems.[7–10] Substance use is also associated with SD.[11]

### 2.3.2 **Sexual Dysfunction Symptoms**

The classification of SD can be a complication when measuring the symptoms. The duration of symptoms differs between SD assessments tools and some clinical criteria, for example, DSM-5 duration is six months while FSFI[12] and IIEF[13] is four weeks. Sexual distress must also be present to conclude the diagnosis. Sexual distress is the associated frustration, anxiety, and worry regarding one's sexual activity, with a possible effect on emotional, social and mental wellbeing.[14] Although sexual distress is a diagnostic criteria for SD disorder, it is in fact not a good predictor of the physical symptoms or sexual challenges women may experience.[15] Using different criteria, SD is classified in the DSM-5 as female and male dysfunctions, substance induced dysfunction and other sexual dysfunctions.[16] Female SD consists of sexual interest/arousal disorder, orgasmic and genito-pelvic pain/penetration disorder.[16] Male SD consists of erectile disorder, premature ejaculation, delayed ejaculation and male hypoactive sexual desire disorder.[16] Male dyspareunia and male sexual pain were not listed in the DSM-5.[16] Sexual aversion disorder was kept in the category of 'other dysfunctions', and SD due to a general medical condition, was deleted; however, substance- or medication-induced SD was not changed.[16]

For the purpose of this study, the definitions of two questionnaires[12,13] were used for the assessment of SD:

- Male SD, according to the International Index of Erectile Function (IIEF)[13] includes challenges for the last four weeks with the following:
  - Sexual activity, including intercourse, caressing, foreplay, and masturbation.
  - Sexual intercourse, which is sexual penetration of the partner.
  - Sexual stimulation, including, for example, foreplay and erotic pictures.
  - Ejaculation, which is the ejection of semen from the penis (or the feeling of this).
  - Orgasm, which is the fulfilment or climax following sexual stimulation or intercourse.

- Female SD according to the Female Sexual Function Index (FSFI)[12] includes challenges for the last four weeks with:
  - Sexual activity, including caressing, foreplay, masturbation, and vaginal intercourse.
  - Sexual intercourse, defined as penile penetration (entry) of the vagina.
  - Sexual stimulation, including situations like foreplay with a partner, self-stimulation (masturbation), or sexual fantasy.

- Sexual desire or interest, which is a feeling that includes wanting to have a sexual experience, feeling receptive to a partner's sexual initiation, and thinking or fantasizing about having sex.
- Sexual arousal, which is a feeling that includes both physical and mental aspects of sexual excitement. It may include feelings of warmth or tingling in the genitals, lubrication (wetness), or muscle contractions.

Although SD was measured in this study, it was the existence of the symptoms that was the concern in this study and not the diagnosis of SD. The questionnaires could not confirm an SD disorder but confirmed the presence and seriousness of the symptoms in the patient participants. It assessed symptoms they could disclose if asked or presented with in the consultation.

## 2.4 PREVALENCE OF SEXUAL DYSFUNCTION

One of the questions at the onset of this study, was how common is SD that it warrants being researched? Large scale epidemiologic studies on SD are rare, and therefore researchers rely mainly on data from smaller studies. Prevalence of SD must be interpreted with caution as the duration of symptoms can be reactional and, depending on which criteria or instrument the researcher uses, give different results.[15,17] Evidence-based practices are mainly limited to expert opinions. It is then also common to have recent systematic and meta-analysis reviews, including studies as far back as 1999. Prevalence studies of SD are often linked to comorbidities, e.g., depression, HIV, auto-immune conditions, cancer, or menopause. Alternatively, they are linked to age-specific groups, for example, 45 to 60 years, or to a specific dysfunction such as, for example, erectile dysfunction (ED). Some of the larger surveys reflected poor sampling strategies, e.g., telephone surveys (often landlines and not mobile phones) in Africa where a large proportion of the population did not have access to telephones.[18] A large number of studies on SD originate in Asia, and although they may produce interesting results, there are concerns regarding the evidence-based value thereof due to sporadic methodological flaws.[19] Comparison between studies is complicated by different methodologies.[20] Two hundred multi-disciplinary experts from urology and sexual medicine associations from 60 countries emphasized the fact that different tools, which did not always subscribe to the same standard definitions for male and female dysfunction, are often used.[21] These limitations can explain the variance in prevalence of SD amongst studies; it also complicates comparisons between studies. It is with this caution in mind that the prevalence of SD is discussed below.

### 2.4.1 **Overall Sexual Functioning**

Many articles described over the years the proportion of patients living with SD often linking it with specific illnesses. Only nine articles presenting data on SD not linked with a specific condition were published since 2017 (Table 2.1).

Lewis *et al.*[21] postulated that, although the prevalence of global SD is relative, we can safely say that as age increases, SD increases. It is also estimated that 40% to 45% of women and 20% to 30% of men over the age of 18 years have at least one manifested form of SD.[21] Lewis *et al.*[21] expressed similar concerns on the variation of available studies and associated prevalence. What is interesting, is the secondary data analysis of Heiden-Rootes *et al.*[22], which had a significantly lower SD prevalence than other studies. Heiden-Rootes *et al.*[22] concluded that SD may be overlooked in primary care, as the assumption is that if it is not documented, it was not screened or diagnosed.

**Table 2.2: Summary of Published Studies Describing the Prevalence of Sexual Dysfunction in the General Population from 2017 to Date**

| Author | Year | Type of study | Sample size | Characteristics of participants | SD result |
|---|---|---|---|---|---|
| Heiden-Rootes *et al.*[22] | 2017 | Secondary data from primary care database | 12 097 men; 18 530 women | Adult men: mean age 46.8 years. Adult women: mean age 46.6 years | 13.5% of men; 1.0% of women |
| Wolpe *et al.*[23] | 2017 | Systematic review and meta-analysis | 20 studies | Women between 17 and 60 years in Brazil | 13.3% to 79.3% |
| Ghiasi *et al*.[24] | 2018 | Systematic review and meta-analysis | 7 studies | 4 032 reproductive-age women in Iran | 52% (95% CI: 39-66%) |
| Kessler *et al.*[25] | 2019 | Systematic review and meta-analysis | 41 studies | Men of different age groups that varied between 18 and 70 years | ED was 3-76.5% |
| Mohammadian & Dolatshahi[26] | 2019 | Cross-sectional | 561 women. 568 men | Men and women aged 19-50 in Teheran | 77.6% of women; 35.6% of men |
| Briken *et al*.[27] | 2020 | Doubly stratified random sample of data from residence registration offices | 4 955 | Data from men and women across Germany | 33.4% in men (95% CI:31.0; 35.9). 45.7% in women (95%CI:43.0; 48.4) |
| Geerkens *et al*.[28] | 2020 | Systematic review | 76 studies | Middle-aged and older men | Between 12% and 51.6% for men aged ≥60 years; between 20% and 65.9% for men aged ≥70 years; between 40% and 82.4% for men aged ≥80 years |
| Yilmaz *et al.*[29] | 2020 | Cross-sectional | 1 216 | Married women aged 15–49 in Turkey | 45% |
| Zheng *et al*.[30] | 2020 | Cross-sectional | 6 986 | Women aged 18–39 in Australia | Sexually related personal distress was 50.2% and 20.6% had at least one sexual disorder |

### 2.4.2 Sexual Dysfunction by Gender

The literature review suggested that women frequently live with desire and arousal challenges, while men present more often with premature ejaculation and ED problems.[31] We also know that women more often experience multiple types of SD compared to men.[31] Sexual dysfunction also presents in all age categories. A sample of 187 college aged women at the University of Santa Cruz do Sul, Brazil, suggested that 23% lived with SD, mainly dyspareunia, and 83.4% of this group, experienced sexual distress.[32] A study of 566 child bearing aged women in Nairobi, Kenya, suggested that 51.5% of the women who used hormonal contraceptives experienced SD.[33] A systematic review of Brazilian studies suggested that SD in Brazilian women varied between 13% and 79%, with sexual desire challenges between 11% and 75%.[23] A recent population based study in China found 30% of 25 446 women between 20 to 70 years had overall SD.[34] Nearly 22% of women in this Chinese study lived with low desire and just as many with arousal disorder, while approximately 28% struggled with lubrication challenges. Comorbidities such as cancer, pelvic inflammatory disease and pelvic organ prolapse increased the risk of SD significantly.[34]

There is no large epidemiological data for South Africa on SD. Two studies in South Africa focussing on ED found that the prevalence of ED for 521 men older than 18 years living in the KwaZulu-Natal Province was 65%.[52] Whereas, 97% of 191 men living with diabetes in Gauteng presented with ED.[35,36] According to Boa[37], about 43% of women in South Africa present with one or more SD symptoms in their lifetime.

### 2.4.3 Prevalence of SD in Chronic Illness

There are many studies on SD associated with chronic conditions such as, for example, irritable bowel syndrome, multiple sclerosis, stroke, diabetes, hypertension, and cancer. Sexual dysfunction is often associated with, but not limited to, disease or illness. Cultural perceptions around sex and sexuality, being religious, psychosocial stress, abortion, female genital mutilation, sexual abuse and mental health are all associated with sexual dysfunction.[38–40] Sexual dysfunction is, however, more often diagnosed during advancing age and illness, and sometimes when patients complain about medication side effects.[41–43] It is this aspect of SD that forms the basis for this study. The researcher is aware that one cannot exclude the impact of psychosocial factors or even suicide ideation, where patients feel trapped because of living with a chronic illness[44], but did not explore these elements in this study. The study was focused on diabetes and hypertension as these are independent risks factor for SD due to the pathophysiology of the conditions affecting the vascular system causing endothelial dysfunction and associated atherosclerosis and/or vascular insufficiency

in genital tissue, subclinical inflammation, as well as complications to the hormonal and neurological systems.[45]

Table 2.2 is a summary of ten studies published since 2017, reporting on SD in individuals living with diabetes and/or hypertension. Looking at illness and SD, a meta-analysis of 25 studies involving 3 892 adult women between 18 and 70 years of age living with diabetes concluded that 69% of women lived with SD.[46] A man living with diabetes has a 3.0 to 3.5 fold higher risk of developing ED compared to a non-diabetic man.[47–49] In a meta-analysis of 26 studies involving 3 168 women with diabetes and 2 823 without diabetes, the women with Type 1 diabetes were 2.27 times more likely to have SD than the control group and those with Type 2, were 2.49 times more likely.[50] More recently, a meta-analysis review of 25 studies involving 3 892 women between 18 and 70 years living with Type 2 diabetes, revealed that the prevalence of SD was on average 69%, with women in Iran at 94% and women in Italy at 17%.[51] In Nigeria and Tanzania, 72.5% and 55% of men, respectively, lived with ED.[52,53] A meta-analysis review of 13 studies in Africa (3 501 participants with diabetes), estimated the pooled evidence of ED at 71.45% (95% CI: 60.22–82.69).[54]

A study in Greece of 216 women with arterial hypertension and 201 normotensive women consulting at a hypertension clinic reported that 42% of the hypertensive women versus 19.4% of the normotensive women had SD.[55] A small study in Brazil with 54 hypertensive and 54 normotensive women suggested that 63% women with hypertension versus 39% normotensive (p = 0,02) lived with SD.[56] In Finland, researchers found that 52% of 665 men with at least one cardiovascular factor but not previously diagnosed with hypertension had SD, and there was a U-shape association between ED and diastolic blood pressure.[57] When 101 men with hypertension were compared with 101 normotensive men in Nigeria, 75% of the men with hypertension had ED versus 57% of normotensive men (p = 007).[58] One study in primary care in South Africa postulated that about 31% of men would experience overall SD in their lifetime.[59]

**Table 2.3: Summary of Prevalence of Sexual Dysfunction in Diabetes and Hypertension from 2017 to Date**

| Author | Year | Type of study | Sample size | Characteristics of participants | SD Result |
|---|---|---|---|---|---|
| Bak *et al.*[60] | 2017 | Cross-sectional | 215 | 114 women and 101 men with type 2 diabetes and 183 controls aged 40-60 years in Poland | 68% of women with diabetes vs 17% of controls ($p < 0.001$) ED in 82% men with diabetes and 41% of the controls ($p < 0.001$) |
| Seid *et al.*[61] | 2017 | Cross-sectional | 249 | Male diabetic patients 19-83 years | ED 69.9% |
| Boeri *et al.*[62] | 2018 | Cross-sectional | 372 | Consecutively sampled men in Italy | 1 in 5 men with new-onset ED was suggestive of pre-diabetes |
| Asefa *et al.*[63] | 2019 | Cross-sectional | 398 | Men and women with diabetes > 18 years in Ethiopia | 53.3% (95% CI: 48.35–58.25%). Men: 52% (95% CI: 46–58%). Women: 56.6% (95% CI: 47–64%) |
| Calmasini *et al*.[64] | 2019 | Review | Not applicable | Inflammation in obesity, diabetes, and hypertension | ED in men with diabetes 35 to 90%. FSD in women with diabetes 12 to 88% |
| Choy *et al.*[65] | 2019 | Systematic review and meta-analysis | 31 articles | 18 260 women with hypertension compared with the normotensive group | Hypertensive group compared to normotensive group OR 2.789 (95% CI = 1.452–5.357) |
| Rahmanian *et al.*[51] | 2019 | Systematic review and meta-analysis | 25 studies | 3 892 women with Type 2 diabetes aged 18 -70 years | 68.6% (95% CI 61.1–75.3%) |
| Santana *et al.*[66] | 2019 | Systematic review and meta-analysis | 11 studies | 1 057 hypertensive and 715 normotensive women | SD 14.1 to 90.1% |
| Kumar *et al.*[67] | 2020 | Case control | 424 | 212 men with hypertension and control 212 normotensive men aged 43-67years in Pakistan | ED 61.79%, compared to 20.28% in normotensive group |
| Paningbatan *et al*.[68] | 2020 | Cross-sectional | 75 | Premenopausal women with type 2 diabetes aged 38 to 49 years old in the Philippines | 72% |

Sexual dysfunction is undeniably associated with diabetes and hypertension, but not limited to being caused by the disease itself, as the aetiology of SD includes psychosocial and socio-cultural factors, dependencies, and sexual trauma. Patients consult at primary care clinics daily, and it is during this patient-doctor encounter that SD can be elicited, by means of SHT. In focusing the study, only chronic disease as a cause for SD was considered for this project.

## 2.5 CHRONIC ILLNESS AND THE ROUTINE CONSULTATION

### 2.5.1 What is Chronic Disease and Illness?

Mash *et al.*[69] found in a prospective survey across four provinces in South Africa that primary care consultations are dominated by non-communicable diseases, mostly chronic diseases. Before the routine consultation for chronic illness is explored, it is important to define chronic disease and illness. The WHO named cardiovascular diseases (CVD), cancer, chronic obstructive pulmonary disease and Type 2 diabetes as the four most important chronic illnesses that are linked by "common and preventable biological risk factors, notably high blood pressure, high blood cholesterol and overweight, and by related major behavioural risk factors: unhealthy diet, physical inactivity and tobacco use".[70] Chronic disease is a term that is used loosely; with previous studies suggesting that it must be a disease lasting longer than three months for which there is no cure.[71] In South Africa, the focus is mainly on non-communicable diseases such as hypertension, diabetes and others lasting six months or longer.[72,73] The definition was also expanded to include HIV.[72] Disease is a biomedical classification, and the illness is the patient's personal experience of living with the specific chronic condition.[74] It is then the concept of illness that calls for whole person medicine, and the response of the doctor should be to take responsibility over time for the patient's care across many disease episodes.[75] Couper[73] highlights consultation habits which are important in the management of chronic illness, such as commitment, continuity, collaboration, and comprehension. It boils down to the doctor and the patient taking co-responsibility for the exchange of information to understand the illness, the complications and management thereof, and mutual decision making, where both strive for maintenance and preventative care. Furthermore, the relationship should be based on a commitment that allows the patient to trust the doctor to discuss sensitive matters and to share fears and concerns.[73] Chronic illness thus demands extra dedication to look at the patient comprehensively and anticipate outcomes, to ensure optimal chronic care. It is this nature of chronic disease and illness that differentiates the routine consultation for chronic illness from the acute care consultation.

### 2.5.2 Routine Consultation for Chronic Illness

A large number of doctors follow a traditional medical consultation model when dealing with an acute presenting complaint; the history of the presenting complaint, past medical history (if not on file as yet), family history (usually limited to genetic predispositions or infectious disease), social history (mainly lifestyle such as drinking and smoking habits), drug (primarily prescription medication) and allergy history, followed by a review of body systems e.g., reproductive and digestive systems.[76] There is predictability in this process. The doctor takes the lead with the opening of the discussion, then explores the attributes of the presenting complaint, examines the patient if required, makes or confirms the diagnosis, prescribes treatment, gives advice, and then terminates the consultation.[75,77] When it comes to the routine

consultation, the maintenance of the management strategy takes priority as the patient may have adherence difficulties, challenges meeting control targets, and it also requires screening for complications and co-morbidities.[78] The presenting complaint in a routine consultation differs from an acute consultation as the reason for the encounter can vary, such as administrative requirements, a repeat script, a new complaint or a solicitation of the real, covert or secondary problem.[79] It is thus important to know that chronic routine consultations are opportunities to delve a little deeper because it can save a lot of time and potential suffering to address a problem before it has escalated.[73]

It is then the exploration of new complaints or screening for complications, which makes the chronic routine consultation an ideal opportunity to elicit SD. Other opportunities to screen for SD are menopause or andropause related visits, ante-natal or post-partum visits, Pap-smear or contraceptive sessions, or infertility consultations.[80] Should a doctor follow a patient-centred approach, the routine consultation has the potential to be a triaxial interaction incorporating biopsychosocial factors, responding to and reflecting on cues, facilitating a mutual understanding and creating the opportunity to screen for multimorbidity, which includes SD.[75,76] Common chronic illness and SD are closely associated in primary care and SD can go underdiagnosed if not specifically screened for.[22] As sexual functioning or dysfunction are significant health indicators, there is an expectation that it will be screened for during the routine consultation as part of the tertiary and quaternary prevention of disease.

## 2.6 SEXUAL HISTORY TAKING

### 2.6.1 The Importance of Sexual History Taking

Sexual dysfunction, if not due to psychosocial trauma or distress, is considered a biomarker of complications of chronic disease. In addition to the pathophysiology of SD already mentioned above, the association of atherosclerosis and cardiovascular events with the onset of SD, specifically ED, is well described.[81,82] Sexual dysfunction can thus be an early indicator that a patient experiences circulatory or neurological complications of disease. The opposite is also true; when a patient presents with SD, it is important to explore other co-morbidities, like diabetes and depression. There is also evidence that the management of SD can alleviate the burden of other diseases; for example, generalized endothelial improvement with the use of sildenafil and tadalafil usually prescribed for ED and benign prostatic hyperplasia; tadalafil also improves the symptoms of benign prostatic hyperplasia, and phosphodiesterase-5 inhibitors can decrease depression and anxiety.[83]

The prevalence of a condition often dictates health care priorities and screening strategies. When comparing the prevalence of SD with the prevalence of STI in Africa or South Africa (approximately 6.6% for gonorrhoea in women and 3.5% in men, or 14.7% for chlamydia in

women and 6.0% in men[84]), it is difficult to comprehend that SD is not a priority in terms of burden of disease. However, when comparing poor health outcomes of reproductive health and sexually transmitted infections such as a mortality rate of 50% for HPV infections and adverse birth outcomes including stillbirth and neonatal death,[85] then SD may seem not that important. However, the morbidity and mortality issues distract from the importance of quality of life for the patient and the couple.[86] Using semi-structured interviews, Gott and Hincliff[87] found that middle-aged and later life individuals with partners rated sex as 'very' or 'extremely' important. Stephenson and Meston[88] suggested that sexual wellbeing was related to life satisfaction, not only cross-sectionally but also over time. The poor quality of life consequences of SD cannot be quantified, but the cost to wellbeing and happiness is not set off against health outcomes.

There is evidence that SD has direct costs to the health care system and economic impact due to loss of productivity.[83] We can, however, not calculate the cost of broken relationships, divorce, interpersonal conflict and the loss of self-esteem or poor quality of life due to SD.[89–93] We do not have an idea of the personal cost or indirect cost to health care, where patients resorted to alternative and often untested substances or potions in a desperate attempt to obtain help.[90,93] However, there is evidence that a person's satisfaction with their sex life, as well as their perception of the quality of sex, is a good quality of life indicator.[94]

### 2.6.2 The Scope of Sexual History Taking for Sexual Dysfunction

#### 2.6.2.1 Introducing sexual dysfunction in the consultation – the first step to history taking

The key to history taking for SD is in how the doctor introduces the topic in the privacy of the consultation room. In the first place, awareness of the risk of SD is needed, which implies training and knowledge on SD.[95–98] Communication follows awareness when the doctor needs to legitimize and normalize the screening as part of routine history taking.[99,100] Communication is an important aspect in initiating the discussion and talking about sexual matters and cannot be ignored when dealing with the consultation and SHT, however, the broader concept of health communication dealing with language, disseminating health information and improving health literacy was not the within the scope of this study. There are different models and the PLISSIT model is referred to in Chapter 5. Keller and Carroll[101] suggested the evidence based 4E's model for effective doctor-patient communication, namely "Engage, Empathize, Educate and Enlist." Rapport is important in establishing a relationship, which by itself improves the sharing of sensitive information. Engaging and empathy formed the key factors in doctor-patient communication to build rapport.[102] Even minor actions such as greeting a patient, using her/his name and listening attentively, good eye contact, and not showing or expressing surprise, mortification or condemnation, will facilitate this patient-doctor engagement when discussing health matters or sexual

challenges.[103–106] Being straightforward and sensitive by explaining the need for the doctor to ask questions on sexual history and allowing the patient to ask questions first can also ease the process for the patient.[107] The 'educate' and 'enlist' aspects link with patient health education and prevention strategies, like screening for SD where a patient is at risk. When the patient is empowered with knowledge on their disease and how complications can manifest, collaboration in terms of management can start. Open-ended questions and genuine interest in the patient's wellbeing contribute to effective communication.[77] Specialists in SHT agree that effective culture sensitive communication is the first step in exploring SD and suggest a question like "what concerns or questions do you have about your sexual health?" to initiate the discussion.[99,108–110]

#### 2.6.2.2 Take a full sexual history

Whether patients raise a sexual functioning concern themselves or in response to the doctor probing for it, detailed SHT should follow. This includes sexual, medical and psychosocial history taking, physical examination, and routine or specific investigations.[100,111] A history for SD is always taken with the general health history as a foundation; similarly, reproductive and sexually transmitted infection history is not divorced from the SD history. This is to rule out a sexual disorder secondary to an underlying medical condition, such as depression, thyroid disease, and androgen insufficiency that could cause decreased desire; diabetes, multiple sclerosis, spinal cord injuries or any other neurologic disease which can lead to arousal and orgasm challenges; and cardiovascular disease and oestrogen deficiency that can cause impaired arousal.[99] A history of prescribed medications is essential as some diuretics and antihypertensive medication, antidepressants and anxiolytics, anti-epilepsy drugs, antihistamines, non-steroidal and anti-inflammatory drugs, Histamine $H_2$-receptor antagonists, and muscle relaxants can all cause or lead to SD.[99] Regular use or abuse of recreational substances such as alcohol, amphetamines, barbiturates, cocaine, marijuana, methadone, nicotine and opiates can cause or lead to SD.[11]

When talking about the components of sexual history, most professionals will immediately think of reproductive health or sexually transmitted infections. Eight experts in sexual health medicine who carried out a Delphi study in Australia and New Zealand on core content for a sexual history, suggested it covers current and past sexual relationships; last sexual contact; use of condoms; the history of STI(s) and HIV; vaccination against Hepatitis B; and injection of drugs.[112] Sex with a person from outside the country was also perceived as a good question to determine risks.[112] They also included specific questions for men and women. Questions about Pap smear, last menstrual period and contraceptives were considered core questions for women. There was no reference in this study to sexual functioning, satisfaction or even expectations. Other professionals use the 5Ps as the guide for SHT. The "5P's" for

SHT refer to partners, sexual practices, prevention of STI and pregnancy, and history of STI.[113] Lloyd and Bor[114] and Palaiodimos *et al.*[115] follow basically the same pattern in SHT. Rubin *et al.*[113] adds gender identity and sexual orientation challenges and considers a more comprehensive sexual health history which includes satisfaction and sexual concerns as part of sexual wellness.

Besides the patient's views and perceptions of the symptoms they are experiencing, it is important to establish a timeline for the complaint or SD symptom as well the context in which it manifests, e.g., relationship dynamics or stressors. The components of the dysfunction, namely, desire, arousal, orgasm and pain for females especially, must be explored in terms of their current status, previous functioning, time and manner of onset and duration as well as how they changed over time.[111] The doctor must distinguish between a physical or real manifestation of the symptom and whether it is a concern about normalcy or "measuring up to" unrealistic expectations. Concerns about sexual identity or orientation issues need to be explored. Incompatibility issues or different levels of desire, reproductive concerns and sexual practices, sexual trauma or abuse cannot be ignored. Relationship quality, culture, religion, value system, or perceptions about sex and sexuality, open marriages, and the diversity of sexual practices and paraphilias must not be omitted in history. As desire is a cognitive component in the sexual response, any of these above mentioned factors can inhibit desire.[99,111] The doctor then needs to decide if they are dealing with a sexual concern, a sexual challenge or a sexual disorder. If the doctor suspects a disorder, it is important to know the criteria for the different sexual disorders as defined by the DSM-5 and ICD-10 to diagnose the problem. The management will depend on the diagnosis, the aetiology, co-morbidities, personal, social, professional and health care resources.

### 2.6.3 Barriers To and Facilitators of Sexual History Taking

Studies on the barriers to and facilitators of sexual history taking are few. It seems that over the years, the barriers did not change, and new studies kept exploring the same variables. Furthermore, most of the reviewed studies were mail or telephone surveys. The challenge is that these questionnaire-based studies tend to use similar barrier items as were used in previous studies, and thus very little new information was forthcoming. On the other hand, one observational study and a few other qualitative studies presented some unique information which will be presented in this section. Overall, previous studies suggest that doctors seldom screen for sexual challenges, whether it is sexual risk behaviour or dysfunction, and that the barriers did not really change over time.

Generally, doctors more often avoid the Lesbian, Gay, Bisexual, Transgender, Queer, Questioning, Intersex, Asexual, Allies and Pansexual (LGBTQQIAAP) persons' challenges

and often discriminate against them.[116] Sexual orientation and SD screening are two topics that do not only challenge their knowledge and skill but also their value-based opinions or socio-cultural perspectives of sexuality.[117–119] Mulligan and Heath[120] suggested that non-normative non-heterosexual women experience higher rates of discrimination and are more at risk of adverse health outcomes. Research also suggested that heterosexual health care workers have implicit preferences when it comes to patients and this lead to sexual prejudice against minority groups, which inhibits their help-seeking for sexual problems.[121] Despite South Africa's Constitution acknowledging and protecting sexual orientation variations, health care workers still discriminate and even insult patients from these minority groups.[122] Doctors agree that non-hetero consultations are difficult as they lack the appropriate language or vocabulary to have a meaningful discussion without giving any offence.[117] There is also an opinion that doctors are not informed about sexual minorities and yet that they must initiate non-judgemental discussions on sexual challenges regardless of partnering.[123]

Doctors seldom ask about sexual challenges, and when they do, they often fail to cover all the components of sexual history.[124–126] In a global study of patients in 29 countries with 27 500 participants, of whom 50% experienced at least one SD symptom, only 9% were asked by their doctors about sexual functioning in the previous three years.[127] In the USA, only 354 out of 1 550 (23%) Iranian-American doctors attempted SHT during consultations because they either did not have the knowledge or had value hesitancy.[128] Studies from California, Korea, Malaysia, Canada and other countries reported that non-screening for sexual challenges during consultations, follow up consultations or routine health checks varied between 28.2% and 91%.[126,127,129,130–136] Closer to home, 97% of a sample of 247 men with diabetes in Ethiopia were not screened for SD or ED.[61]

Two common barriers mentioned for doctors failing to take a sexual history were time constraints, which included too many patients to consult, and feeling uncomfortable to address sexual challenges.[128,129,133,137–139] The discomfort is often related to barriers like sex and age differences and lack of knowledge or insufficient training. The lack of training and awareness is also associated with non-screening of SD, which included underestimating the prevalence of SD.[37,41,133,136,137,140–144] The lack of training was mentioned as a shortcoming of both undergraduate and postgraduate curricula.[145,146] Insufficient training can contribute to a lack of knowledge about the symptoms of sexual dysfunction and its management options, but this does not prevent the quest for continuous learning. Muhamad *et al.*[147] found that the doctor's professional attitude played a major role in SHT when the doctor thought they had received insufficient training or lacked knowledge. If the doctor was interested, they would try to gain a patient's trust to succeed in taking the sexual history; the doctors who had a low interest or indifference about sexual health, were also reluctant to find solutions if they

struggled to engage with a patient.[147] Sex or gender and age incongruence as barriers to SHT were also mentioned in a few studies.[143,148–151] Douglas *et al.*[149] found that in Canada 24.5% of the 286 participants did not want a (young) medical student to take a history, whilst 63.6% of the women under 30 years, preferred a female doctor. Muhamad *et al.*[147] highlighted professionalism and person-centredness as making a difference in history taking. Douglas *et al.*[149] observed that communication improved irrespective of gender if the doctor acknowledged and explored the patient's concerns (95% and 92%, respectively).

Some interesting results came from qualitative studies. In an observational study that included 79 patient encounters with homeless people, no SHT was observed.[152] The researcher, however, observed a few barriers to SHT such as, doctors not picking up on verbal cues from patients; the seating position that is not conducive for effective communication; poor eye contact; pre-occupation with the laptop and handwritten note-taking; as well as additional people in the consultation room (which included the researcher, and interpreters amongst others).[152] Muhamad *et al.*[147] identified the socio-cultural taboos, lack of training, personal embarrassment (fear to converse freely or to embarrass self or the patient), and unfavourable clinic environment (no privacy, lack of medication and limited time for screening) as barriers during in-depth face-to-face interviews with 21 family physicians in Malaysia. These doctors also considered female SD as a low priority; only if it were the presenting or chief complaint would they have considered it a priority, especially as they had only five to ten minutes per patient for a consultation. What was novel in this study was that the researchers identified that doctors who reflected on their lack of knowledge implemented self-help strategies and displayed professionalism which did not occur with the uninformed ones.[147] Awareness and continuous development seem to be the key to change and improve SHT. Hirooka and Lapp[144] also considered a lack of awareness as a major barrier to SHT. Other predictors of SHT identified were previous communication training, liberal or more non-judgemental sexual attitudes, and being a medical specialist.[153] A qualitative analysis was conducted on the health care database information in the United Kingdom and revealed 19 themes with the common time and embarrassment barriers, but also noteworthy were the black and ethnic minority groups, non-heterosexual groups and intellectual disabilities.[154]

Doctors are reluctant to initiate SHT.[41] Patients, however, also failed in help-seeking for sexual challenges despite more than 91% of them indicating that they would like to discuss their sexual problems with doctors.[132,155] In a US survey, 90% of men older than 45 years did not seek help for SD.[156] In an unrelated survey, 40% of women had never spoken to their doctors about sexual challenges, despite 54% of them admitting that they would have liked to.[157] Besides sex being a taboo topic, patients perceived doctors as not having time to listen to them; they felt rejected when they initiated the discussion and often did not know SD was

an illness or that therapies to help them were available.[139,158,159] In a Swedish qualitative study, none of the 33 women living with diabetes were ever informed how diabetes could influence sexual performance, and only one woman was asked about sexual challenges.[140] This Swedish study also reported that patients did not think of talking to their doctors about their challenges because they perceived them to be rushed and stressed, they did not think the doctor could do anything about it, there was no privacy and they were hoping the doctor would raise it. Kingsberg[136] postulated that 68% of patients feared embarrassment and 71% feared that doctors would dismiss their concerns and therefore did not discuss their concerns with their doctors. Gott and Hincliff[140] in their interviews with patients in Sheffield, UK, determined that besides the sex and age of the doctor that played a role, some patients did not think their SD was too serious, and they did not know how to initiate such a discussion. A study in Iran, reported an exceptionally high rate of help seeking for sexual challenges. The study had 1 540 women of whom 51% presented with SD symptoms and 61% of them consulted; 57% were satisfied that they received help.[160] It was however not established whether this perceived help was appropriate and evidence based. Older people especially struggle to ask for help as they are perceived as being asexual, too old to have or enjoy sex, and are often unaware of how their illness influences their sexual response.[41,161–163] This stereotyping caused geriatric patients to fear that they would be ridiculed or embarrassed.[131,164] Andrews and Piterman[165] reported that elderly men often considered SD as normal ageing and were not aware of treatment options; they also feared a negative response when raising SD concerns with the doctor.

Several of the barriers to SHT are anchored in socio-cultural and value-based perceptions of what is the right thing to do, to ask or to tell. Doctors and patients experience it. Patients should rightfully expect that the doctor, as a professional, would have the knowledge, skill, and confidence to bridge these barriers and help them. It is then, in the light of this background to the importance of, and lack of SHT, that this study was designed.

## 2.7 PHILOSOPHICAL ASSUMPTIONS AND INTERPRETIVE FRAMEWORK

### 2.7.1 Understanding the Need for and Nature of the Theoretical Framework

In conducting any scientific research project, the researcher must declare the theoretical framework or lens for interpretation to legitimize the findings even if these frameworks often fall on a continuum in terms of their hypothesized links to guide research.[166] Johnson *et al.*[167] explained that there is an interrelationship between the methodological and philosophical paradigms, theory and research methods, and this makes it difficult in grounded theory research to be totally on the outside looking into concepts that already exist in their own right. It is impossible to ignore previous knowledge and personal experiences, as well as the overload of information available online.

When the research proposal for this study was developed, a research framework in the form of a flow diagram was required by the Faculty of Health Sciences. This study set out to use a grounded theory approach to understand a process for SHT in primary care routine consultations. The initial perception was that a structured theoretical framework might force certain preconceived ideas on the findings of this grounded theory research and that the theory must emerge from the data.[168,169] Timonen *et al.*[170] argued that grounded theory must produce a single elaborated theory, a myth, and emphasized that the researcher is not a "clean slate" and as such, they should rather declare their position. Although the research proposal did not plan for a framework, it was not too late or inappropriate to find a framework for this study. [171,172] During the data collection and analysis process which happened, in a way, simultaneously, the necessity for a theoretical framework emerged. Two things necessitated the theoretical framework, namely the memoing notes (see Paragraph 2.8) and the volume of interpreted data. The memoing highlighted the researcher's subjective perspectives based on patient comments and observations that influenced the researcher's thinking and a specific theoretical lens for analysis could keep the researcher's focus on the bigger picture. Additionally, as the researcher did not have a specific framework during the proposal phase, with a vast quantity of data collected, there was a need for a framework that could assist to categorise the interpreted data in a more meaningful way.

The study set out to describe the SHT process and associated factors and skills required for successful disclosure of sexual health issues during a clinical encounter with a doctor in primary health care settings in the North West Province, South Africa. Medicine is both a science and an art where events shape each other, and explanations are time and context specific. We learn via interaction with others – either direct learning or observation and mirroring. As a lecturer in family medicine, the researcher identified with Dennick's view[173] that clinical reasoning, pattern recognition and a dose of intuition form part of the cognitive skill a doctor or therapist needs. The meaning of our socio-emotional, socio-cultural, and physical environment, as well as learning change over time and how we interact with it and others, and communicate it to each other, is only a moment in time.

The literature suggested that a researcher chooses a theoretical framework by identifying personal beliefs; considering several theories that links with their epistemological values; defining why the theory is important for the study and finding theoretical support for the theory in the literature; reviewing how others have applied it; finding arguments that apposed the selected theory; ensuring that the theory connects to the study problem and using it as a blueprint for interpretating the study findings.[169,174] Various frameworks could link with the researcher's values. These included phenomenology and interactionism to explain the social interaction between a doctor and a patient to understand the process of SHT.

Phenomenology[175,176] focussed more on the person's lived experiences with or within a context. As the health setting plays a role in the triad of SHT, it would have been difficult to assess all the complex bi-directional interactions from only a first-person's point of view. Therefore, this study was not concerned solely in how the doctor and patient make sense of their experiences in the interaction process of SHT. Interactionism[176–179] on the other hand, respects the 'human as a biological organism with a mind and a self' and lends itself to the observation of these verbal and non-verbal interactions and to interviewing role-players if necessary. The social meanings attributed to these various elements that contributed to the nature of the patient-doctor interactions are important predictors of human behaviour and thus practice.[178] This was then also a strong component of the planned project. On the negative side, the interactionists seek a more objective or empirical outcome.

Systems theory was also a possibility as there is evidence of its effectiveness in managing the interrelatedness of the elements in the complex health care system that relies on linear behaviour and role-based tasks.[180] Systems thinking is linked to quality improvement or upgrading care, e.g., the nursing, administration and medicine triad.[181] The consultation and SHT process is a hierarchy of very dynamic interactions which cannot be limited or constrained by linear or predictable roles or tasks, although certain elements fit the framework of identifiable systems.[182] When family medicine was a young specialist discipline, boundaries and the scope of practice were established using systems theory.[183] As the information in the input increases linearly in health systems, the complexity of the system increased exponentially. Katerndahl *et al.*[184] defined the complexity in family medicine in an editorial as "complexity of each input/output are defined as the mean input/output quantity per clinical encounter weighted by its inter-encounter diversity (range of possibilities used) and variability (visit-to-visit change)"; all dynamic and complex elements which may not fit the boundaries and tasks of the system theory only. Generalist care as well as the context in which it is practised, has developed since the conception of family medicine. The discipline expanded significantly, and family medicine care is now balanced by diversity, unpredictability and uncertainty where the boundaries of previously defined systems became fuzzy and the need for a new paradigm emerged.[182] The Normalization Process theory[185] was another potential theory that describes how individuals and groups invest and participate in the complex health care interventions. The theory focuses more on the implementation of the intervention in routine work, than the intervention itself.[186] When considering psychodynamic theories, constructivism again became an option. Social constructivism also aligns with the researcher's personal beliefs and values. Thus, this study builds on a social constructivist point of view.

### 2.7.2 Contextualising Social Constructionism and SHT

Social constructivism aligned more with the end goal of this study, and is also an education perspective and attempts to come to terms with the nature of reality.[187] Interpretivism/ constructivism in all its approaches from ethnography to phenomenology value the subjective experiences of humans.[187–189] Charmaz[190] was of the opinion that the "social constructivist approach encourages innovation; researchers can develop new understandings and novel theoretical interpretations…" (p. 398). The social context and the events occurring in life seldom have absolute truths, but not all facts are subjective either.[191] Reality or the belief about reality according to constructivism, has multiple truths and are constructions of the mind.[192] Social constructivism allows diverse points of view and critical thinking, but most of all, it constructs new knowledge without negating previous knowledge or socio-cultural influences.[193] If this social construct or reality is not perceived as part of a relativist perspective, it is compatible with grounded theory.[194] Venturing in SHT where the medical fraternity already had pre-existing knowledge, gave the researcher the opportunity to assess and evaluate an old concept in a creative manner.

### 2.7.3 Social Constructionism, Reality and SHT

Reality is shaped by the historical and cultural contexts which by itself is influenced by multiple individual realities.[192] These individual realities are derived from a network of schemas (mental representations) which are the consequence of the social construction of language, science, culture, ideology and religion.[195] Couldry and Hepp[196] referred to a mediated construction of reality where the digital revolution, including social media, added to the concept and experience of reality. Sexual history taking is a constructed reality based on historical and socio-cultural as well as medical influences and various role-players who bring their individual beliefs and truths to the consultation. As SHT is a complex phenomenon, previously presented in Figure 1.1, grounded theory within the social construction paradigm was the practical and flexible vehicle to study it. Important to explore is what the perceptions of the SHT reality are, and how it is/was constructed; there are certain truths and beliefs around what SHT must be, and how does this influence the people interacting with it or how does the social exchange in the interaction process influence it.[197]

Social construction of reality[198,199] considers the realm in which we function as complex levels of reality and how we function and interact with it, as a continuous negotiation of interpretations of what we are or experience.[200] Subjects such as the "self", individuals and groups are thus defined and shaped by experiences and interactions with other people and the environment. Over time these present themselves in a specific way or perceive their reality as unique or superior and shape others. Their objective and subjective reality is then considered by individuals as real or authentic, although it is at most a possibility. This

continuous mutual interaction and shaping becomes a routine and then a habit, which leads to concepts like routinisation and habitualisation in this theory.[194] This research study is about routine consultations and the exploration of habits regarding sexual history taking. Other concepts in this theory are externalization, objectivation/objectivization and internalization.[190] Objectivation is the process where an abstraction converts to an object or in which human activity becomes an external reality, which has two components, namely institutionalisation and legitimisation.[201] Institutionalisation is the routine use or repetition of actions through generations which is then perceived as the objective reality and it becomes legitimized by the norms, values, science and meaning we attach to it to justify its existence. Internalisation is when we experience or assume all these things as if from outside us, which make these subjective creations of people appear as objective reality. This collective understanding is then transferred through an extended socialization and re-socialisation process through life.[201] The entire process is anchored by communication and thus mediated and expressed through language in this process of reality construction.[194,200,201] The consultation in this research was defined and described through this process and became a symbol of the communicated reality construct experienced by the role players such as patients and health care professionals in primary care.

As health and disease are also socially constructed, medical science is based upon constructed knowledge limited to a biophysical reality and constitutes a system.[202] The experience and management of illness for both patient and doctor involves symbolic behaviour, health beliefs, values, and verbal and non-verbal communication.[203] All of this were handed down from one generation to the next through socialisation. These cultural constructs associated with symptoms or illness, normalised in the form of a consultation process as a structure to be the strategic interface between the cultural and social system and the individual with language or communication as the crucial bridge between these realities.

### 2.7.4 **Social Construction of Knowledge and SHT**

Knowledge does not exist by itself; it is constructed. It is dynamic and forever changing and with the technology rich environment in which it is retrieved or dispersed, the construction thereof is even more radical.[204] Schutz[205] suggested that knowledge is common sense on a relevant level of thought organisation based on constructions of abstractions, generalizations, formalizations and idealizations. Brown[206] claimed that knowledge is rooted in a direct or inter-subjective experience, filtered through complex ideal-typical perspectives.

Foucault most likely played the biggest role to naturalise knowledge on sexuality and created a distance between the philosophical reality and the scientific sexual reality, that caused also

changes in the historical sexual reality of power relations and values.[207] Culture shapes the knowledge of sex, but in turn, this knowledge also shapes the culture and experience of sexual culture.[208] This implies that the knowledge is existing around the SHT process, is shaping itself within the context of the consultation; giving it meaning and construct knowledge. Sex has its knowledge base in biology, but knowledge about gender is constructed by culture, power, race, and the media.[209] Similarly is the knowledge regarding SHT constructed by doctors, patients, culture, the health care system, and others – a multiplicity of perspectives and truths constructed and evolving over time.

### 2.7.5 Contextualising Constructivist grounded theory and SHT

It is important to acknowledge the multiplicity of perspectives and truths in grounded theory, and even more important, to understand the subjective interrelationship or interplay between role players and how they co-construct meaning.[192] Grounded theory as a study design has its roots in symbolic interactionism and constructivism[176], which was ideal for studying the multiplexity in SHT of subtle interaction dynamics, experiences and the measurable aspects of it. As analysis and data collection is a simultaneous process in grounded theory, the researcher reflected on the process and its role players who were captured in their own perceived realities of what is right and wrong and supposed to happen in the consultation, versus the reality they were co-constructing in the patient-doctor engagement process within the health care service structure. Also see section 2.9. After careful consideration, the researcher realised that she was looking at fixed or perceived realities (a social construct by itself[200]) in SHT, trying to make sense out of it and thus decided to use Social Construction of Reality of Berger and Luckman[198,199] in the Constructivism paradigm as the interpretive framework or lens for the results of this study. It is important to note that the researcher is aware that several theoretical paradigms or theories were appropriate. Future studies will have to consider these aspects and build on the foundation of this research study with its present limitations.

## 2.8 CONCEPTUAL FRAMEWORK

Sexual history taking occurs in a complex interactive context with multidirectional biopsychosocial influences of patient, doctor, and system. Socio-cultural and socio-economic factors do not only influence the patient, for example, gender roles in help seeking or access to health care, but also influence the patient-doctor interaction and relationship, as well as the way the health care setting operates.[210,211] The consultation process has its own dynamics based on knowledge, skill, time, communication and more. All this also does not escape socio-cultural and socio-economic influences, neither can sexual rights and individual sexual agendas be ignored. The assumption was that these factors influenced all the

patients, doctors and systems and were indirectly present in all the consultations and thus not included at this point in this study.

As a starting point, it was important to understand how these components played out in the consultation room. What might differ in consultations was the interaction dynamics based on the doctor's skill, knowledge, experience, clinical reasoning, and rapport building or establishing a patient-doctor relationship. To assess what facilitated SHT, the consultation process was deconstructed to answer the research questions (Figure 2.2).

Primarily the study observed the consultation dynamics and SHT between doctor and patient in a routine consultation with patients at risk of SD. Objective measures such as the patient characteristics and SD they lived with supplemented the consultation content and observations. Doctor characteristics and clinical reasoning were assessed using vignettes, for a better understanding of clinical judgement shown by doctors regarding engagement around SD. An important part of the interaction from the side of both patients and doctors was whether they would engage on sexual health topics; this was quantitatively and qualitatively explored. Setting characteristics such as seating and privacy were also considered. The research assistant and researcher recorded comprehensive fieldnotes where possible, focussing on observations of the rooms, spontaneous conversations or comments, and personal thoughts. Some incidents in the settings were captured as notes on the salient hierarchy present in these settings. Memos also kept a record of the research study and analytical process.

The consultation is deconstructed in interrelated, interactive, and measurable components important to the SHT process and its role players (Figure 2.1).

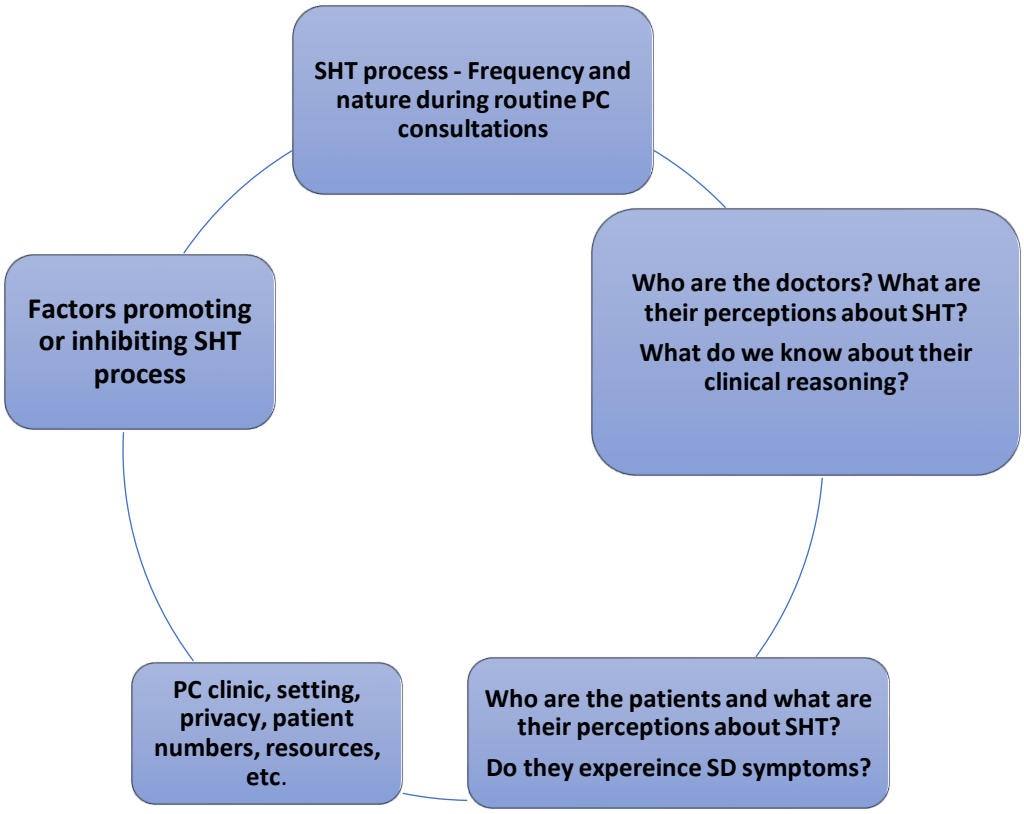


**Figure 2.1: Conceptual Framework of this Study Based on Research Questions**

## 2.9 CONCLUSION OF THE LITERATURE REVIEW

The field of work regarding SHT, and SD is limited. No longitudinal studies on SD and chronic illness could be identified, nor follow up studies. Researchers also did not do follow up studies in health care settings to determine if the previous study changed the doctor's awareness, level of knowledge or practice. There are a few cross-sectional studies using questionnaires and even fewer qualitative studies contributing to the field of SHT. These self-reporting methods rely on the doctor's recall, which can be biased and is unreliable. It is also unrealistic to assume that good intentions and knowledge are always translated into practice. The literature does not provide evidence of the nature and quality of SHT in practice except for one or two articles mentioning the scope of SHT reported by the doctors. All the studies included in this literature review concluded that SHT rarely happens in consultation if it is not a presenting complaint, and patients seldom succeed in asking and getting help. Apart from one small observational study, there is no evidence for what really happens in the consultation room between a patient and doctor. There is thus a research gap in the SHT process, and the nature of SHT for SD in chronic illness during a routine chronic care consultation in a PHC setting. It seems as if screening rates of SD do not differ significantly between low, middle, and high income countries when various settings are considered. However, a systematic review on rights based approaches reported that sexual and reproductive health studies in low and

middle-income countries must be interpreted with caution as they have considerable bias and are often of poor quality.[212] The researcher could not find comparative studies of SHT and SD in low and high-income countries.

Sexual dysfunction is a problem in the sexual response that prevents a person from experiencing sexual pleasure or satisfaction, and it causes a clinically significant disturbance or concern in their daily lives. Previous studies suggested that SD is common, particularly in but not limited to patients with chronic illness. Sexual dysfunction is complex in its presentation and aetiology and has psycho-emotional, psychosocial, economic, and interpersonal consequences. Although chronic illness is not the only cause of SD, SD has clinical relevance as a comorbidly, biomarker for disease progression and development of complications, and general wellbeing.

Most patients present in primary care and cannot consult anywhere else without a due referral from the primary care setting. The doctors working in primary care thus hold the key to the type of medical help the patient will get for an SD challenge. The consultation is the vehicle to ensure good health outcomes. If SD is not a presenting complaint, the routine consultation is where it is most likely to be elicited. Unfortunately, doctors need the awareness and knowledge of SD prevalence in chronic illness, the skill to initiate the discussion and effective communication skills to bridge any difficulties or patient resistance or embarrassment. Previous studies suggest that this is a prominent barrier preventing SHT. Low health literacy does not leave patients with SD symptoms with many options for help. Prior research suggests that despite the majority wanting to get help and discuss it with the doctor, they also do not know how to initiate such a discussion when the doctor is not perceived as approachable. The few patients who did attempt it, had negative experiences, and felt dismissed, rejected, and judged. Studies also suggest that professional conduct and continuous learning benefited doctors who realised they lacked the skills and wanted to change.

As stated in the Chapter 1 and 2, few studies in this field have been published in South Africa, despite our high incidence and prevalence of STI and HIV/AIDS. Sexual functioning is part of total biopsychosocial wellbeing and comprehensive patient care is needed to maintain this wellbeing.[171,172] The next chapter will deal with the methods used to achieve the aims and objectives as well as limitations to this study. The chapter will end with reflexivity.

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# CHAPTER 3: METHODS

## 3.1 INTRODUCTION

This is a PhD study by publications, with the detailed methodology applicable to the specific aim and objective of each of the six articles described in the respective articles. This chapter provides a broader methodology description and the theoretical framework for the study. This chapter starts with the setting, followed by the research design, axiological and philosophical assumptions, as well as the research framework. This chapter will also describe the justification for the research design, recruitment, and participant selection, as well as the tools used for each objective. It also describes and reflects on the research process.

## 3.2 SETTING OF THE RESEARCH STUDY

Dr Kenneth Kaunda Health District[1] in the North West Province, South Africa, was selected as a research site (Figure 3.1). Permission was obtained from the Provincial Policy, Planning, Research, Monitoring and Evaluation Director and a later request to include the K/T Hospital complex primary care clinic, was approved (Appendix 3). The Dr Kenneth Kaunda Health District has an equal balance between rural, urban, and semi-urban, which was suitable for the purpose of this study. The District includes the cities of Klerksdorp and Potchefstroom, although their inhabitants are not typical city dwellers. The neighbouring districts are Dr Ruth Segomotsi Mompati to the west, Ngaka Modiri Molema to the north, and Bojanala to the east. Geographically, it covers 14,767 square kilometres. The district has a total population of 807,252 and a population density of 54.7 persons per square kilometre.[1] At the planning stage of the study, the Dr Kenneth Kaunda Health District, from 1 April 2013 to 31 March 2014, rendered a health service to a population of 707,479. Data for 2015 were not available at the time of the research proposal submission. At the time of data collection, these numbers were similar and stable. The health care service is free to individuals who are unemployed, receive government grants, pregnant women, children, and individuals living with HIV and tuberculosis.




**Figure 3.1: The Dr Kenneth Kaunda Health District**[2]

It was previously reported that the number of patients in the study District living with diabetes and hypertension, increased dramatically with improved record keeping, recording, and capturing of data after 2016 (add in reference). At the time of data collection, appointment books clearly indicated the target group patients for this study, which facilitated the selection of patients living with diabetes and/or hypertension. The data for the prevalence of diabetes and hypertension were updated in April 2019 to incorporate the data collection period (Table 3.1).

**Table 3.1: Research Sites and Prevalence of Diabetes and Hypertension from 1 April 2018 to 31 March 2019**

| Sub-district | Diabetes | Hypertension |
|---|---|---|
| | Number of persons per 1000 population | |
| Maqwassie Hills | 54.1 | 360.7 |
| Matlosana | 34.9 | 217.8 |
| Tlokwe | 27.6 | 52.1 |

*Source: Dr. Kenneth Kaunda Health District Department of Health Statistics as obtained in person from the District offices August 2019.

The Dr. Kenneth Kaunda Health District consisted of 27 primary care clinics and ten community health centres with staff remunerated on a fixed scale by the provincial government. Public primary care (PC) in South Africa is nurse driven and doctor supported in clinics and community health centres across the country. Ninety percent of the population can use this free service within 5 km of their homes.[3] Patients are generally satisfied with services that focus on chronic illness (diabetes, hypertension, asthma and others), as well

as mental health, HIV/AIDS, tuberculosis, trauma, disabilities, and reproductive health (ante-natal care, family planning and maternity).[4] Primary health care services in PC settings are free to all patients, who can consult nurses in clinics and health centres without an appointment. The nurses make appointments (called bookings) for patients with chronic illnesses on specific dates to consult the doctor, as per standard guidelines. Patients are "booked" for a specific day, but not a specific time during the day; they are seen on a first-come-first-served basis which means most patients present early in the morning and some can wait the entire day for health care services. Walk-in patients (or acute presentations) are accommodated to consult the doctor after the booked patients, if the doctor has time and the nurse considers the person sick enough to be assisted by a doctor; patients requiring a doctor but who cannot be accommodated or those needing emergency care are referred to the nearest hospital.

On arrival, patients present their patient cards with the file number, whereafter an administrative officer collects the files from the archive. The files are either taken to the nurses by the administrative officer or given to the patient to take to the nurses, depending on the clinic. Patients then join a queue to have their vital signs checked and then sit down to wait for the doctor. In some clinics the nurses will go to the central point and collect files for the doctors and in smaller clinics, the patients will keep their files till the nurse calls them to consult the doctor. The files belong to the clinic. After the patient has consulted the health care worker, the patient takes the file to the pharmacy and medication is dispensed. The file is then returned to the archives.

Health maintenance and disease prevention talks are presented by the nurses in the form of health talks in the waiting room, whilst the doctors will screen for health risks and do health education during individual consultations. Various national guidelines encourage screening for risks of cardiovascular disease, diabetes, sexually transmitted infections, and mental health, for example.

The initial study plan was to select clinics that rendered services 24 hours per day, and seven days a week, to facilitate the sampling of employed patients who anecdotally collected chronic medication after working hours and over weekends. This, however, did not materialise as planned. Despite earlier negotiations and permissions, the researcher was informed that there were seldom doctors present over weekends. The nurses called the doctors if there was something they could not or did not want to manage, otherwise the doctors dealt with emergencies and would not assist with recordings for a research study. As the study site is approximately 193 km from the University of the Witwatersrand, it meant that

the researcher remained in the Dr. Kenneth Kaunda Health District during the data collection period due to the difficulty of a daily commute.

## 3.3 RESEARCH DESIGN

### 3.3.1 What is Grounded Theory?

Grounded theory was the brainchild of Strauss (a symbolic interactionism expert) and Glaser (an expert in descriptive statistics), and is unique because of its constant comparative elements and the use of inductive data analysis to generate theory.[5,6] Grounded theory was born out of their belief that consensus in a community of observers and the nature of what they observe determines scientific truth or knowledge. Thus reality is an ongoing interpretation of the meaning of the common observation.[7] This design, just over 55 years ago, contested not only the traditional and dominant way of thinking of quantitative research, perceived as the only unbiased and valid research method, but kept on evolving, incorporating additional philosophical paradigms that influenced the development of this methodology.[8] Currently, three distinct genres exist in this design: traditional or classical grounded theory (Glaser), evolved grounded theory (Glaser, Strauss, Corbin and Clarke) and constructivist grounded theory (Charmaz).[8,9] As the study aims included developing a theory around a problematic pattern of behaviour (non-screening for sexual dysfunction during the consultation), that caused patients to have a low quality of life and missed biomarkers of cardiovascular disease, the constructivist grounded theory was deemed appropriate.

Tie *et al.*[8] developed a schematic framework to explain the meticulous process of grounded theory which indicated the phases, as well as the concurrent data collection and constant comparison during the theory development (Figure 3.2). It is important to be familiar with the literature or theory on the research problem (being theoretically sensitive) to recognise meaningful new information.[8,10] Tie *et al.*[8] also summarised the coding terminology where the constructivist used initial coding for open coding; focussed coding for axial coding and theoretical coding for selective coding.

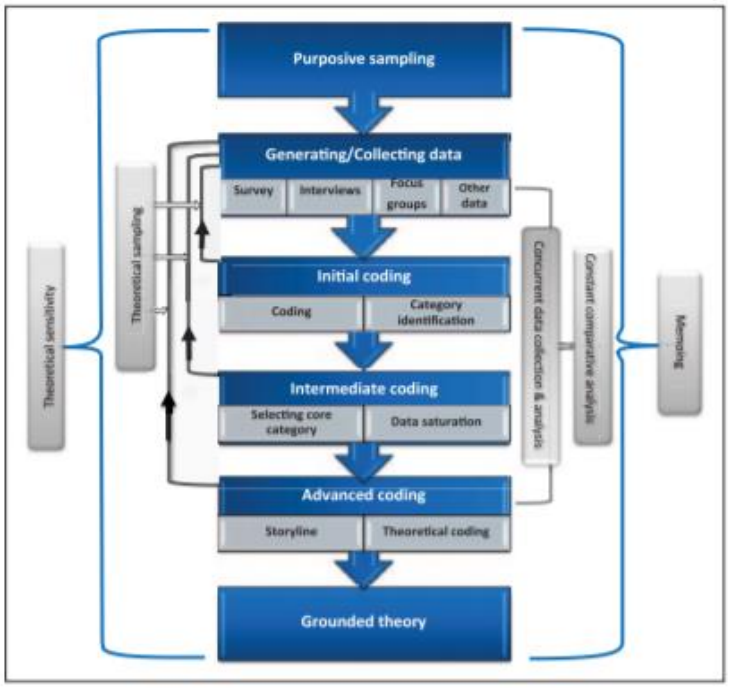


**Figure 3.2: Research Design Framework on the Interplay between Grounded Theory Methods and Process**[4]

### 3.3.2 Justification for the Research Design

Grounded theory is commonly used in health research and was deemed suitable to explain how the social interaction process of sexual history taking occurred between doctors and patients in the primary care routine consultation.[11] Grounded theory analyses causes, contexts, contingencies, consequences, covariances and conditions to describe and understand patterns and relationships in these social processes.[11] It is also used to explain a process through studying the interactions and experiences and to obtain information from those who experienced the phenomenon under various circumstances.[11,12] In this study, it included patients and doctors. As there was little evidence of sexual dysfunction being screened for or managed in primary care, it was difficult to identify patients who experienced it. Due to low health literacy levels, some patients may not even have a name for what is happening to them.[13] Grounded theory favours participants who can contribute to the theory[10] and thus, the consultation between doctors as well as patients living with diabetes and hypertension who were sampled based on their theoretical risk of sexual dysfunction, could contribute to the theory.[14–19] The participants were homogenous in the sense that all of them lived with diabetes and/or hypertension and consulted in primary care clinics for their chronic care, but allowed for diversity in age and sex as it was not known if the interaction patterns would change favouring age or sex.

## 3.4 SAMPLING

The study consisted of two parts with five role players. Study one focused on recording the consultations between patient and doctor, the settings and participant characteristics. Study two focused on doctors' clinical reasoning. The nursing and administrative staff in the clinics were in the background of this study, and set the atmosphere in the clinic, which either eased or complicated the data collection process. The patients and doctors were key players, who the researcher and research assistant were in constant interaction with, to facilitate the data collection process. Figure 3.3 represents an overview of the study from recruitment to the dissemination of results.




**Figure 3.3: Overview of Methods**

The plan comprised collecting data at various points in the doctor-patient interaction to lay the foundation for an emerging theory.

### 3.4.1 Site Selection

Permission was obtained to use certain facilities for the study in 2017. but it did not guarantee that these clinics would participate. A few weeks before the study commenced, all the clinics were visited with a Family Physician familiar with the area, to prepare clinics for the planned study. Contact numbers were recorded to schedule appointments. After the clinics, appointments with the doctors were made for data collection days. On the day of data collection, patients meeting the inclusion criteria were selected. The recruitment and selection process will be discussed in the sections to follow.

The only inclusion criterion for the setting was that a doctor must consult patients at least once a week at the setting. Twelve sites met the criterion:

- Maquassie Hills sub-district: Tswelelang I and II clinics
- Matlosana sub-district: Jouberton CHC, Tsepong Gateway, FMC TI pong, Itereleng, Khuma / Marcus Zenzile clinic
- Tlokwe sub-district: Boiki Thlapi, Ventersdorp CHC, Grace Mokhomo, Promosa and JB Marks clinic

One clinic was excluded after the doctor repeatedly promised to give an appointment date but failed to do so, and one clinic declined participation. The sampling of clinics is reflected in Figure 3.4.

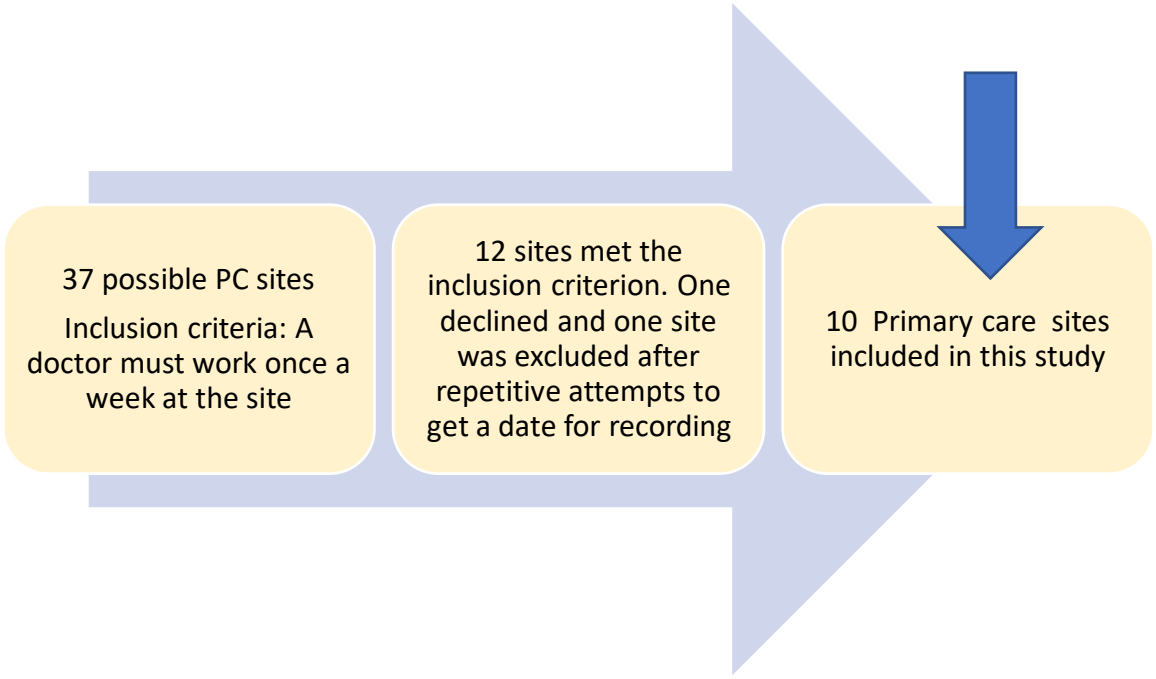


**Figure 3.4: Recruitment and Selection of Participating Sites**

### 3.4.2 Participant Recruitment

#### 3.4.2.1 Recruitment and selection of doctors

To observe the consultation, doctors and patients were involved. Doctors were recruited followed by patient recruitment. The researcher and research assistant recruited all the doctors. A presentation was made at one clinic of an overview of the planned research without reference to sexual history taking. This was a Health District requirement, and all the doctors were invited to the presentation. Thereafter, the researchers made appointments to see the doctor and scheduled a recording date. During the data collection period, 28 doctors worked in the selected primary care sites. Family physicians (specialists) were excluded as they were familiar with the researcher, and it may have influenced the research outcome. Twenty-seven doctors initially agreed to participate, but upon arriving for the recording, some declined, withdrew, or were excluded. Twenty-one participated in the video recorded

consultations with patients (the core of this study). Nineteen completed the hypothetical scenarios, and 20 were interviewed (one was on leave) (Figure3.5) The clinics had one or two doctors who rotated on different days of the week. Only Setting 10 had a team of doctors every day.

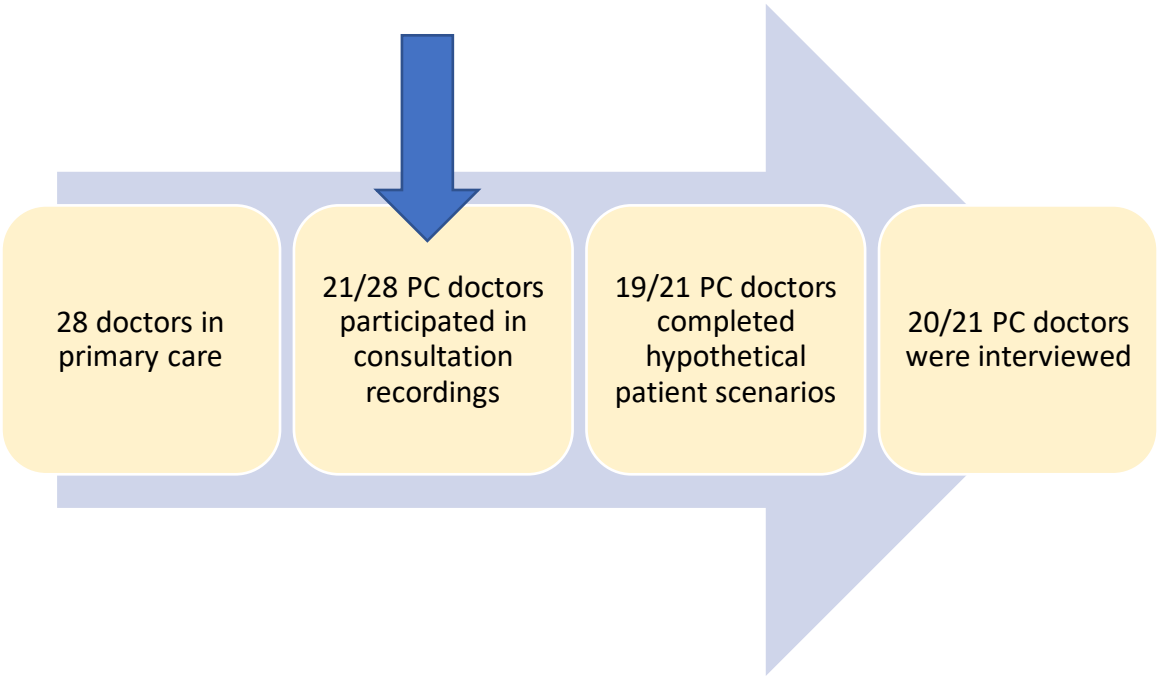


**Figure 3.5: Sampling of Primary Care Doctors for this Study**

### 3.4.3 Recruitment and Selection of Patients

The inclusion criteria were patients older than 18 years living with diabetes and/or hypertension. These patients were selected for their theoretical risk of sexual dysfunction due to their illness or medication use.[15–19,23] These patients were the first source of pertinent data, namely, SD.[24] In the future development of the theory, more theoretical sampling will be needed to test and develop the theory by identifying other sources of information.[24] For the qualitative component, the concept of saturation as a determinant for sample size could be sufficient. Saturation as a criterion for sample size, however, raised concerns. What if the doctors did not have enough consultations warranting SHT? The sample size was determined using the theoretical number of consultations needed to observe enough examples of sexual history taking. The calculation of the sample size was complicated as only a few studies globally provided data on disclosure rates. There was also a difference between spontaneous disclosure and disclosure when prompted or asked that varied between 3% and 20%.[25] In addition, there were variances in the study settings and countries where similar studies were done, as no literature was found for Africa. The available literature at the time of planning suggested that doctors and patients discussed sexual challenges in 14% to 20% of consultations.[25–27] A study assumption was that based on the prevalence of HIV/AIDS in South Africa, discussions on sexual health would take place more often and not less than the percentages retrieved from the literature. The midpoint of 14% and 20% i.e.

17%, thus formed the basis for the sample size calculation.[28–30] The sample size was calculated using the nQuery Advanced (Statistical Solutions Ltd, Cork, Ireland) Release 8.4 software program, using an expected rate for history taking of 0.17 and an accuracy level of 0.06 : n = p(1-p) $[1.96/a]^2$ where p = proportion expected disclosure rate or history taking (0.17), and a = accuracy as a proportion (0.06). The sample size was calculated as 151 (Figure 3.6).

Due to the clinics' workflow differences, field changes for the sampling of patients were made. In small clinics, the nurse taking the patients vital signs identified prospective study participants and alerted us after the announcement of the study to patients in the waiting area. In Setting 10, more patients were booked per day and not always allocated to a specific doctor. Even when the nurse alerted us, the files could be collected by several nurses for their doctors that day. The researchers then requested that the files of the first ten to 15 consecutive patients who met the inclusion criteria, be allocated to the doctor being video recorded on that day. Following this, the files from that group were selected when patients showed an interest to participate in the study and consented. Depending on the pace at which the doctor would consult patients, some of the files would be returned if the doctor was slow, to ensure that the patients were not delayed. Some patients declined participation (10.45%) See Figure 3.6. This was accepted without any questions as it was within their right to refuse participation.

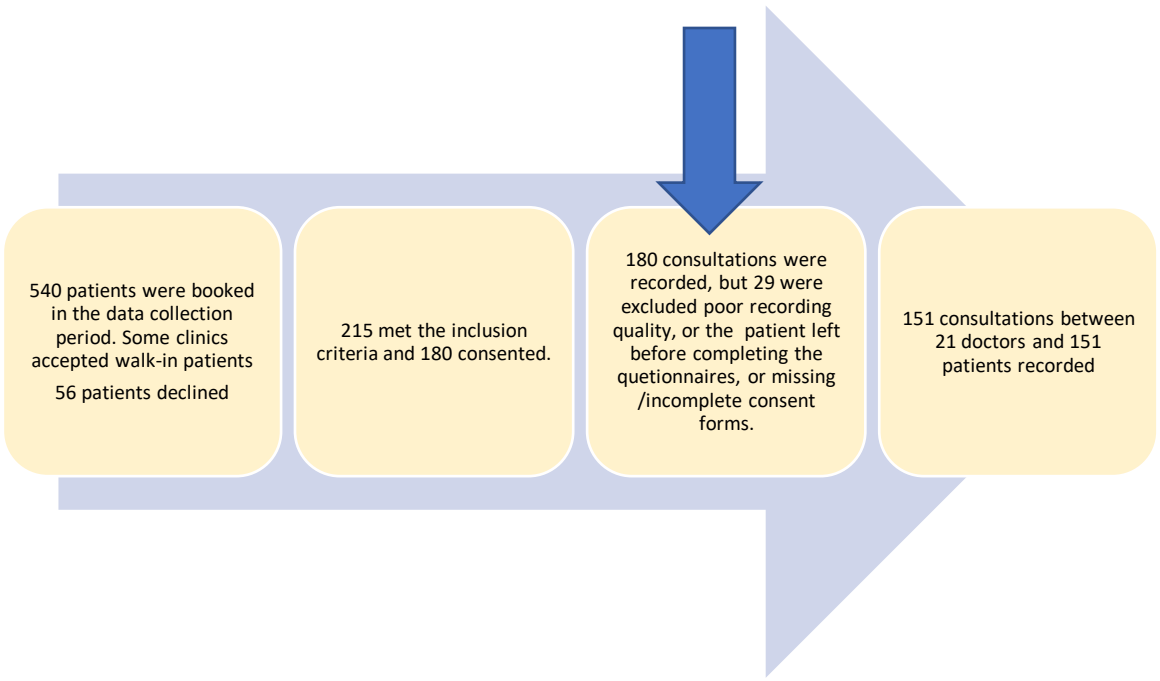


**Figure 3.6: Sampling of Patients in Primary Care for this Study**

### 3.4.4 Recruitment and Selection of Doctors for the Hypothetical Patient Scenarios

The same cohort of doctors who participated in the recording of the consultations, were given the vignettes of the hypothetical patient scenarios to respond in writing. (Figure 3.7).

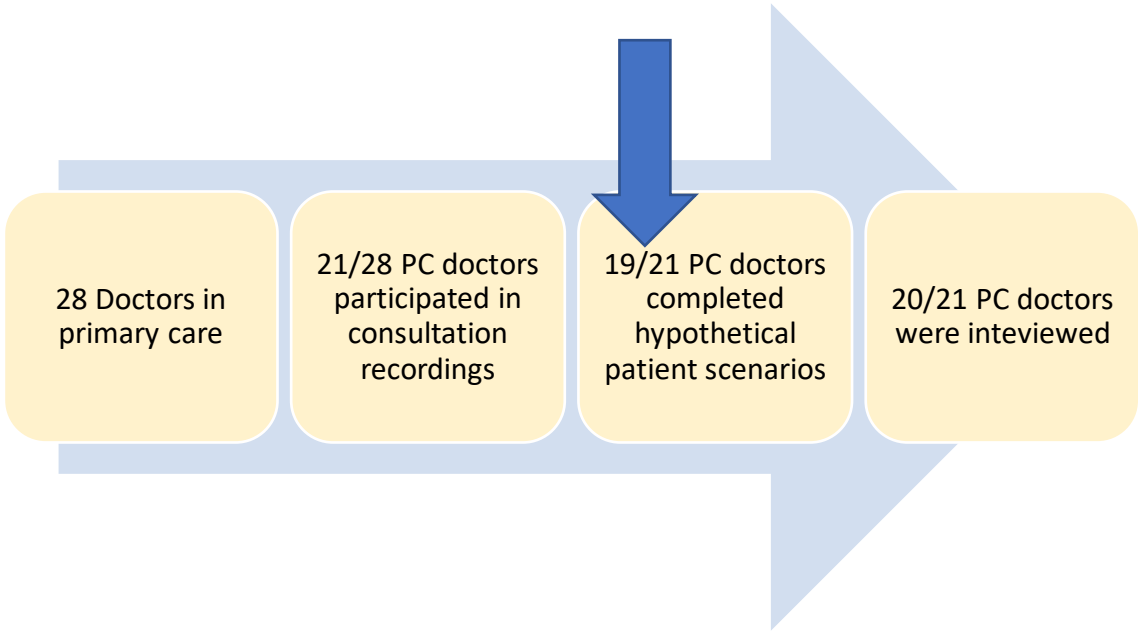


**Figure 3.7: Sampling for Study Two: Hypothetical Patient Scenarios**

Nineteen doctors agreed to be interviewed on completion of their consultation recordings at the end of a working day to reflect on the consultations and barriers to SHT they experienced (Figure 3.8).

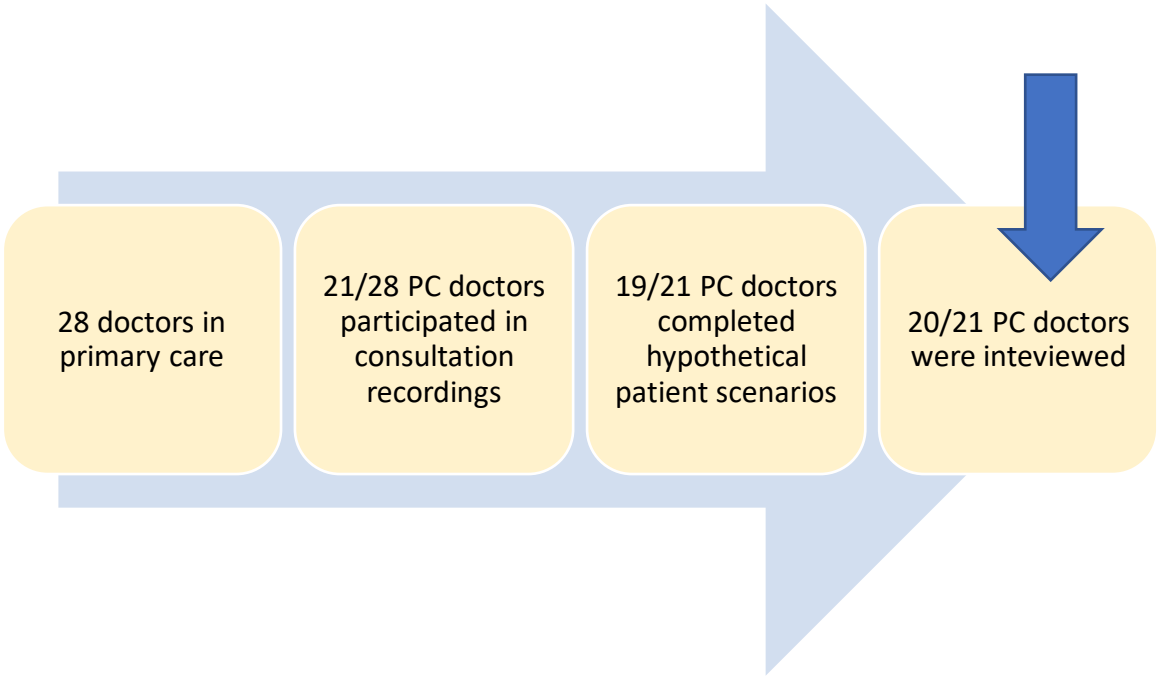


**Figure 3.8: Sampling of Doctors for Interviews**

## 3.5 MATERIALS AND TOOLS

Materials and tools used in collecting data from the consultation, the setting, the patients, and the doctors are described in this section.

### 3.5.1 Tools for Consultation Assessment

The consultations were qualitatively assessed, with various tools used to enrich the data. The following were presented as tools to capture information on the consultations:

- Structured field notes and comprehensive notetaking[31] of the system or setting related factors that may influence consultation outcomes, such as duration of consultation, and number of patients seen (Appendix 4).
- Every consultation was observed three times for the researcher to become familiarized with the data, after which it was reviewed again, notes were made, and transcripts checked to be a true reflection of the consultation. The transcripts of these consultations were then imported into the MAXQDA software program, and the inductive coding performed. The consultations where a form of SHT was present, were separately analysed. A group of independent reviewers reviewed the coding. The review group met with the researcher and discussed divergent opinions on the categorisation of the inductive coding of the consultation transcripts (member check).[32]
- The researcher used the Workplace Based Assessment (WPBA) competence framework of the Royal College of General Practitioners (RCGP)[33] (Appendix 5) to review the scope and quality of the consultation after the first round of analyses and initial coding of the recorded consultations. The tool is used by Family Medicine trainers for clinical governance at the district level where the study was conducted. The WPBA competence framework[33] was used as a structured overview tool for selected competencies of the consultation. This tool was used to compare the researcher's observations and coding with the tool, which had clear measurable category descriptors. Observations of communication and holistic practice can often be abstract or elusive when describing it to an audience not sensitised for soft skills and qualitative research with the two methods thus informing each other.[34,35] The use of this tool for additional template analysis enhanced the findings. Permission to utilise the framework was obtained from the Royal College of General Practitioners (Appendix 6). This structured framework is generally used to test general practitioners' competence in 13 key areas.[33] The categories included in the WPBA competence framework are the following: communication and consultation skills (competency in communicating verbally and non-verbally with patients, and the use of recognised consultation techniques), and practicing holistically (this represents the ability of the doctor to operate in physical, psychological, socio-economic, and cultural dimensions, considering feelings as well as thoughts). The consultation was considered successful if it complied with the two categories and its subheadings and allowed

disclosure of sexual health issues. This tool underlined the descriptive aspects of the consultation, but also served as a research instrument to quantify the success of the consultation. To ensure consistency in observations of communication and consultation skills, for example, these were rated as either insufficient evidence, needs further development, sufficient and excellent.[33] All 151 consultations were observed and assessed with the WPBA tool after initial reviews and observation coding. The coding review group randomly selected consultations from different doctors to review to ensure intercoder reliability.[32] The descriptor in every category in the tool is clear and specific, and the group members agreed with the researcher's assessments.

- The scope and quality of the history taking during the consultation was compared to an ideal theoretical Sexual History Taking Algorithm designed by Lloyd and Bor.[36] This included verbal cues regarding sexual dysfunction and/or dysfunction communicated during the consultation (including questions on components of sexual history and criteria of sexual dysfunction)[23,36] (Appendix 7). Any attempt to elicit sexual history was indicated on the appropriate sections of the algorithm. This instrument was only used after the initial and focussed coding of the recorded consultations to compare observations with the tool and to ensure theoretical sensitivity regarding the ideal content of SHT. Theoretical sensitivity is obtained when the researcher involves themself deeply with the emerging data; Hoare *et al.*[37] described it as dancing with data. It can be defined as a multidimensional concept that represents the researcher's understanding of the research concept and the extent to which the researcher can observe and interpret the nuances and complexity of a participant's words and actions.[38] The researcher must also display the ability to reconstruct meaning from the data and to separate the relevant from the irrelevant. [38] Theoretical sampling must follow theoretical sensitivity to complete the cycle of grounded theory.[37]

### 3.5.2 **Tools for Characteristics of Patients and Doctors**

The patient completed a self-administered demographic questionnaire (Appendix 8) after the recording of the consultation. Variables were selected based on previous studies and included familiarity with clinic staff; first language; age; sex; education; marital status and duration with partner; education level; quality of relationship with partner and clinician; perception about sexuality as a sensitive topic; the wish to discuss sexual problems; factors that will either facilitate or inhibit discussions of sexual nature.[14,39]

Similarly, the doctor completed a demographic questionnaire after the recording of all the interviews as part of the debriefing (Appendix 9). This demographic questionnaire included variables such as ethnic background, marital status, date qualified, training in sexual health,

self-assessed ability to talk about sexual health and opinion about who must initiate a discussion about sexual health.[14,16,39,40]

### 3.5.3 Tool for Clinical Data

The presence of signs, symptoms, and certain medication, according to the literature, suggests the need to screen for sexual dysfunction during the consultation. The doctor completed the clinical information on the questionnaire and if not done, the researcher copied the information from the file onto the questionnaire (Appendix 10) with variables such as presenting complaint; vital signs; chronic disease/co-morbid disease; and class of prescription medication the patient was using.

### 3.5.4 Tools for Sexual Dysfunction

Following the recording, the patient consented to complete a standardised questionnaire, namely the Female Sexual Function Index (FSFI) for women (Appendix 11) or the International Index of Erectile Function (IIEF) for men (Appendix 12). Permission to use the questionnaires was obtained from the Taylor and Francis online resource bank (Appendix 13).

These questionnaires are used globally and have not been validated for South African use. The DSM IV diagnostic criteria and the ICD10 (both criteria used in South Africa) formed the basis of the FSFI, and were therefore considered appropriate.[41] The FSFI is based on clinical interpretations of a principle component analysis of six domains, namely, desire, arousal, lubrication, orgasm, satisfaction and pain. The questionnaire was validated by the New England Research Institute using eight independent datasets.[42] The internal consistency of the FSFI was significant as measured by Cronbach's alpha values of a minimum 0.82 in all six domains.[42] The sub-scales' statistical values ranged between 0.82 and 0.93. Test-retest reliability was relatively high for the total scale ($r = 0.88$) with the domains varying between 0.79 and 0.86.[42] Discriminant validity was significant in all the domains.

Similarly, the International Index of Erectile Function (IIEF)[43,44] is a validated scale and used for men. The domains assessed by this questionnaire were sexual desire, erectile function, orgasmic function, intercourse, and overall satisfaction. The internal consistency of the IIEF was significant, with values of 0.91 to 0.96 in various clinical trials globally. Test retest reliability was high for the total scale ($r = 0.82$) with the domains varying between 0.77 and 0.84.[43,44] The domains assessed by this questionnaire were sexual desire, erectile function, orgasmic function, intercourse and overall satisfaction. The scoring algorithm and validation statistics for the FSFI and IIEF are provided in Appendix 14.

The questionnaires were heteronormative in their presentation and used neutral language which could accommodate different genders. As an example, the questionnaires refer to "partners" which is a neutral term and various sexual orientations can identify with it. Neutrally presented information or questions contribute to lower levels of questioning distress in non-heterosexual individuals.[45] The patients completed the questionnaire based on their presenting gender and no one was forced to complete a questionnaire they did not feel comfortable with. Patients were asked to complete the questionnaire based on the face value gender presentation. The transgender patient identified as a woman and completed the female sexual function questionnaire. The questionnaire was excluded when we received the patient file and found the patient did not have diabetes or hypertension (inclusion criteria). It is important to note that the purpose of using these two instruments was not to measure sexual dysfunction or gender orientation. It was to obtain information on the symptoms associated with SD that could be elicited during the consultation. This was a method to link the scientific criterion based measurement of SD with the consultation content and to emphasize the relevance of the SHT process.[46]

### 3.5.5 Tools for the Hypothetical Patient Scenarios

The vignettes (Appendix 15) were used as the methodology of choice for the hypothetical scenarios. Vignettes have highly discriminative values and simulate competence in practice just as well as, or better than, simulative patients.[47–49] The limitation of the vignette is in its quality; if a vignette is poorly designed, it loses its discriminative value. The researcher limited this using real patient information and presenting complaints and piloted or tested the vignettes in a Gauteng health district with 15 medical officers and registrars who responded to the questions and critique the intelligibility of the vignette. No changes were suggested.

Two scenarios were created based on real patient information:

Scenario one:

*A 48-year-old female patient with Type 2 diabetes mellitus presents in your consulting room with complaints of vaginal burning and itchiness. She has no suprapubic pain and confirms a slight discharge. She has a history of noninfectious vulvitis. Vital signs, random blood glucose and HbA1c are within the normal range*.

Questions on Scenario one were:

- What possible conditions could be affecting this patient?
- What would you like to ask the patient to help her?
- How will you manage this patient based on the information given to you?

Scenario two:

*A 45-year-old male patient presents for his annual checkup. He is a known hypertensive patient for the past ten years, and at present on Atenolol (Tenormin) 100 mg daily, Enalapril 10 mg b.d., and Hydrochlorothiazide (HCTZ) 12.5 mg. He is happy to inform you that he stopped smoking three months ago (he smoked 18 cigarettes per day since age 17). He complains about fatigue.*

Questions on Scenario two were:

- What possible complications will you explore?
- How will you manage this patient based on the information given to you?

The initial approach was to compare the doctors' answers with clinical guidelines; however, constant comparative analysis of the qualitative data took this aim in another direction. From the data, it appeared that doctors did not think of or prioritise sexual dysfunction. This led to the question of whether the researcher had inflated the importance of sexual history taking or did the doctors reflect poor skill? If this were a test, how would they fare? The decision was then made to use this data and do a standard setting with a reference group which changed the analysis and article pathway.

### 3.5.6 Interview Schedule for Doctors

At the end of the day after all the consultations were recorded, a debriefing interview (Appendix 14) was held with the doctor where they were informed about the specific focus of the study and asked to reflect on the recorded videos and their practices.

Interviews were started with the same introduction every time:

"*Thank you for agreeing to participate in this research. The specific focus of this study was to observe sexual history taking content, as well as the patient doctor interaction related to it. About 60% plus patients with diabetes and hypertension experience sexual dysfunction, and some studies suggested that about 90% of patients want to discuss sexual challenges with you to get help."*

*Question: I would like to know your perceptions and experiences of sexual history taking during the consultations we recorded. The videos are available if you want to refresh your memory."*

The researcher allowed the doctor to respond with whatever came to mind. Probing questions, if relevant, were:

- What stopped you from taking a sexual history?
- What helped you to ask about sexual challenges?
- What must change to take a sexual history?

- What training did you have on sexual dysfunction?
- Would you like training on sexual history taking and/or sexual dysfunction?

### 3.5.7 Field Notes and Theoretical Memos

Unstructured fieldnotes were used to document the interaction between the system, the doctor and the patients, in order to describe the big picture, context and process.[50] Being part of the process, it was not possible to separate our personal frames of reference in this observation and note-taking process. The researcher and research assistant both recorded field notes. The decision was to document what we saw when we arrived at the clinic such as the setup, patients queuing, how the setting is ordered and so forth. This formed part of the more structured note-taking, for which a specific tool was used (Appendix 4) after arriving at the setting. The more salient hierarchical notes[31,51] were documented at the end of the day as this required more reflection and was a time intensive exercise. Unstructured field notes were recorded in diaries used specifically for this purpose.

Theoretical memos[52] were developed when the coding process started. Some of these were written, but more often, they were diagrams or drawings of interactions or elements of the interaction or how the patient-doctor interaction process played out. Sometimes there were code meanings the researcher doubted or wanted to check again. Sometimes there was a coded link with the literature or another research study. There was no specific structure in the development of these memos.

## 3.6 DATA COLLECTION

Study One was the core of this research study as it aimed to describe the clinical consultation process between a patient living with chronic disease and the doctor, with a specific focus on sexual history taking in primary care settings in the Dr Kenneth Kaunda Health District.

### 3.6.1 Data Collection: Consultation Recordings

Figure 3.9 represents the data collection process. As previously stated, the researchers waited for the nurses to alert them about which patients to recruit, but patients were asking why certain patients were selected and not others. After getting the same question on day two, a decision was made to have a brief overview of the research process, the selection criteria, and the recording process of the consultations in Setswana, Afrikaans, English, and Sesotho early in the morning in the waiting room. Patients expressed their satisfaction with the new process.

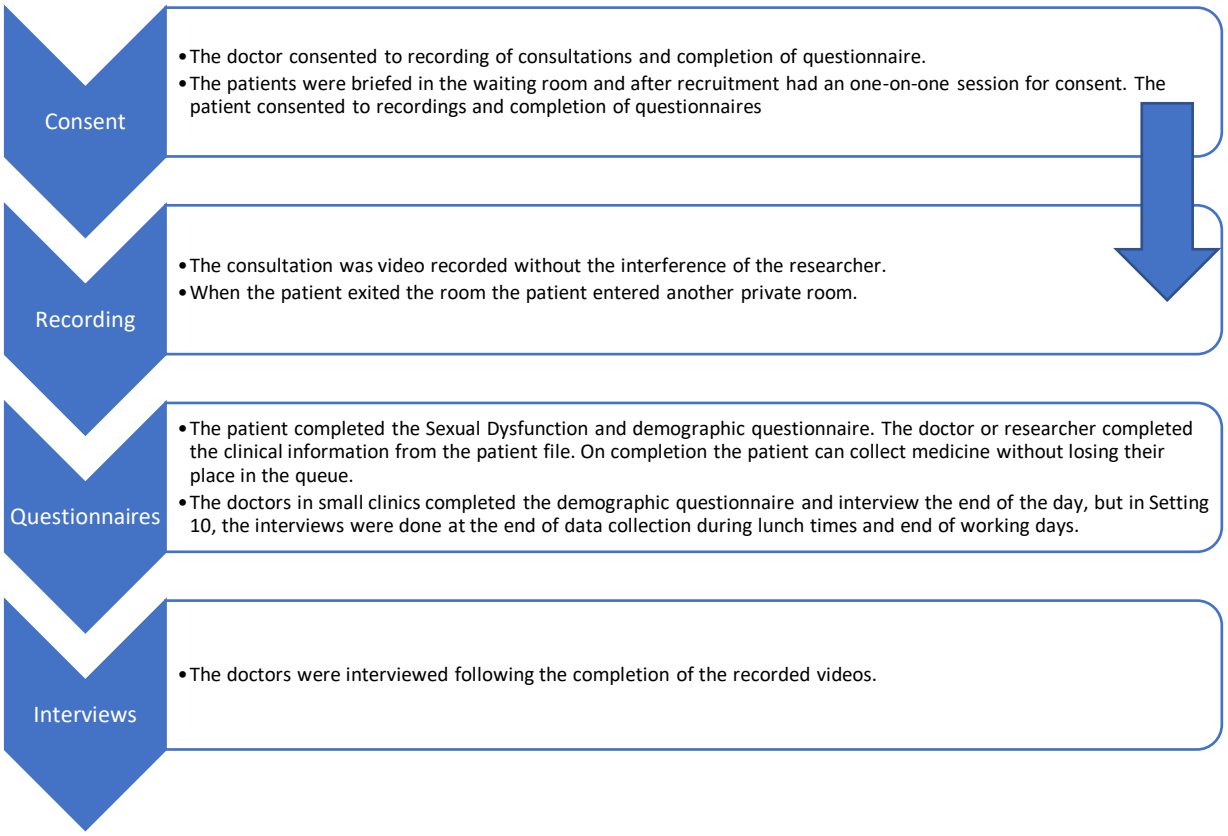


**Figure 3.9: The Data Collection Process for Consultation Recordings**

Responsibilities were divided between the researcher and research assistant. The research assistant recruited patients and sought their consent to participate in the study after files of the potential candidates were obtained. The research assistant could speak five of the 12 national languages of South Africa, which made it easier to explain to a patient in his or her first language what the research study was about. Every patient eligible for the study was given an information sheet (Appendix 16). The researcher set up the video recordings and obtained consent from the doctors as the focus of sexual history taking was blinded for the recording of the consultations for both patients and doctors, to not sensitise them; and they gave their written consent (Appendix 16) that the content of the consultation could be analysed.

Doctors received an information sheet and completed a written consent form (Appendices 17 and 18). The researcher recorded the information session with the doctor as if it was a consultation, which was then played to the doctor so that they understood the process and to ensure that the camera angle and sound quality was good. Some of the clinics had a dedicated nurse as a translator assisting the doctors. The researcher did not have a consent form for translators as we were unaware of the service. They were included in the recording of the information and consent process, and they also signed the same consent forms as the doctors.

The research assistant informed the researcher of the patients who consented, after which the patient was called for the consultation. The patient was called by the nurse and on entering the consultation room, confirmed that they were participating in the research. The patient handed the doctor the biographical questionnaire to capture the clinical information. The researcher then activated the camera and left the room. Some doctors preferred to activate the camera themselves. A camera on a laptop was used to observe the doctor and the patient without invading their privacy would an examination take place. The patient and the doctor could only see a blank screen from the moment the camera was activated. The researcher waited outside the consultation room and, when the patient exited, deactivated the camera. The researcher also documented information including vital signs and medication from the file if the doctor failed to do it. The research assistant waited to accompany the patient to a private room where the questionnaires were completed. While the next patient was recorded, the researcher took the patient's file to the pharmacy while the patient went to the research assistant to complete the demographic and sexual dysfunction questionnaires. The patient did not lose their place in the queue for either their consultation with the doctor or waiting for medication. Both the research assistant and the researcher recorded field notes. Anything observed or that crossed our path or caused delays that could impact the outcomes during the day, were documented. Patients who were referred for radiology after the consultation first completed the medical requirements, and the researchers waited for the patient to return before completing the questionnaires. Patients who failed to return after the recording were excluded. No incentives were given or paid to participants as it was their usual clinic day, and no one came specifically for the research study. As it is a long day for patients waiting, they received the pen they completed the forms with and a healthy snack as a thank-you-gesture.

### 3.6.2 **Administrative Organisation of the Consultation Recordings**

In organising the consultation recordings, the research team used plastic containers, each containing an A4 size document, that could be sealed, with laminated titles on the lids. Each one contained dedicated content such as tracking sheets, information sheets, consent forms and questionnaires for both patients and doctors

The research assistant oversaw the administrative duties during the data collection period. Initially, the completed consent forms and questionnaires were stored separately as per the project proposal, but it was realised that for an incomplete consent form, the research team would not know which consultation or questionnaire to discard and had to decide this based on a process of elimination or, alternatively, discard the recordings for the day. A field change was made when all forms were left in a sealed envelope till the researchers reached their accommodation to ensure that the consent forms were signed and completed, and only then

were the forms separated and captured. Each consent form was marked with a stamp as accepted and stored in a separate plastic container. The questionnaire data were then captured, and the questionnaire stamped to indicate that it was already captured. The completed questionnaires were stored in a common plastic container.

Tracking sheets for the setting and doctors (Table 3.2) facilitated the daily record keeping and planning. The researchers had similar tracking sheets for patients (Table 3.3) where the booked patients were recorded, the research numbers of patients who consented were recorded and patients who declined. The research number was the date and the patient number as recruited e.g., 20180530.001 to 20180530.010. The researchers could account for when which data were collected, as well as the daily progress.

The research assistant and researcher maintained tracking sheets of recorded consultations with field notes indicating challenges experienced on that day. The tracking sheet was updated at the end of every day, and videos were labelled to ensure that the number of recordings and other data collected, were aligned. The information regarding bookings, DM/HPT and arrived was retrieved from the clinic register.

**Table 3.2: Tracking List for Setting and Doctor Participation**

| Date | Setting: Research site | Doctor No. | Recording | Vignette | Interview |
|---|---|---|---|---|---|
| 20180530 | 01 | 01 | Yes | Yes | Yes |
| 20180531 | 02 | 02 | Declined | Declined | Declined |
| 20180605 | 01 | 03 | Yes | Yes | Yes |
| 20180607 | 03 | 04 | Yes | Yes | Yes |
| 20180611 | 01 | 05 | Yes | Yes | Yes |
| 20180611 | 01 | 06 | Yes | Yes | Yes |
| 20180612 | 01 | 07 | Yes | Yes | Yes |
| 20180613 | 04 | 08 | Yes | Yes | Yes |
| 20180614 | 05 | 09 | Yes | Yes | Yes |
| 20180618 | 05 | | | | |
| 20180619 | 06 | 10 | Yes | Yes | Yes |
| 20180620 | 07 | 11 | Yes | Declined - leave | Yes |
| 20180625 | 08 | 12 | Yes | Yes | Yes |
| 20180704 | 06 | 13 | Yes | Yes | Yes |
| 20180628 | 09 | 14 | Yes | Declined - sick | Leave |
| 20180705 | 08 | 15 | Yes | Yes | Yes |
| 20180709 | 10 | 16 | Yes | Yes | Yes |
| 20180710 | 10 | 17 | Yes | Yes | Yes |
| 20180711 | 10 | 18 | Yes | Declined | Yes |
| 20180712 | 10 | 19 | Avoided us | Declined | Not approached |
| 20180713 | 10 | 20 | Yes | Yes | Yes |
| 20180711 | 10 | 21 | Declined | Yes | No recordings |
| 20180723 | 10 | 22 | Declined | Declined | Declined |
| 20180723 | 10 | 23 | Did not honour appointment, twice | Avoided us | Not approached |
| 20180723 | 10 | 24 | Declined | Declined | Declined |
| 20180724 | 10 | 25 | Yes | Yes | Yes |
| 20180725 | 10 | 26 | Yes | Yes | Yes |
| 20180731 | 10 | 27 | Yes | Yes | Yes |

**Table 3.3: Example of the Video Recorded Consultations Tracking Sheet**

| Date | Research site | Video | Declined | Booked* | DM/HPT* | Arrived* | Inclusion |
|---|---|---|---|---|---|---|---|
| 2018-30 | 01 | 6 | 4 | 34 | 20 | Not available | 4 |
| 2018-31 | 01 Cancelled | 0 | 0 | 0 | 0 | | 0 |
| 2018-05 | 01 | 12 | 4 | 34 | 23 | Not available | 9 |
| 2018-06 | 03 Cancelled | 0 | 0 | 0 | 0 | | 0 |
| 2018-07 | 03 | 6 | 2 | 8 | 0 | Not available | 5 |
| 2018-11 | 01 | 12 | 4 | 26 | 15 | 13 | 8 |
| 2018-12 | 01 | 7 | 5 | 28 | 17 | Not available | 4 |
| 2018-13 | 04 | 1 | 17 | 0 | 0 | Not available | 0 |
| 2018-14 | 05 | 3 | 2 | 23 | 5 | Not available | 4 |
| 2018-18 | 05 | 9 | 0 | 14 | 12 | Not available | 5 |
| 2018-19 | 06 | 7 | 2 | 15 | 11 | 10 | 5 |
| 2018-20 | 07 | 5 | 0 | 5 | 3 | 5 | 3 |
| 2018-25 | 08 | 6 | 3 | 8 | 7 | 2 | 5 |
| 2018-27 | 07 | 0 | 0 | 0 | 1 | 1 | 0 |
| 2018-28 | 09 | 3 | 0 | 3 | 3 | 3 | 3 |
| 2018-04 | 06 | 13 | 1 | 15 | 12 | 14 | 12 |
| 2018-05 | 08 | 12 | 0 | 30 | 12 | 39 | 12 |
| 2018-09 | 10 | 13 | 0 | 138 | 13 | 23 | 13 |
| 2108-10 | 10 | 13 | 6 | 159 | 11 | 19 | 11 |
| 2018-11 | 10 | 11 | 0 | 158 | 11 | 17 | 10 |
| 2018-12 | 10 | 0 | 0 | 158 | 0 | 0 | 0 |
| 2018-13 | 10 | 6 | 0 | 105 | 6 | 6 | 6 |
| 2018-24 | 10 | 3 | 1 | 127 | 4 | 12 | 3 |
| 2018-25 | 10 | 12 | 0 | 169 | 12 | 20 | 12 |
| 2018-26 | 0 | 9 | 1 | 141 | 8 | 14 | 8 |
| 2018-31 | 10 | 11 | 4 | 147 | 9 | 16 | 9 |
| | **TOTAL** | **180** | **56** | **540** | **215** | **---------** | **151** |

*Declined means declined the invitation to participate when meeting the inclusion criteria. *Booked means the patient was given an appointment with the doctor for that specific day. *DM/HPT means the patient in that booked group who has diabetes and/or hypertension as documented in the clinic register. *Arrived means the number of these booked patients who came for their appointments.

### 3.6.3 Organisation of the Data Collection Process for Hypothetical Scenarios and Interviews

At the end of the day when the recordings of Study one's consultations were completed, the doctors received a demographic questionnaire with an allocated number. The researcher gave the doctors new information sheets explaining the study and a new set of consent forms to complete. The doctors were still blinded on the sexual history focus. After signing the consent forms, they were immediately placed into a separate envelope. The doctors first had to respond to questions on the vignette patient scenario one in writing and on completion received vignette patient scenario two. When the doctor completed the answers on the two scenarios' questions, they were asked if they were satisfied with their answers or if they would like to change anything. Being the end of the working day, they did not linger to make changes. The two scenarios and demographic questionnaires were inserted in an envelope and sealed.

After completion of the hypothetical patient scenario questionnaires, the doctors were interviewed on their perceptions of sexual history taking for sexual dysfunction related to the consultations they had (Figure 3.10). In clinics with more than one doctor, doctors only completed the demographic questionnaire. At the end of the data collection process in that setting, the researchers returned for the doctors to complete the hypothetical scenario and interview. The advantage was that they were blind to the focus of the study until the completion of the data collection.

All questionnaires were processed after reaching our accommodation. The consent forms were stored in the consent form container and the questionnaires with no identifiers except for the doctor number, in the questionnaire container. Hypothetical scenario data were captured, and recordings of interviews were labelled and saved on a password protected external hard drive, in line with the university's data management policy and procedures and the study data management plan (Appendix 18).

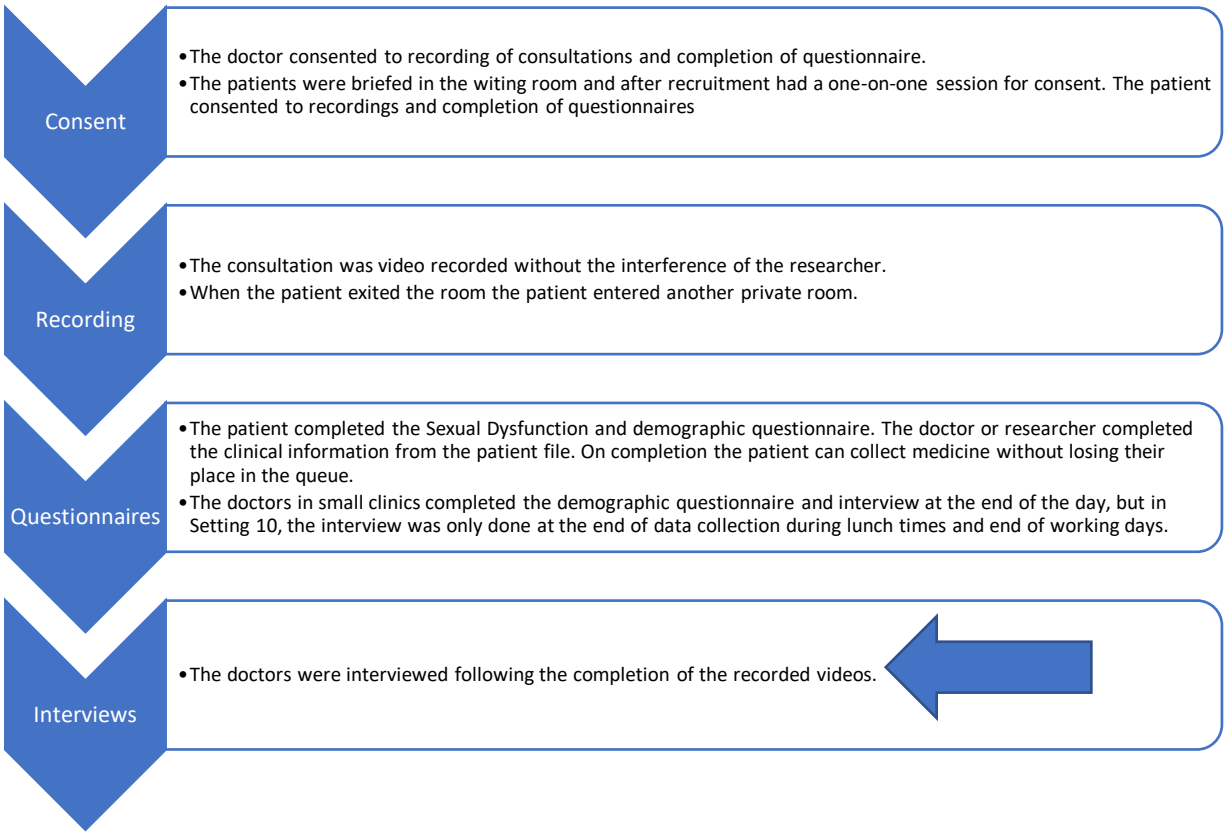


**Figure 3.10:** The Data Collection Process for Interviews with Doctors

## 3.7 DATA ANALYSIS

The data were analysed qualitatively and quantitively. This section will start with the guide for transcriptions and then be divided into the qualitative and quantitative analyses. The qualitative section will explain how the data were coded and themes emerged. The quantitative analysis will describe the statistical methods that were implemented.

### 3.7.1 Guide for Transcriptions

Transcription of consultations and interviews as well as field notes was the most important part of this research study. It was important that the transcriber and researcher agree on the notations to be used.[53] Transcriptions were verbatim, and the following method was used as outlined in Table 3.4. The entire consultation, including the interpreters' words, were transcribed, and translated into English. The multi-linguistic transcriber was a nurse, who translated the conversation as required.

**Table 3.4: Guide for Transcription**

| Symbol | Meaning |
|---|---|
| R | Researcher |
| Dr 01-21 | Doctor number |
| Pt number | Patient number consisted of month, day, and number for the day |
| "xx" | Dr or patient words |
| **.** (full stop) | Brief pause for not more than 2 seconds |
| (xx) | Audible exhalation or utterance indicated in letters or words e.g. (Uhmm) |
| ((xx)) | Double parenthesis for a person who sighs, or laughs, for example |
| **……** | Prolonged silence between words or sentences |
| [xx] | Missed words in spoken language added |

### 3.7.2 Qualitative Analysis

A qualitative analysis has various steps, namely, becoming familiar with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes and then producing the article.[9,10] The video recordings, interviews with doctors, open ended questions and field notes were analysed qualitatively. The responses to the hypothetical patient scenarios were initially coded, using a qualitative analysis after which the categories were used as variables and analysed quantitively.[54]

#### 3.7.2.1 Familiarising of data

This process started with reviewing the videos; thereafter, every review had a specific purpose. The researcher observed the recorded consultations without transcriptions. Coding frameworks were then developed. In the second round, the researcher reviewed and compiled notes on words or behaviours that stood out in the videos. The researcher also made notes of non-verbal behaviour, interruptions, as well as general observations for example, handwashing, examinations on the chair, and open doors of medicine cabinets .

The third round was to assess the accuracy of the transcriptions. Mostly, transcriptions were corrected when conditions or medications were used, and the transcriber did not know their names, and in a few places where the doctors' speech or words were unclear. Other changes made were where colloquial expressions were omitted or translated without the original wording documented e.g., "Howa!" (an expression of indignation or surprise) was omitted or "hallo papa" was transcribed as "hallo father". By this time, the recordings with SHT for HIV were identified, and they were scrutinized for non-verbal cues. A pattern regarding the use of consultation time was observed, and then the videos were again watched with a stopwatch to document times of interaction, writing, checking lab results and so forth. At this point, the HIV SHT consultations were separated from the others for a detailed analysis.

A similar process was followed with the interview analysis. When analysing, some code would seem out of place, or the researcher could not recall why this code was associated with a specific category. The researcher then listened to it, made notes, and then listened again to ensure that transcripts or codes were correct. The recordings were mostly quite clear, and the interviews not too complex. Transcripts also had problems with the transcription of phrases, such as “last and forgotten” which after being queried were thought to be “lost and forgotten”; however, upon review and repetitive listening, the researchers realised it must have been the blending of “the last thing on my mind” and “lost and forgotten”.

A sample of the videos were then assessed by the reviewer team consisting of two family physicians and a general practitioner to assess the transcript accuracy. This process was repeated to compare their observations with that of the researcher. The recordings were randomly selected by putting patient numbers in a box and the researcher randomly selected 15 recordings to review.

#### 3.7.2.2 **Generating initial codes**

The organisation of coding in terms of who is coding, time, and date of coding were automatically generated by the MaxQDA 2018[55] software. Transcripts were coded line by line by either identifying gerunds or the same words, phrases, or sentences with the same meaning. In the second round, the context was also considered. During this inductive or initial coding process, the videos were reviewed again to ensure accuracy and to gain a better understanding of the meaning of the code.

During the focused coding, codes that shared meaning or context were grouped together to form coding categories.[8] Categories emerged from the data, and theoretical sensitivity guided the researcher.[37,38,56] Theoretical sensitivity was applied in the analysis of SHT where it was observed that the patients were not included in the management options, and were told what to do as if they had no autonomy and were not made active participants in the consultation. These behavioural patterns were already described as components of patient-centredness in theory. When no new code categories could be generated from the open coding, it was accepted that conceptual saturation was reached. In this phase, certain subsets of the data lacked depth and richness and needed a more flexible approach and template analysis provided this structure.[57] It supported multiple interpretations and improved the trustworthiness of the coding that emerged from grounded theory research. It could also accommodate the categories that emerged from the initial coding of open-ended questions in the questionnaire and the vignette scenarios. This type of analysis is used in organizational and health research where large quantities of data must be managed and some data represent fixed structured concepts. As some of these subsets were already well known and

defined concepts, the data were then deductively arranged into the categories e.g., the WPBA frameworks, communication skills, disease, and management strategies. Template analysis allowed the researcher to tailor it to match this research study's need to build the code hierarchy to develop the richest data. [57] At this point the multimodal content analysis was influenced by both inductive and deductive reasoning.[58,59] These subsets of interpreted data could then be analysed with descriptive and inferential statistics or thematically.

#### 3.7.2.3 **Searching for themes**

A grounded theory approach was used to analyse the qualitative data and identify emerging theoretical themes. As the data from the interviews, fieldnotes and recorded consultations were analysed, codes were compared with themself and new data were systematically compared to the existing data set.[8,60] This included comparisons with the quantitative data outcomes (constant comparison or iterative cycle). As this study collected data at multiple points to explain SHT during the consultation, this constant comparison facilitated the development of the emerging themes.[61] Major or main categories or themes identified for one objective, became sub-categories when looking at the bigger picture. This meant that constant memoing and data comparison could either inflate or decrease the importance of a category or combine the categories to form a broader concept. Focussed (axial) coding was used to develop a conceptual framework of the interpreted data.[62] It was used to make connections between the categories and subcategories which resulted in the description of the SHT process depicted in Chapter 10 and Figure 10.10.

#### 3.7.2.4 **Reviewing themes and defining and naming themes**

Various theoretical themes emerged from the categories obtained from different data points referring to different aspects of the patient doctor interaction. Reviewing all the themes led to a story emerging from the data. This story formed the basis of the emerging theory and will be described in the discussion chapter. Continuous review of the coding, categories and themes were completed with the assistance of the reviewer team.

## 3.8 **QUANTITATIVE DATA**

A statistical approach was used to analyse the quantitative data, such as patient and doctor characteristics, presenting complaints, diagnosis, medication, trust in doctors, both patients' and doctors' perceptions about discussing sensitive and sexual matters, as well as male and female sexual dysfunction. The SAS (SAS Institute Inc, Carey, NC, USA) Release 9.4. software was used to analyse the descriptive statistics and perform the Fischer exact test. The Shapiro Wilk test was performed to test for normalcy of the age distribution of the sample using the same software. These data were complementary to the qualitative data.

Although it has limitations of generalizability and the scope of statistics that can be used, qualitative data can be changed into categorical variables and statistically described.[63,64] Data such as the open-ended questions on the questionnaires, and the vignette scenarios, that lacked depth and richness were analysed quantitatively. Categories were quantified and transformed into variables.[65] Descriptive statistics was used to calculate frequencies; the Fischer exact test was bused to calculate p-values for comparative data of the study participants and the reference group.

The recorded consultations were also assessed with the WPBA tool[33] to assess communication and holistic practice. The WPBA template comprised a checklist exercise where qualitative categories of communication and holistic practice acted as a form of priori or template coding. Quantitative content analysis of this data provided descriptive statistics with confidence intervals for every category in the WPBA. Similarly, the five SHT recordings were analysed with an SHT algorithm[36], and detail with regard to the SHT was documented. Both these quantified tools were used to compare and support the qualitative findings.

Template analysis, a style of thematic analysis used in grounded theory research, was deemed the appropriate option where the important interpreted themes from the data set was organised in a meaningful and useful manner. It has also been postulated that quantification or semi-quantification of qualitative data improves the transparency of data analysis, gives precision to statements or themes and creates the opportunity for patterns in the data to clearly emerge and provide focus.[66] It highlights patterns and frequencies in patterns in the interpreted data and is not useful to use for distributions and generalizations.

## 3.9 ETHICAL CONSIDERATIONS

The study was approved by the Human Research Ethics Committee (Medical) of the University of the Witwatersrand (M160557) (Appendix 19), as well as the Facility managers and the Directorate Research, Monitoring and Evaluation, Dept. of Health, North West Province, South Africa. (Appendix 3).

The researcher and the research assistant do not work for the Department of Health and had no authority of any kind over the patients and doctors who participated in this study that could influence their willingness to participate, or not participate, in this research study. There was also no reporting obligation to any clinical structure in the North West Province regarding the research outcomes, or identity of clinics, doctors, or patients. The Directorate Research, Monitoring & Evaluation of the North West Province Department of Health requested only the final conclusions and recommendations of the study that could influence policy and planning to improve health care. The nature of data management secured confidentiality and no clinic,

patient or doctor could be identified. However, due to the small number of doctors working there, they could be identified by association. As many doctors rotate through the clinics, community health care centres and hospitals in the district at any given time, it would be more difficult to identify an individual to be at the research setting at the time of data collection.

Consent was explained and obtained in the language of choice of patients. Patients' dignity and confidentiality were respected, and all briefings and questionnaires were conducted in a private space. The researcher was aware of the dilemmas that can arise from researching sensitive or taboo issues. These include personal boundaries, written consent, the silence surrounding these sensitive topics, and the emotional investment in qualitative research, all familiar issues.[67–70] This was then also a consideration in the decision to use SD questionnaires that patients could complete themselves. Being perceived as a sensitive or taboo topic, a qualitative inquiry regarding SD symptoms could violate personal boundaries and it would be difficult to accommodate personal preferences, such as unique disclosure styles and individual perceptions about privacy and would have left the patient without a feeling of control.[68] The written consent was taken by the research assistant who did not have access to the patient file. If the patient used a pseudonym for the consent, the researchers would not have known. The researcher received the patient file and facilitated the recording, after receiving the confirmation slip and patient's research number from the research assistant. All questionnaires were anonymous, and recordings were allocated numbers. Transcripts were allocated the same numbers, and any identifiers (e.g., where a doctor used a patient name) were removed.

Both the researcher and research assistant were aware that a person who is distressed may lose their capacity to request withdrawal from a study; therefore, if anyone appeared distressed, the research process would have been terminated.[68] The only distress identified in the study, was that of a transgender couple who falsely presented with diabetes to tell their story. Upon receiving the file, it was evident they did not meet the inclusion criteria, Unfortunately, the patients had to be excluded from the study, but due to their distress and serious need for help, the researcher arranged for a private consultation with a sexologist in a nearby town.

The nurses assisted with identifying patients eligible for the study after the researchers presented the information talk. They would separate the files of eligible patients to allocate to the doctor whose consultations were being recorded, where possible. It is important to note that there was no continuity of care in the clinics and that patients were randomly allocated to doctors. The nurses had access to the content of the files as part of their daily service to patients and they allocated files to doctors as they saw fit. No file was handled by

the researcher without explicit consent of the patients. Some patients consented but upon examining their files they proved not to be eligible and were excluded after recordings. Twenty nine participants were not eligible and were thus excluded in this way. Despite nuanced power dynamics in a clinic, the patients still felt free to decline participation and a total of 56/540 (10.37%) used this right to decline. Patients in the clinics queried the researchers if they were not recruited, which resulted in field changes being made to communicate more clearly about recruitment and eligibility when informing all the patients about the study. Patients verbalised their enthusiasm to have University staff visiting the clinic as they believed that they were often examined and got better care when such visitors were present. No reason for their decline was asked as patient autonomy was respected. In hindsight, if the reasons for decline had been documented, they could have been study findings.[71]

Due to the prevalence of sexual violence in South Africa, it was important that the participants, research assistant, and video and coding reviewers were briefed on the specific sexual content of the questionnaire. Survivors of sexual violence or a person with a value conflict regarding the nature of the research could withdraw from the study.

Initially the specific focus of the research, namely sexual history taking, was blinded for participants, so as not to sensitise them and influence the consultation. Patients were informed about the nature of the research study after the consultation, before completing the SD questionnaires, and could withdraw from the study at that point. No patient withdrew. Doctors were informed at the end of the recordings in the debriefing interview and could then withdraw, and no doctors withdrew. From a moral perspective, it is important to ask if it was deception, omission or covertness not to inform participants on the SHT nature of the study.[72] The patient information sheet referred to sexual health as background to the study; the specific focus of SHT for sexual dysfunction was omitted or concealed in order to not influence the research outcome. If SHT was clearly mentioned to patients and doctors in the consent process, and not hidden by referring to the content of the consultation, the research study would not have been possible. Yanow *et al.*[73] encouraged a researcher to reflect on if the deception or omission caused undue distress that the participants would have been unable to avoid otherwise; were they properly debriefed, and was the research possible without this deception or omission? This research study was not possible if the true focus of SHT was not concealed for doctors as it would have sensitized them to consult in a different manner; the research related distress participants experienced could not be avoided whether they had knowledge of the true focus or not, as the research methodology was the same and the associated distress, if present, still applicable; the doctors specifically had a debriefing session in the form of reflective interviews. In these reflective interviews they had a further

opportunity to withdraw from the research. Patients experienced an indirect debriefing with the disclosure of the true nature of the research and completion of SD questionnaires. They were allowed to share their stories which were documented. Doctors and patients had the right to withdraw after they were informed about the sexual dysfunction and history taking focus.

The video recordings were made with the patient's dignity foremost in mind. The camera angle was set not to include the examination area – especially in consultation rooms that did not have curtains to secure privacy.

To ensure confidentiality and anonymity, no audio or visual material of these recordings were shared with any person other than the transcriber and the reviewing panel. The actual recorded material and raw data will not be used or presented in any forum and will be destroyed in 2023 by deleting all files on the external hard drive on which the data were stored. This period of six years after ethical clearance was obtained or two years after publication, is determined by the Human Research Ethics Committee (Medical) of the University of the Witwatersrand. The results of this research study were and will be disseminated in published or publishable articles in academic journals, and academic conferences.

Consent was obtained to review the patient files in the clinic. The researcher was not aware that patients also had "patient retained files" or notebooks and thus could not access that information. Patients had three clinical documents at that point: the patient retained file, and the old and new format clinic file – also see Section 3.11. Due to doctors not documenting information such as presenting complaint, laboratory results or medication in all three the patient files, some information was missing.

The Human Research Ethics Committee (Medical) of the University of the Witwatersrand and The Directorate Research, Monitoring & Evaluation of the North West Province Department of Health were informed of the sensitive nature and methodology of this study and the effect exploring such a topic can have. They were satisfied that the necessary safety nets and stress protocols were integrated into the research study. The researcher respected patient and doctor boundaries, as well as personal boundaries and employed reflexivity to deal with the moral dilemmas experienced.[67,69,70] These moral dilemmas proved to be not related to the research topic, but witnessing poor work ethic, poor governance, medical negligence where a doctor refused to save a life, and poor patient care. A reflective article on these dilemmas is planned.

## 3.10 ENSURING RIGOUR

Grounded theory has its own strategy to enhance rigour which overlaps with qualitative processes. Several strategies to enhance rigour were implemented in this study.[64,74] The first strategy, to secure repeatability, was a step by step and detailed description of the tools and data collection process. The analysis of both qualitative and quantitative data were clearly documented. Trustworthiness of this study is strengthened by credibility, transferability, dependability, confirmability and reflexivity.[75]

Credibility and dependability were ensured by using several data collection methods. Credibility as defined by Chiovitti *et al.*[76] was ensured by documenting the SHT process as well as the meanings participants and the process added to the SHT process. In this study it was not possible to return to the patients to verify information, but due to multiple points of data that were collected, the codes could be compared to verify the meaning. In their reflective interviews, the doctors could revisit consultations to check and verify the interpreted data collected at that point. Credibility was also enhanced by writing memos and daily field notes to document personal thinking and observations.

Consistency or auditability[76,77] was secured by a clear theoretical justification for selecting the patient participants and a purposive selection of the doctors as they were key role players in the SHT process. Tracking sheets also accounted for daily encounters and daily documentation of processes and experiences as documented in memos. Auditability[76] also refers to the thinking criteria of the researcher. In this study the researcher had a few questions that repeated themselves every step of the way, namely, what is the context of the observed action; is the interpreted code related to another code, and if so, how; what are the non-verbal and verbal communications about SHT; what facilitates SHT in what is seen and heard; what patterns of codes pop up; and lastly, how do these codes interact with each other?

Methodological triangulation of data was performed to ensure that different methods give similar results to increase the study's confidence.[77,78] Triangulation also contributed to confirmability. In study one this was done through review of the recorded consultations to observe SHT or disclosure of SD, the objective measurement of SD in patients with the questionnaires, and the hypothetical patient scenarios to determine if SD is part of the clinical reasoning of doctors. The interviews with the doctors were a debriefing and the final method to obtain their perspective and to assess if it was in line with observations. Being with doctors and patients the entire day for nine weeks, making field notes, ensured that the researcher was embedded in the process.

Regular meetings with research supervisors, a team of doctors and a public health specialist, were used to review interpreted data to ensure referential adequacy. Excerpts, codes, and themes were discussed and agreed on to ensure the credibility of the codes. Even at the time of finalising the research articles, the codes and themes were revisited and discussed by the research supervisors, reviewing team and researcher to ensure agreement on the meaning of codes and categories, as well as their organisation. Rigour is inherent to the inductive-deductive cycle of grounded theory.[79]

Fittingness or transferability is ensured if the study is methodologically feasible.[76] From a theoretical perspective, patients living with diabetes and hypertension have sexual functioning challenges and SHT is not often or optimally done in primary care, and therefore this study's results may apply to other rural primary care settings and patients living with diabetes and hypertension. The findings of this study were derived from the data collected and can be confirmed by other researchers following a similar methodology. The methods are described and documented in such a way that they can deliver the same results in another context on the condition that the health care service functions in a similar way. The level of theory generated must be tested further to ensure it reached theoretical adequacy and therefore fittingness may be limited to rural primary care in the North West Province at this stage. The findings in this study must be tested in other settings which then can support transferability or not. Nonetheless, a study in Ghana found that congruence in a study relating to participants' experiences and beliefs were more important than the transferability of a study,[56] similarly the value of this study must be as a starting point for research in SHT.

It is inevitable that previous knowledge or experience transfer to interpretations of data, however, reflexivity can prevent that it distorts the perceptions of the data.[80] The research assistant and researcher used a reflexive journal[81] for field notes to document the nuances of their experiences. The study did not lend itself to in-depth and comprehensive note taking[31], although the researchers documented valuable information enriching the articles. The field notes, which will be reflected on in a future article co-authored with the research assistant, will report on the more salient observations that contributed to the health setting culture and patient care quality.

The researcher completed the COREQ (Consolidated criteria for reporting Qualitative research) checklist, shown in Appendix 20.

## 3.11 **REFLEXIVITY**

Reflexivity is part of trustworthiness and therefore, an integral part of the research process. Being personal experiences, the decision was made to write the section below, regarding reflexivity, mostly in the first person, as it was a personal research journey focussing on a topic which is considered by many a sensitive and private subject.

### 3.11.1 **Axiological Assumptions**

In a qualitative study, it is important that the researcher declare any axiological assumptions. As this is highly personal it will be written in the first person. I, the researcher, grew up in a conservative Afrikaans family with a strict Calvinistic value system. Sex, gender, politics, and religion were forbidden conversation topics in the family or between friends. Sex education in adolescence was limited to a booklet on reproductive health and self-care. After completing school, I chose to become a social worker. This was a new world where all the unmentionable topics became the reality of everyday life and caused both admiration for their importance and value conflict in discussing it. I realised that what I thought I knew was not always the truth, which was at times upsetting, but also enriched my thinking and understanding of life and led to an open-mindedness about life and all its facets. Tolerance and inquisitiveness to the meaning of these things became part of daily life and practice. I developed a respect of how similar life events played out differently in various households.

My past experiences shaped my interpretivist / constructivist views whilst the scientist in me identified with more pragmatic views. All of this influenced my choice of research design.

### 3.11.2 **Reflections on the Research Design**

From the outset it is important to note that this research study was for degree purposes and timebound. I understood from the very beginning that it would not be possible to follow a pure grounded theory route and it would be unlikely to end with a clear theory. At best I was hoping for an emerging theory that could be developed over time. While collecting data, many routes that could enrich the data were identified, but due to time constraints, I had to adhere to the research plan, setting these aside for later exploration. Grounded theory consists of certain key elements[82] that the researcher complied with:

- The researcher identified a process and constructed a visual model.
- The researcher generated a theory or set of hypotheses.
- There was a link among the data, categories, and theory and an explanation for variances.
- Memoing was used and contributed to the choice of theoretical framework.
- The researcher used a constructivist grounded theory.
- The research was relevant.

Starting off with grounded theory was exciting, and as time passed, I realised that there is still a lot more to learn about the method and how it can enrich my research topic. I was still balancing between concrete and abstract aspects and have barely scratched the surface of the effectiveness and strengths of grounded theory. I did not choose a theoretical framework in the development phase of the research and relied on the theory to emerge from the data. As I was becoming more familiar with grounded theory and the realisation that I could not ignore the pre-existing reality, the necessity of it was clear. My research questions could have been framed more effectively and the dissemination of the data could have been more aligned with focussed objectives. On the other hand, I may have missed the system factors as that was never in my scope of factors playing a role in SHT. What a learning journey!

It was difficult to avoid what was already known. Although this knowledge could increase the risk for researcher induced prejudice, it also prevented following dead ends. It was important to focus on the objectives of the study to limit prejudice or favouritism. Grounded theory is not easy and is time consuming. I felt at times as if I were drowning in data, with little to direct on the coding; no guideline on coding clearly explained what must be done, and how to select descriptor names for the coding. There was also the risk of interpreting rather than documenting the observations. I referred to saturation in the research proposal for SHT, but then having the data experienced an uncertainty to conclude if it really reached saturation or not; this despite analysing the theoretically calculated 151 consultations – every person brings after all their own uniqueness to the research. Perhaps it was the best data one will get, or the only data one will get? At times, I doubted the methodology – perhaps it was just an old-fashioned mixed method study.

I was not alone in these doubts and uncertainty. Many researchers described these conflicting and confusing thoughts or experiences.[7,9,12,83–86] Goulding[87] suggested "*While there is nothing that prohibits the combination of quantitative and qualitative forms of data collection when using grounded theory, the purpose of each should be made clear. Grounded theorists do not follow the traditional quantitative canons of verification. They do, however, check the development of ideas with further specific observations, make systematic comparisons and often take the research beyond the initial confines of one topic or setting. It is proposed that it is because they make systematic efforts to check and refine categories that their efforts are sometimes confused with quantitative techniques … Nonetheless, grounded theorists strive to develop fresh theoretical interpretations of the data rather than explicitly aim for any final or complete interpretation of it."* (p.16)

More recent developments in grounded theory convinced me about the place of mixed methods in grounded theory. More so, where it is difficult to get the detailed information

required, and more cycles of constant comparison must take place. In this study, the emerging interpreted data were often familiar and comparable with existing frameworks, but the explanation for it and the coherence of how it fitted within the SHT process, were new information. In line with Charmaz's[9] construction of grounded theory, the entire grounded theory cycle was not completed. Figure 3.11 shows the grounded theory process as understood by the researcher where A and B represents inductive, deductive, and abductive analysis and constant comparison; C represents where this research study ended after a theoretical direction had been identified and the following up of previous and other findings such as comparison with the quantitative findings. It is recommended that the emerging theory be explored further to develop a functional theory of SHT.

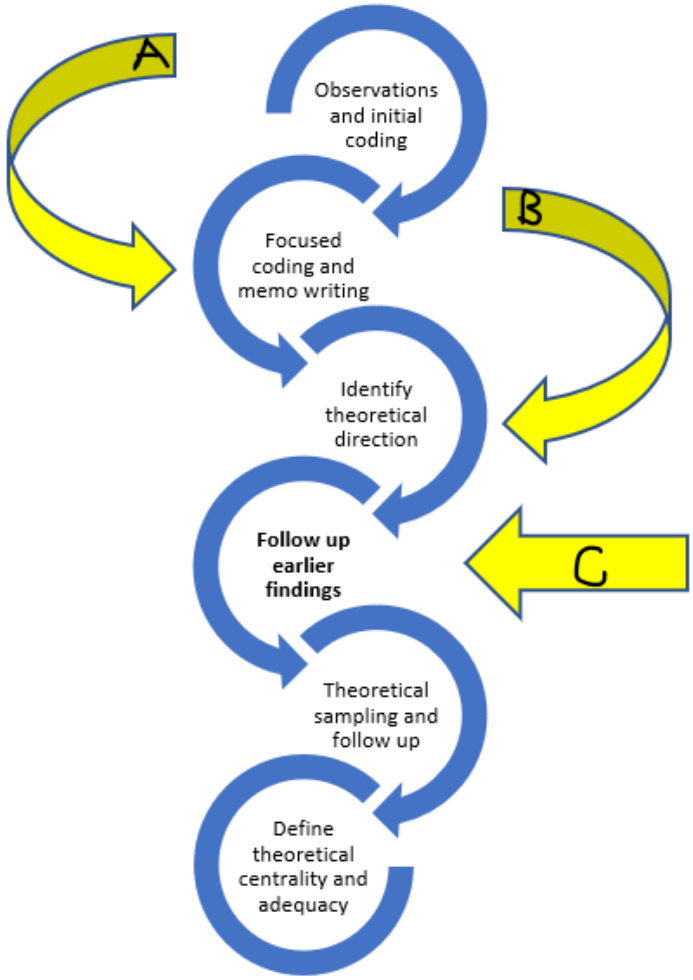


**Figure 3.11: The Grounded Theory Process and where this Research Study fits in this Process as Compiled by the Researcher**

A and B represents inductive, deductive, and abductive analysis and constant comparison

*C represents where this research study ended after a theoretical direction

I will explore this study design further in future and will be more prepared to take full advantage of this versatile method. Grounded theory as a method unlocked important data in this study that must explored further; more importantly, I became aware of the power of the method.

### 3.11.3 Reflections on the Data Collection Process

The researcher anticipated in the research proposal that 15 doctors would agree to participate and do ten consultations each. This was unrealistic. In the first place, it was difficult to obtain ten consultations per day due to operational challenges. Doctors did not always consult the 15 to 25 patients per day as communicated in the planning phase. In some settings, doctors only arrived at work between 10h00 and 11h00, by which time the nurses or clinical associates had consulted the patients, and few patients remained for the recording. Sometimes the doctor was called to assist with services in another clinic, and the research team (researcher and research assistant) then either forfeited the number of consultations or did not have consultations at all. The research team also had to return to settings to complete a reasonable number of patients for the doctor when they were called away. It also happened that doctors were absent due to illness. Some doctors also declined or provided excuses on the day the research team arrived, despite committing previously to participate. Participation was voluntary, and when not receiving a direct decline, the research team accepted, after no response to messages to their mobile phones and two face to face or telephonic attempts, that the doctor was not interested.

Patients were consecutively recruited and thus there was no control over the number of men of women. Despite a high number of bookings, patients did not always arrive. It was noted that it was winter, which discouraged patients to consult unnecessarily. After the second clinic the research team had to revise the information strategy as some patients were upset that they were not asked to participate in the study. The research team then had a general information session in the waiting room where they informed patients of how the research study worked and what our inclusion criteria were. That satisfied the patients, and the recruited patients then received the full briefing in a one-on-one private session to decide if they wanted to participate or not. The research team were surprised by the patients' willingness to participate and the need to tell their stories.

What was difficult to observe was how health care workers treat patients. Work ethic was problematic with some doctors arriving after 11h30 at the clinic, some only saw two patients and then went on lunch not to return. The atmosphere was not always friendly and welcoming, and patients were often equated to a file – no file, no patient, no consultation even if the patient was critically ill. The research team experienced a patient's demise after

the doctor did not think it important to consult the patient when they made him aware that the patient was deteriorating in the waiting room waiting for a file; the very same doctor refused to assist the intern in resuscitating the patient an hour later (they decided not to include this doctor in the sample of doctors of this study). The research team had patients thanking us for doing a research study at the clinic as they believed they had received better care when there is research study at the clinic. This was not only an onslaught on the researcher's personal value system regarding patient care, work ethics and professionalism, special care had to be taken to ensure that these experiences did not influence her judgement in analysing data.

### 3.11.4 Reflections on Writing up the Research Study

The biggest challenge was to interpret the data. First, it was the inductive process of deconstructing the interaction between the doctor and the patient; that was, in hindsight, quite easy. To construct a meaningful theory was the more difficult part. During analysis and memoing, the picture of the theory emerged in the researcher's mind, and she had to work hard not to interpret findings at that point. When it had to be interpreted, "I doubted my thoughts". Interaction with reviewers and supervisors helped the researcher through this strenuous time. The researcher strived for perfection but was left with more questions than answers.

## 3.12 STUDY LIMITATIONS

The complexity of human sexual behaviour: A questionnaire such as FSFI or IIEF, has certain psychometric properties to identify certain patterns to facilitate conclusions regarding sexual dysfunction, but it cannot be considered the absolute or only truth regarding the complexity of human sexual functioning. The questionnaire also did not measure the cause or consequence of sexual dysfunction.

Criterion bias for the measurement of SD: The FSFI was developed using the DSM-IVTR criteria for the different types of female sexual dysfunction. These types were collapsed in the DSM-5 to create broader sexual dysfunction categories, and no new standardised questionnaires have been developed since. The interpretation of the questionnaire was limited to the working definitions of sexual dysfunction in the questionnaire. The latest review on the IIEF questionnaire questions the structural and construct validity and internal consistency of the questionnaire.[88] Similar measurement properties of the FSFI was also recently queried.[89] For the purpose of this research study the questionnaires were only used for triangulation of the data to confirm if patients experienced any sexual dysfunction symptoms and not to determine specific sexual disorders. Using the questionnaires also highlighted the potential cross-cultural use of standardised questionnaires. As the IIEF and

FSFI questionnaires were not validated in South Africa, they must be interpreted with caution; however, both scales used clinically standardised and globally accepted criteria for sexual dysfunction and thus their transcultural use is not likely to be problematic.

Cultural or normative expression: Values and culture determine how humans respond to sexuality, more so how researchers engage with concepts such as sexuality and sexual health. These may influence how the participants perceive it or express their opinions, as well as how the researcher interpreted the observations. A team of reviewers helped to ensure trustworthiness of these interpretations. Cultural perceptions about sexuality and sexual dysfunction were not within the scope of this research study. The researchers, however, could not ignore the effect cultural perceptions have on the participants and that culture plays in the presentation, help seeking and even SD of patients; and must be explored in the future building of this theory.

Data favouritism: It was important in the study design to keep an open mind and thus not to stick to familiar concepts, but also to pay attention to data that appeared as if they did not belong, as this could be new emerging information. Open or initial coding and memoing, as well as a review panel safeguarded against favouritism.

Hawthorne effect: Participating in research cannot be considered a non-event and the mere awareness of it could influence disclosure of sexual challenges or communication congruence during the consultation. It can be postulated that doctors' observed performance was better than their usual behaviour because of this.

Personal prejudice: From the researcher's perspective, personal prejudice was most likely the most difficult to keep in check. It was a constant question of "what do I see/hear, why do I think I see/hear it, against what do I measure or assess, and is it my personal preference or part of a range of acceptable behaviour". The expert review panel assisted in ensuring trustworthiness in this regard.

Recording limitations: The researcher's initial idea was that doctors did not record information on files, either by their own omission or on the request of the patient. The limitation of recording was, however, at another level. The patients had a personal file that was kept in the clinic, they also had a brown script notebook as a patient retained record, and the province at that time tried to implement a new patient file, known as the "blue or pink book" (blue for men and pink for women). This means doctors had to write all the information three times, which they admitted they failed to do most of the time. This meant that information

extracted from the file, such as, BMI, weight, and height, was often incomplete. These data could not be used to supplement other findings as initially planned.

Sample restrictions: It could be that the doctors who were not willing to participate in this study did so because of the recording of actual consultations, and that caused that optimal or better consultations were not observed. To compensate for this, as many doctors as possible were recruited to participate, to observe a variety of consultations with different patients.

The hypothetical scenario study had additional limitations. The nature of a vignette design could be an information bias or limitation if not appropriately designed. Real patient information, where sexual dysfunction was diagnosed, was used to design the scenarios. No questions for more information were raised or changes suggested in the pilot study. The researcher had to assume that each vignette was comprehensive enough to give the doctor sufficient information. None of the doctors asked for clarity while completing it for this study. The vignette design is supposed to reflect practice, but if the design is not comprehensive enough it can be a limitation. At a minimum it could reflect clinical reasoning and knowledge.

The scope of the study did not include determination of patients' help seeking behaviour on sexual challenges, as well as health beliefs about sexuality and sexual dysfunction, to formulate a theory. The same goes for doctors on training in the African context about egalitarian healthy human sexuality and their own sexual agendas, and how these influence their hierarchy of priorities on sexual rights, wellbeing and screening and management of the patient. Although not the focus of the study, these must be considered as an invisible influence on the dynamics described in this study and cannot be ignored as a possible constraint.

## 3.13 CONCLUSION

The researcher's background and experience motivated the research topic and philosophical approach. The methods of this study were infused with interpretivism. The methods allowed for data collection from different sources, namely, the patient and illness, the consultation, the doctor, and the setting with an objective assessment of sexual dysfunction symptoms. The methodology contributed to a comprehensive story of the interaction between and a doctor and a patient regarding SHT during a routine consultation and the different levels of reality attached to it.

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# CHAPTER 4

## 4. ARTICLE 1: PATIENT-DOCTOR INTERACTION INHIBITS SEXUAL HISTORY TAKING IN ROUTINE PRIMARY CARE CONSULTATIONS IN NORTH WEST PROVINCE SOUTH AFRICA. (UNDER REVIEW)

This original research article was submitted to ***African Journal for Primary Care and family Medicine***. Tables and figures were placed in the appropriate places for the purpose of this document, and references and general formatting were aligned with the requirements of the specific journal.

This article presents the quantitative outcomes of sexual history taking during routine consultations in primary care. It describes the participants and assesses the consultations with a standardised tool.

**Sexual history taking in rural primary care in South Africa: Patients at risk of sexual dysfunction overlooked.**

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***Background***

Doctors have a clinical and ethical obligation to screen patients for sexual challenges, whether due to sexual risk behaviour or dysfunction. It seldom occurs during a chronic care consultation and this research focus on consultation interaction factors contributing to failure to screen for sexual dysfunction.

***Aim***

This study observed and described sexual history taking during routine consultations in primary care settings and aimed to identify if patients wanted to discuss sexual issues with doctors and possible barriers to sexual history taking. This study also assessed the nature of communication and holistic practice of doctors in these consultations.

***Methods***

The consultation recordings were qualitatively analysed. Doctors and patients completed self-administered questionnaires. A structured workplace-based assessment tool was used to assess the communication skills and holistic practice doctors demonstrated during the consultations and the qualitative outcomes were quantified.

***Outcomes***

The frequency and nature of history taking for sexual dysfunction, communication skills and holistic practice, the level of openness to discuss sexual challenges, and barriers to sexual history taking identified by doctors and patients.

***Results***

Twenty-one doctors participated in video recorded routine consultations with 151 adult patients living with hypertension and diabetes, who were at risk of sexual dysfunction. No history taking for sexual dysfunction occurred. Consultations were characterised by poor communication skills and the lack of holistic practice. Patients identified rude doctors, shyness, and lack of privacy as barriers to sexual history taking, while doctors thought that they had more important things to do with their limited consultation time.

***Clinical Implications***

Overall, sexual dysfunction in patients was entirely overlooked, which can have a negative effect on biopsychosocial wellbeing and led to poor patient care.

***Conclusion***

The study provided information on routine consultation interaction that inhibits sexual history taking or discussion of sexual challenges and is relevant to primary care in a rural setting.

**Keywords**:

Sexual history taking; routine consultation; holistic practice; communication; patient-doctor engagement; diabetes; hypertension; sexual dysfunction; trust.

## Introduction

Globally, doctors' practices are directed by country-specific and consensus guidelines for sexual health.[1,2] In South Africa, doctors should be steered by national guidelines for sexually transmitted infections and human immunodeficiency virus (HIV), as well as best practice standards that combine the guidelines of the International Society of Sexual Medicine, and the recommendations of the International Consultation of Sexual Medicine-5 (ICSM-5), amongst others.[3,4] In terms of these guidelines, sexual history taking is considered an essential element of clinical practice. Kok[5] suggested that failing to take a sexual history, or not delving into sensitive discussion topics during the consultation, can be an omission of beneficence, and could even be considered a sign of negligence. When sexual history is not explored, many diabetic and hypertensive patients continue living with complications of their disease and medication, with no management of sexual challenges.[6-9] In order to manage sexual challenges, doctors must screen for reproductive health issues, sexual risk behaviour, sexual dysfunction, and sexual trauma.[5] Screening for sexual dysfunction is also clinically prudent, as evidence shows that it can be a biomarker for cardiovascular health.[5,10]

A principle of Family Medicine is that every contact with the patient is an opportunity for health education and prevention of disease, which creates the expectation that screening will be conducted.[11] Research suggests that only 10 – 58% of doctors globally conduct routine sexual history taking.[12,13] A study in Nigeria found that 38% (*n*=187) of doctors claimed that they would take a sexual history, **even** if the patient did not raise the issue.[14] Less than 70% of doctors in Ireland felt comfortable discussing sex with patients.[15] Conversely, Kingsberg[16] postulated that 71% of American patients feared their sexual complaints would be dismissed during a consultation. Common reasons given by physicians for not taking a sexual history are time constraints, experiencing or causing embarrassment, underestimating the prevalence and impact of sexual dysfunction, and different expectations of who must initiate such a discussion.[5,17,18] Between 14 – 20% of patients disclose sexual dysfunction during a consultation.[19-21] When patients' complaints were often dismissed or their needs were not met, they experienced a low quality of life.[22-24]

Failing to offer a comprehensive or informed service to patients can lead to harmful compensatory behaviours. Globally, culture still shapes perceptions and life patterns, and it precipitates the use of traditional methods and practices to enhance sexual functioning, some of which may be harmful to the patient.[25,26] A systematic review of studies on intimate partner violence and sexual health concluded that sexual risk-taking, infidelity, sexually transmitted infections, and sexual dysfunction

were associated with domestic violence.[27] The consequence of non-diagnosis or non-management of sexual dysfunction is unquestionably detrimental to the patient's biopsychosocial well-being.

This research was motivated by the consequences of sexual dysfunction, as well as the fact that the primary researcher did not observe screening for sexual dysfunction when students at a tertiary training facility carried out observed consultations. The occurrence and nature of sexual history taking in rural primary care settings in South Africa needed to be investigated. The research questions were what were the frequency and nature of sexual history taking during routine consultations; what single barrier to history taking did patients and doctors identify and did the doctors have good communication skills and practice holistically?

## Materials and methods

### *Aim and objectives of the study*

This study observed, described, and sought to understand sexual history taking during routine chronic illness consultations in primary care settings in Dr. Kenneth Kaunda Health District, North West Province, South Africa. The objectives were to determine if history taking for sexual dysfunction took place, and if so, to analyse it. This study also intended to identify if patients wanted to discuss sexual issues with doctors, as well as the most important barriers a patient and doctor experienced in discussing sexual challenges during the consultation. Lastly, the study planned to assess the nature of communication and holistic practice of doctors in these consultations.

### *Method*

This was part of a grounded theory PhD study analysing video-recorded consultations between primary care doctors and adult patients (> 18 years of age), who were at risk of sexual dysfunction due to their diagnosis of hypertension and/or diabetes.[28] The study consisted of different components, namely, (1) the observation and analysis of recorded consultations, (2) determining the proportion of the patient participants living with symptoms of sexual dysfunction, and (3) interviewing both doctors and patients on their perceptions of sexual history taking. This article describes some quantitative aspects of this study.

The setting, Dr. Kenneth Kaunda Health District, in the North West Province, South Africa, is mainly a rural area with mining and agricultural activities. Dr. Kenneth Kaunda District covers an area of 14 767 square kilometres, has a total population of 807 252, and renders government financed primary

care services to a population of 707 479.[29] Patients have free access to primary care services. Nineteen percent of the population are unemployed and 14% of the households live with R400 (approximately €22 or $27) and less per month at the time of the research, which meant they did not have the resources to consult privately.[29]

The sampling approach employed in this study was a stepwise process addressing the primary care clinics first, then the doctors, and finally the patients. Primary care in South Africa is nurse-driven, and many clinics operate without doctors. For inclusion in this study, a clinic needed to have a doctor visiting at least once a week. Eleven out of 26 clinics and nine community health centres were identified as meeting this criterion, of which managers of two clinics declined permission for their facilities to be included, leaving nine facilities in the sample. All 28 doctors working in the selected healthcare sites at the time were recruited to participate in the study. Twenty-seven doctors initially agreed to participate, but when the actual moment of video-recording arrived, six withdrew. Of those who declined, one doctor did not honour his appointment on two occasions, without any reason; one committed and then avoided the researcher; and the other four did not feel comfortable doing an observed consultation.

Once the doctors had been recruited and had consented to participate, patients were recruited. Consecutive adult patients living with diabetes and hypertension were purposefully selected, based on their theoretical high risk of sexual dysfunction in this population. Determining the number of consultations to observe sexual history taking events was based on the midpoint of the disclosure rate of sexual dysfunction if asked, which varies between 14 – 20%,[19-21] and that formed the basis for sample size calculation.[30-32] The sample size calculation was completed calculated using an expected rate for history taking of 0.17 and an accuracy level of 0.06, $n=p(1-p)[1.96/a]^2$ where p = proportion expected disclosure rate or history taking (0.17), and a = accuracy as a proportion (0.06), leading to an expected sample size of 151 consultations.

Five hundred and forty patients who consulted 21 doctors in 10 primary care sites over nine weeks, during 2018 were informed about the study while sitting in the health facility waiting room. The trained research assistant (a student at a tertiary institution) recruited 236 consecutive patients after they collected their files and of these, 151 gave written consent to participate. Fifty-six patients declined participation and their reasons for declining participation were not documented, seeing as participation was voluntary. Another 29 patients were excluded due to incomplete consent forms, non-completion of all the questionnaires, or leaving before completing the full process.

The research assistant was responsible for recruitment, obtaining consent and research administration, such as completion of tracking sheets, as well as facilitating the completion of the demographic and sexual dysfunction questionnaires The primary researcher was responsible for management of the recordings, the completion of the biographic questionnaire (clinical information from the patient file) with the doctor, and the management of the patients' prescriptions, so that they were not delayed at the pharmacy. Both the primary researcher and research assistant were involved in the information sessions and kept field notes. The research assistant obtained consent for both video-recording of the consultation and the completion of the questionnaire following the consultation. Doctors and patients were informed that the content of the consultation would be analysed, without reference to the focus on sexual history taking to not influence the consultation outcome. Patients who were too sick to participate and those who left directly after the consultation without completing the questionnaire were excluded from the study. Video-recording was conducted using a laptop-mounted camera, which focused on the patient and doctor, excluding examination areas. Recording was activated and deactivated on entry and exit of each patient. The researcher was not present during consultations. The researcher ensured that the patient did not experience any delays, such as losing their place in the queue or extended waiting periods for medication, due to the research participation. Following the recording, the patient consented to complete the widely used Female Sexual Function Index (FSFI) or International Index of Erectile Function (IIEF) questionnaires.[33,34] These questionnaires have been used globally for the past 20 years and are still considered effective in guiding clinical practice.[35] South Africa has 11 national languages, and English is not the home language for most nationals. The research assistant speaks five of the national languages and assisted in the recruiting and consenting phase. She explained the definitions of concepts in the sexual dysfunction questionnaires to the patient in their language of choice. The questionnaires were administered in English, as clinical practice occurs mostly in English.

### ***Data Analysis***

#### *Analysis of the recorded consultations*

Consultations were first analysed using open and focussed coding. To support the observations, it was again assessed using the Workplace Based Assessment (WPBA)[36] competence framework of the Royal College of General Practitioners. Template analysis of WPBA framework followed. This assessment was done to determine the 2 out of the 13 competencies namely, communication and holistic practice skills of the doctors in a standardised manner.[37] The assessment has four categories for each competency with descriptors for every category: insufficient evidence, need further

development, competent and excellent. Ninety-five percent confidence intervals were calculated for all the percentages applicable to the WPBA outcomes.

*Analysis of questionnaires*

Questionnaires covered information regarding patient and doctor characteristics, as well as questions on their views regarding the disclosure of sexual challenges. Some questions allowed the doctors and patients to indicate how often the statement applies to them, and one question asked them to identify the most important barrier to sexual history taking. Descriptive statistics were used for patient and doctor characteristics, opinions on sexual challenges and disclosure thereof, frequencies of communication, and holistic practice categories.

### *Ethical considerations*

The study was approved by the Human Research Ethics Committee (Medical) of the University of Witwatersrand (M160557). Clinics were referred to only as site numbers to ensure confidentiality of both the setting and healthcare workers. The Directorate: Policy, Planning, Research, Monitoring and Evaluation of the Department of Health, North West Province, South Africa granted permission for the research to proceed. Permission to use the sexual dysfunction questionnaires was granted by the publishers.

## Results

### *Doctors' and patients' characteristics*

Twenty-one (75%) of the recruited 28 doctors participated. As reflected in Table 1, the doctor participants consisted of 15 men (71%) between the ages of 25 – 67 years (median 39), and six women (29%) aged 25 – 34 years (median 28 years). Four doctors (19%) were African first language speakers and three (14%) shared the indigenous language to the area, namely Setswana. The male doctors had longer work experience than the female doctors (median of 144 months versus 36 months).

Forty-seven male patients (31%) and 104 female patients (69%) of the 540 recruited patients (64% response rate) participated in this study (Table 1). The patients had a normal age distribution, and the sample passed the Shapiro-Wilk test for normality. Only 8% of the participants completed secondary school and/or had tertiary qualifications; 41% had no schooling or attended only primary school. Most of the participants were Setswana speaking, as expected due to the population distribution in the

district. The patients were familiar with the clinics and clinic staff, and only 10 patients (7%) consulted at that clinic for the first time.

**Table 1: Demographic Data of patient participants**

| | Male patients n=47 | Female patients n=104 | Male Doctors n=15 | Female Doctors n=6 |
|---|---|---|---|---|
| Age | | | | |
| Age range | 26-74years | 19-93 years | 25-67 years | 26-34 |
| Mean | 45 years | 53years | 42 years | 29 years |
| Median | 49 years | 55 years | 39 years | 28 years |
| Marital status | | | | |
| Divorced | 3 (6%) | 5 (5%) | | |
| Estranged | | 1 (1%) | | |
| Live together | 5 (11%) | 6 (5%) | | |
| Married | 17 (36%) | 38 (37%) | 9 (60%) | 2 (33%) |
| No partner | 1 (2%) | 23 (22%) | | |
| Separated | 2 (4%) | | | |
| Single | 14 (30%) | 28 (27%) | 6 (40%) | 4 (67%) |
| Widowed | 6 (13%) | 27 (26%) | | |
| Highest level of Education | | | | |
| No education | | 1 (1%) | | |
| Primary School (Gr 0-7) | 19 (40%) | 42 (40%) | | |
| Secondary school (Gr 8-12) | 25 (53%) | 52 (50%) | | |
| After school (College, University) | 3 (6%) | 9 (9%) | 15 (100%) | 6 (100%) |
| Diploma after MBChB | | | 6 (40%) | 1 (17%) |
| Another degree besides MBChB | | | 3 (20%) | 3 (50%) |
| Home language | | | | |
| Afrikaans | | 13 (13%) | 3 (20%) | 3 (50%) |
| English | | 1 (1%) | | 2 (33%) |
| French | | | 6 (40%) | |
| IsiXhosa | 11 (23%) | 9 (9%) | | |
| IsiZulu | 1 (2%) | 2 (2%) | | |
| Mandarin | | | 1 (7%) | |
| Sesotho | 6 (13%) | 18 (17%) | 1 (7%) | |
| Setswana | 29 (62%) | 61 (59%) | 3 (20%) | 1 (17%) |
| Spanish | | | 1 (7%) | |

***Sexual history taking and the consultation.***

Sexual dysfunction was not elicited or diagnosed during the consultations, despite patients living with sexual dysfunction symptoms. Doctors did not ask any questions that could lead to the discovery or exploration of sexual dysfunction. One female patient presented with pain after intercourse, however,

the doctor still did not consider sexual dysfunction as a differential diagnosis. The patients also did not raise sexual challenges.

***Communication and consultation skills.***

On average, communication and consultation skills were assessed as needing further development. Communication with patients was limited to developing a functional working relationship, with the presenting complaint rather than the patient being the focus of the consultation (Table 1). In 32 consultations (21%), the doctors' performance could not be assessed due to insufficient evidence of communication during the consultation. In these consultations, patients were not greeted, and interactions were limited to instructions for examination, to collect medicine, to go for X-rays or to make a follow up appointment. The observed trend in communication was that it was doctor-dependent, as the consultations conducted by a specific doctor followed the same communication pattern, irrespective of the patient in front of them.

**Table 2: Consultation competency according to the WPBA framework for communication and consultation skills[37]**

| **Competency level** | **Descriptor** | **Number of consultations (n=151)** |
|---|---|---|
| Insufficient evidence of communication and consultation skills | From the available evidence, the doctor's performance cannot be placed on a higher point of this development scale. | 32 (21%)<br>CI [15% - 28%] |
| Needs further development of communication and consultation skills | Develops a working relationship with the patient, but one in which the problem rather than the person is the focus. | 54 (36%)<br>CI [29% - 44%] |
| | Produces management plans that are appropriate to the patient's problem. | 33 (22%)<br>CI [16% - 29%] |
| | Provides explanations that are relevant and understandable to the patient, using appropriate language. | 14 (9%)<br>CI [6% - 15%] |
| | Achieves the tasks of the consultation but uses a rigid approach. | -- |
| Competent communication and consultation skills | Explores the patient's agenda, health beliefs and preferences.<br><br>Elicits psychological and social information to place the patient's problem in context. | 18 (12%)<br>CI [8% - 18%] |
| | Works in partnership with the patient, negotiating a mutually acceptable plan that respects the patient's agenda and preference for involvement. | -- |
| | Explores the patient's understanding of what has taken place. | -- |

| | | |
|---|---|---|
| | Flexibly and efficiently achieves consultation tasks, responding to the consultation preferences of the patient. | -- |
| Excellent communication and consultation skills | Incorporates the patient's perspective and context when negotiating the management plan. | -- |
| | Whenever possible, adopts plans that respect the patient's autonomy. | -- |
| | Uses a variety of communication techniques and materials to adapt explanations to the needs of the patient. | -- |
| | Appropriately uses advanced consultation skills such as confrontation or catharsis to achieve better patient outcomes. | -- |

The competency of practicing holistically, that is, incorporating physical, psychological, social, socioeconomic, and sociocultural elements, as well as taking feelings, thoughts, and health promotion into account, was not observed in 100 consultations (66%) (Table 3). In 17 consultations (11%), doctors demonstrated competency in holistic practice and 34 (23%) needed further development.

**Table 3: Consultation competency according to the WPBA framework for practicing holistically**[37]

| **Competency level** | **Descriptor** | **Number of consultations (n=151)** |
|---|---|---|
| Insufficient evidence practicing holistically, promoting health, and safeguarding | From the available evidence, the doctor's performance cannot be placed on a higher point of this development scale. | 100 (66%) CI [58% - 73%] |
| Needs further development practicing holistically, promoting health, and safeguarding | Enquiries into both physical and psychological aspects of the patient's problem. | 9 (6%) CI [3% - 11%] |
| | Recognises the impact of the problem on the patient. | 14 (9%) CI [6% - 15%] |
| | Uses him/herself as the sole means of supporting the patient. | 11 (7%) CI [4% - 12%] |
| Competent practicing holistically, promoting health, and safeguarding | Demonstrates understanding of the patient in relation to their socio-economic and cultural background. | 10 (7%) CI [4% - 12%] |
| | Additionally, recognises the impact of the problem on the patient's family/carers. | 7 (5%) CI [2% - 9%] |
| | Utilises appropriate support agencies (including primary health care team members) targeted to the needs of the patient. | -- |
| Excellent practicing holistically, promoting health, and safeguarding | Uses this understanding to inform discussion and to generate practical suggestions for patient management. | -- |
| | Recognises and shows understanding of the limits of the doctor's ability to intervene in the holistic care of the patient. | -- |
| | Organises appropriate support for the patient's family and carers. | -- |

Although important observations, there were no statistical associations between patient and doctor characteristics, practising holistically or communication skills and sexual history taking.

***Doctors' and patients' opinions on discussion of sexual dysfunction.***

Most of the patients (58%) were willing to discuss sexual challenges with the doctor. Nine participating doctors (43%) said they would like to discuss sexual matters with patients. Both participant groups preferred that the other party initiates the discussion of sexual challenges; where 29% of the doctors expected the patient to initiate the discussion and 20% of patients expected the doctor to ask. No statistical association was found between demographic factors and whom participants believed must initiate the discussion.

Most of the patients (77%) did not identify a barrier to sexual history taking. They reported that nothing would stop them in their need to express sexual challenges to their doctors, while 67% of the doctors expressed that they either did not think about sexual dysfunction or had too many other things to cover in the limited consultation time (Table 4). Fifteen patients (10%) valued a receptive attitude and considered a friendly, approachable doctor who listens to be someone to whom they would likely disclose sexual challenges. Five (3%) patients considered that consulting a different doctor every time they came to the clinic to be a barrier to sharing sexual challenges.

Table 4 includes a few isolated but disturbing findings, such as that one doctor believed it to be illegal to ask about sexual dysfunction, and another considered it against his personal value system to ask about sexual challenges if the patient was not married.

**Table 1: Doctors' and patients' opinions on discussion of sexual dysfunction**

| **I would like to discuss sexual matters during the consultation** | | | |
|---|---|---|---|
| | **Patient participants** | **Doctor participants** | |
| | **n=151** | **n=21** | |
| Yes, always | 84 (56%) | 9 (43%) | |
| Yes, sometimes | 3 (2%) | | |
| Only if the doctor asks | 30 (20%) | 4 (19%) | |
| Only if the patient asks | 29 (19%) | 6 (29%) | |
| No never | 5 (3%) | 1 (4%) | |

| Perceived single most important barrier to discuss sexual challenges in the consultation | | | |
|---|---|---|---|
| | **Patient participants (n=151)** | | **Doctor participants (n=21)** |
| None, nothing will stop me | 116 (77%) | Too many other more important things to ask | 7 (34%) |
| Doctor has a negative attitude (rude, unfriendly, does not listen) | 12 (8%) | Time constraints | 4 (19%) |
| Shyness/nervousness | 6 (4%) | Do not think of sexual dysfunction | 3 (14%) |
| Lack of privacy (nurse, translator, or other person in the room) | 5 (3%) | Lack of knowledge on subject | 2 (10%) |
| Always a different doctor (lack of continuity of care) | 4 (3%) | Gender or culture | 1 (5%) |
| If the doctor does not show interest and ask about my problems | 3 (2%) | Not presenting complaint | 1 (5%) |
| Sex/gender of the doctor | 3 (2%) | Medico-legal implication for bridging privacy | 1 (5%) |
| S/he will not understand Cultural stuff (e.g., going to the mountain) | 2 (1%) | Against personal value system | 1 (5%) |
| | | Sexual dysfunction is not indicated | 1 (5%) |
| Total | 151 (100%) | Total | 21(100%) |

**Discussion**

This study set out to observe sexual history taking during routine chronic illness consultations in primary care settings. There was no history taking for sexual dysfunction in this current study. Yet 94% of female patients were living with sexual challenges and 98% of male patients were living with erectile dysfunction.[38] This leaves the question as to why time in such a routine consultation could not be used to explore comorbidities, such as sexual dysfunction, or psychosocial factors related to the illness. This type of patient-doctor interaction would perhaps be associated with holistic practice, however, assessment of the consultations reflected that most doctors did not interact holistically with their patients.

Research suggests that a biopsychosocial and culturally sensitive approach, that is characteristic of a holistic practice, can contribute to sexual history taking.[39-41] Good communication is required to facilitate holistic practice, whereas doctors displayed reasonable communication skills in only 12%

of the consultations. One understands that sexual functioning is a sensitive matter, and that it might elicit discomfort if the doctor does not know how to start the conversation.[42] Andrews has suggested using a sensitive non-judgemental approach with open ended questions to approach this discussion, but such an approach assumes doctors can draw on reasonable communication skills in order to adopt it.[43] In this study, extremely poor communication was observed, which would explain the poor level of interaction between patients and doctors in general, and, especially, the absence of communication around sexual dysfunction. If communication is poor, it clearly leads to missed opportunities for exploring sexual wellbeing.[44]

Communication around sexual health was also limited by common barriers to sexual history taking. Participants chose a single important factor that prohibited them from discussing sexual challenges with the doctor. Although low on their lists, sex, age, and culture differences were identified and are well described in other research.[18,45,46] The cultural aspects identified by the patients in this study were related to traditional practices, often ancient, that enable a connection to ancestral spirits when patients are sick.[47] Going to the mountain, mentioned by one patient, is an example of such a practice. Although African patients often consult traditional healers for herbal medicine to counter sexual dysfunction or to improve pleasurable sex, these aspects were not part of the scope of this study.[26,48,49] It is, however, important to note that cultural barriers for patients are more than just cultural or normative prejudice that leads doctors to avoid addressing the sensitive topic of sexuality. In terms of the patient-doctor interaction, this links with the holistic practice of the doctors, or, in this case, the lack thereof.

It was noteworthy that most of the doctors in this study did not consider sexual challenges a priority, while patients expressed hesitation to share the information, as they did not perceive the doctors as open and friendly. A doctor-centeredness in the relationship was observed, where doctors did not consider asking patients openly what they considered to be important, as well as what issues were troubling them, which might have elicited discussion on any other challenges. This approach is counterproductive in quality patient care, adherence to therapy, patient satisfaction and trust.[50] Considering the three discourses of patient-centredness, namely “caring for patients”, “empowering patients” and “being responsive”, these consultations failed to care for or empower patients.[51] Doctors were not responsive to patient needs, which excluded the patient from decision-making and participating in self-care. Specifically, relevant to this study is that the lack of patient-centredness is detrimental to positive psychosocial outcomes.[50] Even in a context of nursing, it was noted that the biomedical model hardly ever prioritises sexual concerns and these were often unacknowledged.[52]

A few patients also mentioned aspects such as time constraints, shame, embarrassment, and lack of knowledge as barriers to discussing sexual challenges, which is also well described in literature.[7,16,46,53,54] While patients verbally felt that nothing would stop them from talking to the doctor about their sexual challenges, they still lived with sexual dysfunction and did not raise it. One should consider that they may have raised it in the past, or that it did not occur to them to raise it with the doctor. Help-seeking behaviour plays a role in talking about sexual dysfunction. In an Iranian study, 36% of female patients did not think of seeking help.[55] There is also the matter of low literacy levels and the understanding of illness and disease. A study in Ghana highlighted the fact that patients often do not know that their sexual challenges can be a medical condition.[56] It may be that, although the patients were comfortable talking about it, they did not know that they could raise it with the doctor. Alternatively, acquiescence contributed to this failure to interact. Patients learned to fit in with their expected role as determined by doctor-centred care.[57]

The participants were purposively selected and deliberately biased towards the possibility of experiencing sexual dysfunction due to diagnoses of hypertension and diabetes. Despite the risk for sexual dysfunction in these patients, and one patient presenting with a symptom associated with sexual dysfunction, none of the doctors screened for it. This is contrary to 43% of the doctors in this study who said that they were always ready to discuss sexual health issues in the consultation. One must then assume that there are other factors involved, and that doctors believe they should be open to such discussions, even if they do not make them happen in practice. Such a mismatch between belief and action is not uncommon but is worth further exploration. The barriers doctors mentioned related to the fact that doctors did not consider screening to be indicated in these patients, or they did not think of sexual dysfunction. Research has suggested in the past that the lack of awareness of how illness influences sexual functioning can be a barrier for screening.[7,58] Personal sexual agendas, professional attitude, and an indifference to finding solutions are not often raised by doctors themselves, but a qualitative study in Malaysia suggested it may impact negatively on sexual history taking.[46] Regardless, the doctors overlooked the opportunity to screen for sexual dysfunction during the routine consultations in this study.

External validity of quantitative data due to a small sample size is a limitation in this study. However, as the quantitative data was mainly in the interest of triangulation of a qualitative study, and the strength of the study lies in the methodology of having various sampling points of different aspects and methods to describe the phenomenon of real-time sexual history taking in routine consultations with patients at risk of sexual dysfunction.

## Recommendation and conclusion

This research does not only demonstrate the poor quality care for sexual health that arises from doctor-centredness, but also that omissions in communication and holistic practice have negative implications for general patient care. In all routine consultations, particularly in those involving patients living with chronic illnesses, the doctor is needed not only for providing a repeat prescription, but also for addressing any ongoing unspoken challenges that should surface. Given the gap between theory and practice evidenced in the study, this will require an attitude change on the part of the doctors involved. Guidelines that address history taking for sexual dysfunction can facilitate awareness and attitude changes. Such a change will involve doctors dealing with their self-centredness to build relationships with their patients and nurture patient participation. It requires an awareness of and respect for their patients and associated holistic well-being. Most of all, it requires ongoing training in communication, so that doctors can initiate and maintain these sensitive discussions. If doctors are in doubt, all they need to do is ask their patients – the patients have made it clear that they will tell them.

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# CHAPTER 5

## 5. ARTICLE 2: SEXUAL HISTORY TAKING: PERSPECTIVES ON DOCTOR-PATIENT INTERACTIONS DURING ROUTINE CONSULTATIONS IN RURAL PRIMARY CARE IN SOUTH AFRICA

Chapter 4 showed that no SHT for SD was done in this study, however there were a few attempts to screen for HIV which is relevant to this research. These attempts for SHT included one female patient who presented with pain after intercourse, where it was reasonable to expect SHT. This article presents the qualitative sexual history taking findings. Three main themes are highlighted namely patient centredness, consultation context and the consultation content.

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EVALUATION

# Sexual History Taking: Perspectives on Doctor-Patient Interactions During Routine Consultations in Rural Primary Care in South Africa

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## ABSTRACT

**Background:** Sexual history taking for risk behavior contributes to improving health outcomes in primary care. Giving the high numbers of people living with AIDS, every patient in South Africa should be offered an HIV test, which implies that a comprehensive sexual history must be taken.

**Aim:** To describe the optimal consultation process, as well as associated factors and skills required to improve disclosure of sexual health issues during a clinical encounter with a doctor in primary health care settings in North West province, South Africa.

**Methods:** This qualitative study, based on grounded theory, involved the video-recording of 151 consultations of adult patients living primarily with hypertension and diabetes. This article reports on the 5 consultations where some form of sexual history taking was observed. Patient consultations were analyzed thematically, which entailed open coding, followed by focused and verbatim coding using MaxQDA 2018 software. Confirmability was ensured by 2 generalist doctors, a public health specialist and the study supervisors.

**Main Outcome Measure:** Sexual history was not taken and patients living with sexual dysfunction were missed. If patients understand how disease and medication contribute to their sexual wellbeing, this may change their perceptions of the illness and adherence patterns.

**Results:** Sexual history was taken in 5 (3%) out of 151 consultations. Three themes emerged from these 5 consultations. In the patient-doctor relationship theme, patients experienced paternalism and a lack of warmth and respect. The consultation context theme included the seating arrangements, ineffective use of time, and privacy challenges due to interruptions and translators. Theme 3, consultation content, dealt with poor coverage of the components of the sexual health history.

**Conclusion:** Overall, sexual dysfunction in patients was totally overlooked and risk for HIV was not explored, which had a negative effect on patients' quality of life and long-term health outcomes. The study provided detailed information on the complexity of sexual history taking during a routine consultation and is relevant to primary health care in a rural setting. **D Pretorius, I Couper, M Mlambo. Sexual History Taking: Perspectives on Doctor-Patient Interactions During Routine Consultations in Rural Primary Care in South Africa. Sex Med 2021;XX:XXXXXX.**


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**Key Words:** Sexual History Taking; Sexual Dysfunction; Patient Centeredness; Communication; Sexual Risk Screening; HIV Screening; Privacy; Consultation; Routine Consultation

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## INTRODUCTION

Sexual history taking for patients with chronic illness, such as diabetes and hypertension, remains a neglected area in primary care settings. Research suggests that between 10% and 58% of doctors globally conduct routine sexual history taking.[1,2] In both the UK and USA, researchers found that the human immunodeficiency virus (HIV) testing in primary care did not only offer health benefits but was also cost effective.[3,4] In light of the overall estimated HIV prevalence in South Africa (13.5%),[5] routine

HIV risk screening is both important and aligned with the Government Health Strategy to improve health outcomes in South Africa.[6] The South African national guidelines for management of HIV prescribe that every patient must be offered an HIV test or be informed of self-screening for HIV.[7,8] Through regular HIV screening and testing, clinical management can reduce AIDS-related events and death substantially.[9] It is therefore important to assess the frequency and nature of sexual history taking.

Screening for HIV infection varied between countries. For example, 2% of men living in Niger were screened for HIV, whereas 45% of Ukrainian women were tested, and still other countries have no screening data.[10] Tillman[11] suggested that despite older people being more receptive to sexual history taking, asymptomatic screening for HIV and sexually transmitted infections (STI) was low. If provider-initiated screening was conducted during the routine consultation, it could provide an opportunity for sexual history taking. This opportunity for sexual history taking was then also the result of provider-initiated HIV testing that improved the uptake of screening and treatment in Nigeria.[12] A qualitative meta-analysis of HIV literature found that rapid testing in routine primary care settings enhanced screening opportunities.[10] The assumption is that to screen for HIV, a sexual history must be taken in order to do HIV pretest counselling.[13]

A sexual history usually covers sexual practices, partners, previous STI, prevention of STI and pregnancy, and other factors such as sexual wellbeing, trauma, gender identity, sexual orientation, and other sexual concerns.[14,15] In the literature, there is an emphasis on a culturally sensitive and respectful sexual history taking, where good communication and an inclusive attitude are important.[16] When taking a sexual history, lay terminology makes it easier for doctors and patients, not only in terms of concepts, but also to ease the discussion or patient-doctor interaction.[17] The lack of open-ended questions to facilitate the patient's story, as well as prejudice of the health care worker tends to limit opportunities to explore sexual challenges.[18] Sexual history taking is, however, inhibited by personal, professional, educational, and normative barriers, which may impact on the frequency of sexual history taking.[19–23] Expert opinion is that sexual history seldom happens in primary care, despite best intentions.[24] The absence of sexual history taking was also reported in an observational study of homeless people in the USA.[22] However, a cross-sectional study in the USA on documentation of sexual history taking in primary care found partial sexual history taking in 34%, and none in the other 65% of the primary care consultations.[15]

A South African study found that the prevalence of non-communicable disease and HIV infection is high, and that community-based screening must be expanded.[25] This prompted the researcher's interest in understanding what the nature of sexual history taking entails in a rural primary care setting in South Africa. Coverdale et al[26] published a systematic review of English publications globally on teaching sexual history-taking skills and found only one study involving community-based physicians. In South Africa, research on sexual dysfunction is lacking, as only 17 articles were published in peer-reviewed journals between 1970 and 2013.[27] Video-recorded research is scarce globally. To the best of our knowledge, in South Africa, there is no record of a study that involved video recording of real-time consultations to observe and describe sexual history taking and thus a lack of evidence of the nature and content of sexual history taking in primary care. Observation of real-time sexual history taking with patients can contribute to better training during undergraduate years and continuous education for practicing doctors.

## MATERIALS AND METHODS

### Aim of the Study

This study observed and described sexual history taking, as well as doctor-patient interaction regarding sexual history taking, during routine consultations in primary care settings in Dr Kenneth Kaunda Health District, North West Province, South Africa.

### Method

This qualitative study formed part of the broader grounded theory PhD study using observed video-recorded consultations of adult patients (>18 years of age), who were at risk of sexual dysfunction due to their diagnosis of hypertension and/or diabetes, and/or the medication they used.[28]

Dr Kenneth Kaunda Health District, in North West Province, South Africa, is considered a rural area. It has a population of 807,252, living in an area of 14,767 $km^2$. Government-provided primary care services are rendered to approximately 80% of the population.[29] These patients do not have the financial resources to access any other health care services.

Twenty-one doctors gave written consent to participate. The adult patients living with diabetes and hypertension, and thus at risk of sexual dysfunction, were purposefully selected. Of them, 151 were consecutively sampled and gave written consent. The number of patients was based on the number of consultations that must be observed to have enough examples of sexual history taking. The midpoint of the disclosure rate of sexual dysfunction, which varies between 14% and 20%[19,30–31] was used to calculate the sample as described in another article.[32] Only the video consultations where sexual history taking took place constituted the final sample for this article. Consultations where the focus was routine health maintenance without any further sexual health education, sexual risk screening, or any attempt of sexual history taking were excluded.

Written consent was obtained from patients and doctors for both video recording of the consultation and the completion of the questionnaires following the consultation. Participants were informed that the content of the consultation will be analyzed,

without referring to sexual history taking. Following the recording, the patient consented to complete globally used questionnaires, namely, the Female Sexual Function Index (FSFI)[33] or International Index of Erectile Function (IIEF),[34] to determine if the patients experienced sexual dysfunction symptoms.

### Data Analysis

The videos were transcribed verbatim and analyzed using MaxQDA 2018 software. For analysis, open coding was done initially to systematically identify similar behavior and interactions, as well as consultation content. Consultations where there was no reference to any form of sexual health by the patient of any form of screening or discussion of sexual health by the doctor, were excluded from further analysis. Axial coding of the 5 remaining consultations was guided by what issues were addressed during the sexual history taking, who was involved, the nature of the interaction, if the issue was addressed or not, how, when and why it was addressed and if there was a reason for it, and lastly, if there were any methods or strategy to address the issue.[35] Using descriptive and in vivo coding, data codes with similar characteristics were grouped into categories representing observations, behaviors, or interaction. The observations and coding scheme were reviewed by a family physician, general practitioner, public health specialist, and the study supervisors to ensure trustworthiness and credibility. To establish the trustworthiness of the study, multiple data sources were used, including video recording of the consultations, questionnaires, and field notes.

### Ethical Considerations

The study was approved by the Human Research Ethics Committee (Medical) of the University of Witwatersrand (M160557). Clinics were referred to only as site numbers to ensure confidentiality of both the setting and healthcare workers. The Directorate: Policy, Planning, Research, Monitoring and Evaluation of the Department of Health, North West Province, South Africa, granted permission for the research to proceed. Permission was granted to use the sexual dysfunction questionnaires by the publishers.

## RESULTS

### Patient, Doctor, and Consultation Characteristics

Sexual history taking was observed in 5 consultations out of 151 patient consultations (Table 1). All 5 of the consultations offered the opportunity for both screening for HIV infection and exploring sexual dysfunction. The 4 doctors were between the ages of 25 and 47 years, and the 5 patients varied between 33 and 63 years. Active interaction with patients varied between 2 and 8 minutes in consultations that lasted between 8 and 23 minutes (Table 1). Time was lost in the consultation on administrative tasks, as well as searching for information and laboratory results. Although all 5 patients experienced sexual dysfunction symptoms, such as erectile or orgasmic challenges, pain or desire and arousal challenges (Table 1), only 1 patient did not meet the criteria for overall sexual dysfunction.

### Sexual History During the Consultation

The excerpts of the consultations are summarized in Table 2.

Consultation 1 presented a 63-year-old man consulting for a follow-up for stomach pain. He was asked if he has HIV, and despite the patient not knowing, he was not offered an HIV test.

Consultation 2 was a 46-year-old woman who presented with pain after intercourse and was informed on vaginal hygiene practices.

Consultation 3 included a warning about HIV given to a 33-year-old man presenting with a STI.

Consultation 4 presented a 63-year-old man that had a prostatectomy in the previous year and was asked if, "*All good and working after the operation?*"

Consultation 5 deals with a 47-year-old woman who said she felt sick, and the doctor wanted to know her HIV status.

### Thematic Analysis

Three themes emerged from the study, namely the patient-doctor relationship, the consultation context, and content (Tables 3–5).

Theme 1 centered around the patient-doctor relationship, which comprised of 3 subcategories, namely patient-centeredness, professionalism, and communication. Doctors were paternalistic, with little evidence of professionalism and no evidence of patient-centeredness (Table 3).

Theme 2 focused on the consultation context (Table 4). Time dedicated to the patient interaction was less than a third of the consultation time. Privacy was a challenge with either the nurse acting as translator or other staff members entering the consultation room to collect equipment. The was no evidence of sexual history taking, as no risk screening and management were observed (Table 4).

Theme 3 involved the consultation content (Table 5). It dealt with the content of the consultation and the scope of sexual history taking. Health education was conducted in 2 consultations. No screening for sexual risk or dysfunction was conducted (Table 5).

## DISCUSSION

This study set out to observe and describe patient-doctor interactions related to sexual history taking during routine consultations in primary care settings. This study found only 5 examples of any attempt at sexual history taking, out of 151 consultations recorded. Three themes emerged that described the

**Table 1.** Patient, doctor, and consultation characteristics

| Consultation | Doctor | Presenting complaint | Time of interaction | FSFI/IEF results |
|---|---|---|---|---|
| *Consultation 1*<br>Patient 25: A 63-year-old Setswana man, living with diabetes, hypertension and cholesterol. The patient completed primary school. | Dr 07:<br>47-year-old male doctor | Painful stomach.<br>BP 127/88. | 11.50 min Time paging in file:47 s. Time writing in file: 3.06 min<br>Examination: 1.02 min.<br>Writing referral note: 1.32 min. Interaction with patient using a Translator: 5.36 min | IIEF:<br>Patient25 had severe orgasmic dysfunction, mild to moderate sexual desire challenges and no intercourse satisfaction. Overall, he had severe sexual dysfunction |
| *Consultation 2*<br>Patient 37:<br>46-year-old Setswana woman<br>The patient completed secondary school. | Dr 09:<br>31-year-old female doctor | Diabetes, asthma, depression, and HIV.<br>Presenting complaint on file: Pain after intercourse, and on recording renewal of script and scratchy eye was added.<br>BP 144/108. | Total consultation: 22.50 min<br>Time paging in file: 1.16 min<br>Time writing in file: 8.15 min<br>Examination: 2.58 min<br>Writing referral note: 1.25 min<br>Dispensing medication: 1.20 min<br>Interaction with patient: 8.16 min<br>The consultation was done in English | FSFI:<br>Patient 37 had overall sexual dysfunction being affected in all the domains, namely desire, arousal, lubrication, orgasm, satisfaction, and pain. |
| *Consultation 3*<br>Patient 49:<br>A 33-year-old Xhosa man.<br>The patient completed secondary school. | Dr 11:<br>A 28-year-old male doctor | Hypertension.<br>Presenting complaint: STI written on file. The patient never mentioned it to the doctor.<br>BP 145/81. | Total consultation: 7.55 min<br>Time paging in file: 2.45 min<br>Time writing in file: 3.1 min<br>Examination: 1.01 min<br>Dispensing medication: 0.55 s<br>Interaction with patient: 1.56 min<br>Consultation was done in Setswana | IIEF:<br>Patient 49 lived with overall sexual dysfunction. He experienced moderate erectile dysfunction, severe orgasmic and desire challenges and had moderate intercourse satisfaction. |
| *Consultation 4*<br>Patient 95:<br>A 63-year-old Xhosa man<br>The patient completed secondary school. | Dr 17:<br>25-year-old male doctor | Diabetes and hypertension.<br>Presenting complaint: Not documented on file (On video repeat of chronic script and pain in shoulders indicating left shoulder)<br>BP 136/96. | Total consultation: 9.56 min<br>Time paging in file: 1.73 min<br>Time writing in file: 3.06 min<br>Examination: 1.37 min<br>Interaction with patient: 2.07 min<br>Consultation was done in English. Nurse Translator in the room. | IIEF results<br>The patient had mild erectile dysfunction, severe orgasmic challenges, moderate desire, and moderate intercourse satisfaction. Overall, he did not meet the criteria for sexual dysfunction |
| *Consultation 5*<br>Patient 98:<br>A 47-year-old Xhosa woman living with<br>The patient completed secondary school. | Dr 17:<br>25-year-old male South African graduate | Hypertension.<br>Presenting complaint: Not documented on file (On video repeat of chronic script and she feels sick).<br>BP 140/91. | Total consultation: 8.09 min<br>Time paging in file: 2.04 min<br>Time writing in file: 3.08 min<br>Examination: 30 s<br>Writing referral for blood: 39 s<br>Interaction with patient: 2.28 min<br>Consultation was done in English | FSFI<br>The patient had overall sexual dysfunction. All the domains namely desire, arousal, lubrication, orgasm, and satisfaction were affected except pain |

**Table 2.** A qualitative summary of sexual history taking excerpts as observed during the consultations ($n$ = 5)

| Consultation 1<br>Male patient (63 years), male doctor (47 years) | Consultation 2<br>Female patient (46 years), female doctor (31 years) |
|---|---|
| Prelude to sexual history taking: The patient was at the clinic the weekend prior to this consultation and got medicine for his stomach with the instruction to return.<br>Sexual history excerpt:<br>*Dr 07: Did you finish your treatment?*<br>*Pt 25: Yes, I have.*<br>*Dr 07: Do you have HIV?*<br>*Pt 25: I do not know.*<br>*Dr 07: Please go on the bed.*<br>*Pt 25: On the bed?*<br>*Dr 07: Yes.*<br>*Doctor examined the patient on the couch.*<br>*Dr 07: Is your stomach getting bigger*<br>*Pt 25: No.*<br>*Dr 07: So, everything is fine. I just want to do a test in your stomach to see if your stomach and pancreas is okay. . ..*<br>*Doctor started writing the referral and the nurse explained to the patient where to go.* | Prelude to sexual history taking: This was a routine consultation to renew the script, covering all her chronic conditions. The doctor followed up on the blood pressure. The patients attended a relative's a funeral the day before and doctor decided to follow up on blood pressure at the next visit.<br>Sexual history excerpt:<br>*Dr 09: You did blood tests . . . (reading) August last year. Let me see the results. (Dr accessed laboratory results on her phone). Okay, the viral load looks good. We used to look at the CD4, but we do not do it anymore. The viral load is now the one that tells us how good you are and if you use your medicine.*<br>*Pt 37: Oh (nodding)*<br>*Dr 09: Anything else?*<br>*Pt 37: When. . .when I have sex neh, I have pain. . . but after.*<br>*Dr 09: Painful?*<br>*Pt 37: Nodding and indicating suprapubic area.*<br>*Dr 09: At the bottom?*<br>*Pt 37: (Nodding yes).*<br>*Dr 09: How many children do you have...*<br>*Pt 37: . . .Interrupts: Three*<br>*Dr 09: . . .and were they born normal or caesarean section? (Indicating 3 fingers)*<br>*Pt 37: Yes.*<br>*Dr 09: It is because . . .because of the stitches. It can happen they grow in there. As long as it does not cause discomfort during intercourse.*<br>*Pt 37: And sometimes itchiness (whispering).*<br>*Dr 09: What do you use to wash?*<br>*Pt 37: "Brand name" soap.*<br>*Dr 09: It is too strong for the vagina. "Brand name soap" is too strong. You can use aqueous cream and water but must not put soap there.*<br>*Pt 37: Laughs (looking embarrassed)*<br>*Dr 09: When was the last time you had a PAP smear?*<br>*Pt 37: Shaking her head indicating no or never. (The doctor wrote in the file).*<br>*Dr 09: I am going to refer you. . .. Please undress —I am going to examine your bottom and your eye. (Patient gets up and doctor continued writing). The doctor examined the patient. While examining: Do you still see your period?*<br>*Pt 37: No answer on the recording, so the researcher assumed the patient nodded.*<br>*Dr 09: Okay, but it will come and go till it stops. (Doctor returned to desk and made notes. The patient dressed and returned).*<br>*Dr 09: You had a dry eye and the vagina is dry. You must go to the eye clinic. (doctor writes and she and patient make small talk). When was the last time your husband tested?*<br>*Pt 37: (Patient shrugs).*<br>*Dr 09: It is important that he also test regularly. If his viral load is also low then you will stay healthy. (Patient nodded).*<br>*(Doctor wrote in the file and then wrote a referal note. She gave the referal note to the patient). They will sort your eye for you at the eye clinic.*<br>They made small talk and greeted, and patient departed. |
| **Consultation 3**<br>**Male patient (33 years), male doctor (28 years)** | |
| Prelude to sexual history taking: The patient entered, and the doctor asked him to close the door properly. The patient greeted. The doctor was already paging in the file and failed to greet.<br>Sexual history excerpt:<br>*Dr 11: (Paging through file and sigh.) Again?*<br>*Pt 49: (embarrassed) Yeh (remove the cap from his head)*<br>*Dr 11: Next time it is HIV neh? How long?*<br>*Pt 49: Two weeks*<br>*Dr 11: Color?*<br>*Pt 49: Yellow*<br>*Dr 11: You can prevent this. Abstain, be faithful and use a condom.*<br>*Pt 49: Yeh, I know*<br>*Dr 11: Get on (the) couch. (Dr examined the patient).*<br>*Dr 11: I will give you medication, but you must abstain, be faithful and use a condom.*<br>*Pt 49: Yeh, I will*<br>*Dr 11: (Try and find medicine in the cupboard in the consultation room, failed to find it and wrote a script and gave to patient. Patient left).* | |
| **Consultation 4**<br>**Male patient (63 years), male doctor (25 years)** | **Consultation 5**<br>**Female patient (47 years), male doctor (25 years)** |
| Prelude to consultation: The patient entered, and doctor asked the patient to close the door.<br>*Patient 95: Good morning Doctor. How are you?*<br>*Dr 17: Good (Paging through file and not looking at the patient).* What is wrong today?<br>*Pt 95: My shoulders pain.*<br>The doctor explored the attributes of the shoulder pain.<br>*Dr 17: I am going to check your blood results that was done last year. . .. (checking laboratory results on his phone). . . . July. . . .It is good.* (Filed notes: A year ago).<br>*Dr 17: I want to examine your shoulder. Doctor examined the patient. I will prescribe something for the shoulder.*<br>*Dr 17: (Writing in file) BP is still a bit high but good for your age.*<br>*Pt 95: Yes.*<br>*Dr 17: I see you had prostate surgery a year ago?*<br>*Pt 95: Yes*<br>*Dr 17: All good and working after the operation?*<br>*Pt 95: Yes*<br>*Dr 17: Good. You must keep drinking your pills.*<br>*Pt 95: Yes*<br>*Dr 17 You can make an appointment for next visit.*<br>*Pt 95. Yes*<br>Consultation ended. | Prelude to sexual history taking: The consultation started with the doctor asking if she understood English, and proceeds with:<br>*Dr 17: How old are you and do you need something today?*<br>*Pt 98: 47. I need medicine and I feel sick.*<br>*Dr 17: Do you sleep and eat nicely?*<br>*Pt 98: Yes.*<br>*Dr 17: (Doctor does a mental health check). Your blood was done a year ago, I am going to send you for bloods to check sugar, kidneys and other organs. (The doctor goes to the chair she is sitting in and listens to her lung sounds, and check for edema on lower limbs). No swelling, that is good. (He makes notes in her file and renewed her script).*<br>*Dr 17: BP is not bad, but you say you are sick?*<br>*Pt 98: Yes*<br>*Dr 17: Have you tested for HIV?*<br>*Pt 98: No*<br>*Dr 17: You must go to the counselor. You must be tested. Okay? (not waiting for a reply). I will hear if they are here. (Doctor leaves consultation room and returns later). Yes, they are here. You can go.*<br>Video recording terminated.<br>*When patient presented for the questionnaire, she spontaneously informed us she tested HIV positive. |

**Table 3.** Summary of observations supporting Theme 1

*Relationship I: The patient-doctor relationship*

| | | Consultations | | | | | |
|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | |
| Categories and codes | Category or code description | Pt 25 | Pt 37 | Pt 49 | Pt 95 | Pt 98 | Key: √ – done or present; X – not done, absent; O – partly done |
| *Category: Patient-centeredness* | Respectful and warm patient approach to understand the unique context, preferences, needs and values of the patient. | | | | | | |
| • Participation | For the patient to become actively involved in the consultation | X | √ | X | X | X | |
| • Paternalism | Doctor limits the patient's autonomy to make decisions or participate in decision making | √ | √ | √ | √ | √ | *"Please undress – I am going to examine your bottom and your eye" "I will give you medication, but you must abstain, be faithful and use a condom". "You must go to the counsellor. You must be tested. Okay?"* |
| • Partnership | Doctor and patient take co-responsibility for the consultation process and outcome | X | X | X | X | X | |
| *Category: Professionalism* | | | | | | | |
| • Doctor greeted when consultation commenced.<br>• Greeting when consultation ended | Welcome the patient politely as determined by culture or custom. | X X | √ √ | X X | O X | X X | Greeting observed in one consultation. "Good morning Doctor. How are you?" "Good" (Paging through file and not looking at the patient). |
| • Introduced him/herself | The doctor introduced him/herself and confirm the patient's name | X | √ | X | X | X | Observation |
| • Examined the patient | Standardized clinical structured way to assess what is wrong with a patient after history taking. | √ | √ | √ | O | √ | Observations: Consultation 2 & 3 examined patient on the couch and 3 others were examined patient on the chair. Consultation 4: The doctor did a shoulder exam with a seated patient wearing a thick jersey. |
| • Used gloves | The use of surgical gloves for examination | √ | √ | √ | X | X | Observed |
| • Washed hands | Washing of hands before or after examination or after gloving. | X | √ | √ | X | X | Field notes: All 5 consultation rooms had basins and running water and gloves. |
| *Communication skills* | The verbal (includes sign language), nonverbal or written exchange of information or ideas between one or more individuals. It also conveys emotion. | | | | | | |
| • Rapport building | A way to make the patient feel comfortable, safe and free to share feelings and ideas. It can be verbal or nonverbal. | X | √ | X | X | X | *"I think I know you; you have been here before?"* Observation: Doctor smiled and looked friendly. |
| • Medical jargon | The use of medical terminology unfamiliar to the patient. | √ | X | X | √ | X | *"I just want to do a test in your stomach to see if your stomach and pancreas is okay. . . ".* Observed over simplification: ". . .bottom". |
| • Explain disease or process to the patient | To explain to the patient your findings or reason for doing or asking things. | X | √ | X | X | O | *" It is because . . .because of the stitches. It can happen they grow in there. As long as it does not cause discomfort during intercourse". "It is too strong for the vagina. "Brand name soap" is too strong. You can use aqueous cream and water but must not put soap there". "Your blood was done a year ago, I am going to send you for bloods to* |

(continued)

**Table 3.** Continued

| *Relationship I: The patient-doctor relationship* | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | | *check sugar, kidneys and other organs."* (The doctor checks for edema on lower limbs). *"No swelling, that is good."* |
| • Questioning | Purposive and systematic way to ask few questions to elicit deep experiences and optimal information in an official context. | X | X | X | X | X | Positively phrased, leading, closed ended and double barrel questions. *"Do you sleep and eat nicely?" "All good and working after the operation?" "Painful?" "Again?"* |
| • Clarification / Reflection | Technique to verify if the doctor understood information, feelings and ideas correctly to avoid misunderstandings / to paraphrase information, feelings and ideas with added meaning that the patient can "hear" their own thoughts or to elicit underlying messages. | X | X | X | X | √ | Clarification: *"BP is not bad, but you say you are sick?"* |
| • Following up on questions | Non-optimal questions and answers must be followed up to discover or explore meaningful information that can enrich the assessment process. | X | X | X | X | X | Observation: No meaningful follow up. *"BP is not bad, but you say you are sick?" "Yes" "Have you tested for HIV?" "How many children do you have..." Patient interrupts: "Three". ". ..and were they born normal or caesarean section?" "Yes".* |
| • Listening | To hear and interpret what the patient is saying – it usually leads to appreciation, empathy, comprehension or critical thinking actively and effectively. | X | O | X | O | O | |
| • Eye contact | Face to face or eye to eye contact (inference listening or paying attention). | X | √ | O | O | O | Observation: Varied between no eye contact to good eye contact, to intermittent eye contact. |

patient-doctor relationship, the consultation setting, and the content of the consultation, which could explain the omission of sexual history taking in primary care.

There was no patient-centeredness as described in literature observed in any of the 5 consultations.[36–38] Unlike the other consultations, Doctor 9 (Consultation 2) partially succeeded in involving the patient in the conversation but did not demonstrate other aspects of patient-centeredness. Unfortunately, all the consultations had evidence of paternalism and a lack of partnership. Despite being difficult to quantify patient-centeredness, it is well described that the presence of its components lead to better patient outcomes.[39,40] Cohen and Alfonso[41] believe that the scope of the biopsychosocial approach, which includes medical, psychological, intrapsychic, interpersonal, sociocultural, and ethnic variables, facilitates sexual history taking.

Professionalism is an important component of the patient-doctor relationship that was lacking in these consultations. Greeting, politeness, and using a person's name are not only expressions of professionalism, but also signal respect in most African cultures.[41] The Setswana people describe a person who greets as having "botho" which means they have humanity, good relations and care for others.[42] The perception of politeness is supported by rapport building, where upholding social practices and communicating accordingly connects people. For example, not greeting an older African person can lead to the individual feeling disrespected and can compromise the patient-doctor relationship.[41] This was observed in Consultation 4: the older, friendly patient greeted the young doctor and even inquired about his wellbeing: (*Patient 95: "Good morning Doctor. How are you?"*) The doctor failed to greet the patient in return, and the patient consequently responded with sullen-sounding, one-syllable answers for the remainder of the consultation. If the doctor had observed and reflected on this behavior change in the patient, the interaction could have been normalized. Consultation 2 differed from the other consultations, in greeting and introduction, as well as acknowledging the patient's name, which improved the doctor-patient relationship and resulted in the patient disclosing intimate information. Rapport between the patient and doctor relieves anxiety and promotes dialogue.[43]

**Table 4.** Summary of observations supporting Theme 2

| Theme 2: Consultation context | | Consultations | | | | | |
|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | |
| Categories and codes | Category or code description | Pt 25 | Pt 37 | Pt 49 | Pt 95 | Pt 98 | Key: √ – done or present; X – not done, absent; O – partly done |
| *Setting* | The environment in which the consultation takes place | | | | | | |
| 1. Seating | Optimal seating arrangements that allows movement and observation and put patient and doctor on equal footing. | X | √ | X | X | X | Consultation 2: The patient was seated next to the desk while the doctor turned away from the desk that she and the patient sat in a semi-L-shape. Consultation 1 & 49: Sat opposite each other with desk between them. For Consultation 4 and 98: The patient was seated next to the washing basin with about 1 m between him and doctor. Doctor was seated behind a desk and the nurse was sitting opposite the doctor on the examination couch with files next to her. |
| 2. Timing | Moments in the consultation measured in time. | X | √ | X | X | X | Time was lost with paging in file for information or finding the correct page, writing notes, and obtaining laboratory results on the cell phone. Examination varied between 2 minutes and 3 minutes. Active patient and doctor in interaction varied between <2 min (21% of consultation time) and 8 minutes (36% of consultation time) – both without Translators. The translation consultations had longer interaction with the patient, but it did not change the involvement of the patient in the consultation. |
| *Privacy* | Situation where doctor and patient are not interrupted or overheard by other people. It includes an area where the patient can be examined without the risk of being seen by another person. | | | | | | |
| • Door closed | The door of the consultation room must be closed. | √ | √ | √ | √ | √ | |
| • Curtaining at the examination couch | Curtains that ca close off the examination couch. | X | √ | X | X | X | Field notes: No curtains at examination couches except Consult 2. |
| • Window | Windows in the consultation room covered to prevent the patient to be seen. | √ | √ | X | √ | √ | Filed notes: Windows with blinds or curtains. Consultation 3 – only a sheet covering two thirds of the window looking out on a service area. |
| • Translator | A person translating from English to one of the other African languages. | √ | X | X | √ | √ | Field notes & observations: Two consultations made use of the nurses to translate. The doctors did interact either with the nurse translator or kept making notes during the translation process. Consultation 3 – the nurse (translator not utilized) yawned loudly while patient was examined and had private social discussions on community events with the patient while the doctor made his notes. |
| • Interruptions | An act or utterance that interfere or break the continuity of the consultation. | √ | √ | √ | √ | X | Observation: Interruptions caused by translator or other staff members entering looking for forms or needles etc. and then leaving. Only one consultation did not have an interruption. |

**Table 5.** Summary of observations supporting Theme 3

| Theme 3: Consultation content | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | Consultations | | | | | |
| | | 1 | 2 | 3 | 4 | 5 | |
| Categories and codes | Category or code description | Pt 25 | Pt 37 | Pt 49 | Pt 95 | Pt 98 | Key: √ – done or present; X – not done, absent; O – partly done |
| *Consultation content* | The components of the consultation namely medical history, examination, and discussion of care and treatment – all of which are grounded in evidence-based criteria or standards. | | | | | | |
| • Management of presenting complaint | The complaint the patient presents with as primary focus of the consultation. | √ | √ | √ | √ | √ | Observation: All presenting complaints addressed to some degree or other. |
| • Management of chronic condition | Discussion of one or more diseases that needed ongoing monitoring and management. | X | √ | X | X | X | Observation: Consultation 2 had a detailed systematic overview of chronic conditions, whist Consultation 3 and Consultation 4 had one comment on blood pressure. |
| • Health education | Information or teaching of ways to promote and maintain personal health. | X | √ | √ | X | X | *"Okay, the viral load looks good. We used to look at the CD4, but we do not do it anymore. The viral load is now the one that tells us how good you are and if you use your medicine". "You can prevent this. Abstain, be faithful and use a condom"* |
| • Opportunistic health screening | To identify an asymptomatic or healthy person who at risk of a disease or condition. It includes recent travel and domestic violence. | O | √ | X | X | √ | *"Do you have HIV? Patient: "I do not know." "When was the last time you had a PAP smear?"* |
| • Refer appropriately | Sending a patient for an appropriate review or further action to another professional. | X | O | X | X | O | Consultation 2 – Eye clinic, but no referral pain complaint or PAP smear. Consultation 5 – No justification for referral to do HIV testing. |
| • Sexual history – risk screening and management | Any assessment of recent sexual history, sexual orientation, type of sexual activity, the possibility of pregnancy (women), use of contraceptives including condoms, recent antibiotic history. | X | X | X | X | X | Not observed |
| • Sexual history – sexual dysfunction screening and management (DSM 5) | Any diagnostic criteria of sexual dysfunction. | X | X | X | X | X | Not observed |

Communication skills, including the verbal and non-verbal exchange of information and ideas between individuals, are core to the doctor-patient relationship. Poor eye contact and poor listening were the 2 factors most prominent in these consultations. Gorawara-Bhat and Cook[44] connected eye contact and listening as 2 crucial components of patient-centeredness. Eye contact is often sensitive in Africa, as some people claim that in certain cultures, adults do not to tolerate younger people making direct eye contact. Nonetheless, a study conducted in rural KwaZulu Natal, in an optometry setting, found that an introduction between the professional and patient and maintaining eye contact ensured that 75.6% of the participants considered the professional as more reliable.[44] Doctor 9 in Consultation 2 demonstrated good eye contact with the patient during the entire

consultation, compared to the other consultations in which there was intermittent or no eye contact.

Listening did not manifest very well in these consultations. Lang et al[45] developed a clue taxonomy for doctors to improve communication, specifically listening. Listening in this taxonomy refers to the awareness of how the patient verbalizes the symptom, how they articulate feelings or concerns, speech clues that underscore the concern, the patient's illness story and behaviors indicative of unanswered needs. Doctor 9 satisfied symptom expression and the patient's illness story to an extent, but missed the speech cues in the hesitation between words when the patient expressed her concern (Patient 37: "*When. . .- when I have sex neh, I have pain. . . but after. . ..*"). If the doctor had just reflected this hesitation, the patient may have believed that she was heard and could potentially facilitate disclosure of the sexual dysfunction. In Consultation 3, Doctor 11 missed the opportunity to modify behavior. The patient presented repetitively with STI (Doctor 11: "*Again?*" *[Patient bowed his head]* Patient 49: "*Yeh*" *[removed the cap from his head and looked embarrassed])*. The doctor could have used the repetitive presentation and embarrassment factor to motivate behavior change. In Consultations 4 and 5, Doctor 17 had the opportunity to allow both patients to share their illness stories, but this did not happen, as there was no receptiveness, or interest in hearing their stories. None of the patients were asked about their illnesses, or how these influenced their daily lives or the lives of their partners and families.

One can hypothesize that concerns about the appropriateness of a sexual history when it is not the presenting complaint may be a barrier, but Peltola et al[46] suggested that the healthcare worker-patient relationship and the willingness to engage bridge this concern and are conducive to self-management in chronic disease. Unfortunately, people in rural areas generally have lower socioeconomic status and lower education levels, and with these there is often the perception, on the part of doctors, that the patient has less to tell them.[47] In this study, the relationship never reached a point of reciprocation and could be summed up as a doctor taking on an administrative duty to write a prescription or administer medication while the patient had to accept blindly whatever the doctor thought relevant. The observed relationships lacked warmth and empathy, which correlates with the findings of other research that rural or high deprivation areas experienced a lack of warmth and empathy.[47]

The quality or components of the sexual history did not change when the consultation was in the patient's home language. Consultations in this study were concluded in less than 11 minutes, except for Consultation 2. Stirling et al[48] postulated that if the duration of the consultation was extended from 9 to 13 minutes, this would result in a 32% increase in disclosure rates of personal or sensitive information. The brief consultations in this study caused the doctors to focus only on the presenting complaint, thus forsaking a comprehensive consultation and illness story.

Another structural aspect was that of privacy. The perception of privacy in sexual history taking goes further than a covered window, closed door, interruptions, or the presence of a translator.[49] Privacy can improve the opportunity to discuss sensitive matters, but one cannot underestimate the role of control and power in the translator relationship.[50] In this study, the doctor often engaged only with the translator and not the patient (Consultations 1 and 4), which deprived the patient of the chance to set the agenda. Eye contact with the patient, as well as questions directed to the patient while maintaining eye contact, is a more patient-friendly way to interact with the patient, and the patient remains the primary concern of the doctor. The nurse translator's familiarity with Patient 49's social environment and activities in Consultation 3, which was observed when she asked him about it while the doctor was writing notes, could also have inhibited the doctor from exploring more sensitive matters. For this same reason, it was unlikely that the patient would disclose sexual matters, even if the doctor created the opportunity. This brings us to the sexual history itself.

The way in which the sexual history questions were phrased were not tactful or patient-centered. Behavior that could increase the HIV risk was not discussed. As it was not possible to record the return of Patient 98 in Consultation 5 after the HIV diagnosis, we cannot conclude on the patient-doctor engagement after the test. However, considering the random HIV question and lack of justification for the test, it is unlikely there was meaningful interaction post-HIV testing. In Consultation 2, Doctor 9 applied the principle of family medicine regarding health education and prevention of disease. The patient received good advice on personal hygiene practices and was offered a PAP smear, but the advice may not be effective as the cause of these symptoms was not optimally explored. The health protection advice Doctor 11 gave the young man with the STI (Consultation 3) was generic and not person-centered. The doctor's judgmental "again" attitude blocked any meaningful engagement with the patient when the repetitive presentation of STI necessitates further exploration. With the high unemployment and poverty rate in the country, more men enter the commercial sex arena.[51,52] If that was the situation and he was HIV negative (which was not elicited or tested), the doctor could have offered pre-exposure prophylaxis,[7] also something could have been done to reduce future risks.

The scope and content of sexual history taking was unacceptable. None of the doctors did screening for sexual risks or sexual dysfunction. This could be due to a lack of knowledge regarding the prevalence or importance of sexual dysfunction in patients with hypertension and diabetes, the lack of skill, or the consultation structure where a lot of time was lost by doctors paging through the file, checking for laboratory results on their phones, and making notes. The planned electronic recordkeeping process could improve this, if it is rolled out.[53] Different resources should also be linked so that time can be saved looking for results and referral forms.

The study provided detailed information on the complexity of sexual history taking during a routine consultation and is relevant to primary health care in a rural setting. The video recording in this research might have elicitation bias for doctors but can also be a true reflection of practice.[54] The role of the patient in this consultation, help-seeking behavior and health literacy of the patient could also play a role, but this was not assessed.

## CONCLUSION

Nusbaum and Hamilton[55] suggested that sexual health care is compromised due to a lack of a proactive and preventative approach in the primary care setting. To be proactive, the doctor needs to know what they are dealing with; in other words, to take a comprehensive history. Research also suggests that evidence-based diagnosis and management, a good patient-doctor relationship and collaboration in the management approach can change sexual history taking.[56,57] Again, a comprehensive history could elicit sexual dysfunction or, at a minimum, an idea that the patient was not living a full life, but this is unlikely to occur if there is a poor doctor-patient relationship. Collaboration is possible if there is respect for the patient living with the illness and a willingness to connect and engage with a patient. Unfortunately, a willingness to engage, or receptiveness to the patient, appeared to be absent in the observed consultations. Althof et al[56] stated that sexual history taking must happen within a culturally sensitive context, incorporating the person's health literacy, lifestyle, unique background and relationship status; these were not observed in this study. Sexual history taking failed because the observed interaction between doctor and patient was superficial and, from the doctor's perspective, appeared to be focused on getting the patient out of the door.

Training is the key to upskilling doctors in terms of the clinical approach to a patient, consultation content and time management, but more importantly, an attitude shift around the importance of sexual wellbeing must happen. Doctors need to reflect on their practice and ask themselves if they are there to chase patient numbers or to render a comprehensive service. Dealing with patients with diabetes and hypertension must be a red flag regarding quality of life, which includes sexual wellbeing. The health system can support the doctor better with technology to prevent valuable consultation time being lost due to poor administration of files and laboratory results. Such changes are important, but these will be insufficient if doctors themselves do not change. This requires an attitude change on the part of the doctors involved, which will also involve having to deal with their personal perceptions of professionalism and their relationships with their patients.

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# CHAPTER 6

## 6. ARTICLE 3: PERSPECTIVES ON SEXUAL HISTORY TAKING IN CHRONIC PRIMARY HEALTHCARE CONSULTATIONS IN NORTH WEST, SOUTH AFRICA: DISCONNECT BETWEEN PATIENTS AND DOCTORS.

Chapter 5 displayed that doctors did not screen for SD and did poor screening for HIV and STI. it was thus important to determine the perceptions of patients and doctors on SHT. This article described the qualitative findings of the doctors' and patients' perspectives on SHT during a routine consultation.

This article was written in preparation for submission to ***Social Science & Medicine*****.** The article and references were formatted according to the journal's author guidelines. The journal requested a submission in six months' time as they had an increase of 80% in submissions. The article was then submitted to the African Journal for Primary Care and Family Medicine and is under review.

**Perspectives on sexual history taking in chronic primary healthcare consultations in North West, South Africa: Disconnect between patients and doctors**

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Background

Sexually history is rarely taken in routine consultations and research reported on common barriers doctors experience such as sex, age, and culture differences. This article focusses on how patients and doctors view sexual history taking during a consultation, and their perspectives on barriers to and facilitators of sexual history taking.

Aim

To explore doctors and patients' perspectives on sexual history taking during routine primary care consultations with patients at risk of sexual dysfunction.

Setting

The research was done in primary care facilities in the Dr Kenneth Kaunda Health District, North West province.

Method: This was part of grounded theory research, involving 151 adult patients living with hypertension and diabetes and 21 doctors they consulted. Following recording of routine

consultations, open ended questions on the demographic questionnaire and brief interactions with patients and doctors were documented and analysed using open inductive coding. The code matrix and relations browsers in MaxQDA software were used.

Findings:

There was a disconnect between patients and doctors regarding their expectations on initiating the discussion on sexual challenges and relational and clinical priorities in the consultation. Patients wanted a doctor who listens. Doctors wanted patients to tell them about sexual dysfunction. Other minor barriers were gender, age, and culture differences and time constraints.

Conclusion:

A disconnect between patients and doctors caused by the doctors' perceived clinical priorities and screening expectations inhibited sexual history taking in a routine consultations in primary care.

Keywords: Barriers; sexual history taking; receptiveness; patient-doctor engagement; communication; patient-centredness; sexual dysfunction

**Perspectives on sexual history taking in routine primary care consultations in North West, South Africa: Disconnect between patients and doctors**

*Introduction*

Doctors' consultation skills in relation to patients' sexual health in primary healthcare settings are largely unreported in South Africa. The doctor and patient engage around disease and medication during the clinical consultation in order to improve patient health.[1] Both bring their own past life, disease, and illness experiences, as well as cultural and gender perceptions, to the consultation. These attitudes and perceptions can act as barriers in the discussion and management of sexual challenges or can facilitate the sharing of sexual history by the patient. If no screening regarding sexual health occurs during a consultation, patients may leave feeling their expectations were not met or even negated.[2] Not addressing sexual challenges among patients may increase their sexual risk-taking to compensate for perceived sexual shortcomings, which may again lead to sexually related diseases and even relational conflict or violence.[3,4]

Some researchers suggest that spontaneous disclosure of sexual dysfunction occurs in approximately 3% of all consultations, irrespective of the diagnosis of the patient, which can improve to 16% if doctors ask about it, while others postulate it to vary between 14% and 20%.[5–8] Most of the studies on barriers of sexual history taking refer to high-risk patients, such as patients living with cardiovascular disease, hypertension, diabetes and other chronic conditions; these patients often form a proportion of the all the participants. In one of the biggest primary care retrospective studies of general patient visits in the Bronx, U.S.A.,( n=1347) researchers found that there was no history taking documented in 65% of the visits, and a full sexual history was taken in only 1.8% of the visits.[9] Doctors are adamant they will screen for sexual dysfunction when it is clinically indicated, by which they mean if it is the presenting complaint.[10,11] A mail survey conducted in a primary care setting in Atlanta, Georgia, documented high rates of self-reported screening; 58% of physicians in four specialties (obstetrics/gynaecology, internal medicine, general/family practice, paediatrics) claimed to ask their patients about sexual activity routinely, which improved to 79% if it was clinically indicated and relevant to the chief complaint.[12] Conversely, another USA study found that nearly 77% of geriatric fellows and programme directors were reluctant to take a sexual history in elderly patients and none screened for sexually transmitted infections due to gender and age differences and general discomfort with the topic.[13] About 30% of doctors

in Ireland considered themselves comfortable to discuss sexual topics with patients[14] Research on sexual dysfunction in South Africa is rare. A systematic review that covered research on sexual dysfunction, drawing on a South African sample between 1970 and 2014, reported no research on sexual history taking.[15]

Sexual history taking research usually reflects on perceptions of and barriers to sexual history taking. Common barriers are gender discordance, age differences between patient and service provider, sexuality in older people, culture, sexual orientation and poor communication.[2,7,11,16–21] These studies suggested that these barriers led to patient discomfort and fear of dismissal of their complaints. In Toronto, nearly 64% of female patients under the age of 30, and 50% of nulliparous patients, considered a male doctor or medical student taking a sexual history as problematic.[22] It seems that gender discordance in sexual history taking may be more than just dealing with the perceived gender of the patient or professional. Research suggested that female doctors, compared to their male counterparts, were perceived to be more empathic and did not interrupt the patient during the consultation, which facilitated disclosure of sexual challenges.[22] Another study in the USA highlighted that more system-related barriers, such as time constraints, no effective management, the number of patients to consult, years in practice or practice experience were significant issues that could be overcome to treat sexual dysfunction.[21] In-depth literature search revealed significant dearth of information on sexual history taking for sexual dysfunction in Sub-Saharan countries.

Considering the worldwide low screening rate and numerous barriers to sexual history taking, it seems healthcare workers do not perceive sexual dysfunction to be a big problem. Globally, however, up to 31% of males and 39% of females live with sexual dysfunction.[23,24] and this percentage increases significantly if certain medications and/or diseases are present.[25–28] Considering erectile dysfunction as a biomarker for coronary artery disease, it must be a screening priority.[29–31] Although sexual health research is not common in South Africa, research on male sexual dysfunction has raised serious red flags about the proportion of patients living with sexual challenges.[32–34] The most recent South African study found that 97% of diabetic male patients who frequented a primary healthcare clinic lived with erectile dysfunction.[34] Additionally, in South Africa, it has been reported that sexual challenges often result in conflict in intimate relationships, increase risk behaviour, are sometimes used to justify infidelity and contribute to unhappiness.[3,4,35]

Sexual history taking is not a luxury but a necessity in the management of hypertension, dyslipidaemia, diabetes, and cardiovascular diseases. In gaining a better understanding of the decision to take a sexual history, it is prudent to explore patients and doctors' perspectives. To empower both doctors and patients to discuss sexual dysfunction to improve patient well-being and management, we need to deal with the perceived barriers in sexual history taking.

*Aim of the study*

This research aimed to explore doctors and patients' perspectives on sexual history taking during routine primary care consultations with patients at risk of sexual dysfunction in North West Province, South Africa. This article will report how patients and doctors view talking about sexual matters and their perspectives on barriers and facilitators of sexual history taking.

*Methods*

This study contributes to a broader grounded theory research that used a qualitative approach to observe 151 video-recorded consultations of patients older than 18years, who were at risk of sexual dysfunction due to their diagnosis of hypertension and diabetes and/or the medication they used. This article covers open ended questions in the demographic questionnaire, as well as individual interaction, and comments documented as field notes.

Dr. Kenneth Kaunda Health District, in North West Province, was the selected research site. Mining and farming activities form the basis of socio-economic activities in the area. Approximately a quarter of the district's population, live in informal housing with poor to no infrastructure, such as piped water and sanitation. The Health District covers an area of 14,767 square kilometres and 28 doctors and numerous nurses provide healthcare to 707,479 individuals in 26 clinics and nine community health centres.[36] Patients attending these clinics have no choice of the doctors they consult, and doctors, especially the interns and community service doctors, rotate through various clinics, which means patients often see a new doctor each time.

The broader methodology of this study was reported in another article.[37] In short, there were three sampling strategies used: sampling of all the clinics with a doctor consulting at least once a week, followed by convenience sampling of all the doctors working at the sampled clinics, and purposive selection of patients living with diabetes and hypertension sampled consecutively as they consulted. Eleven clinics and 21 doctors participated in this study.

Numerous studies have shown that disclosure of sexual dysfunction varied between 14% and 20%.[38–40] If the midpoint is 17%, the researcher needed a sample size of 151 consultations to observe sexual history taking events, based on a 95% confidence interval. The sample size calculation was done on nQuery Advanced (Statistical Solutions Ltd, Cork, Ireland), Release 8.4.

A trained research assistant was tasked with obtaining consent from patients for the video recording of the consultation and the completion of the questionnaire following the consultation. The researcher was involved in the doctors' consenting to the video recording of the consultation and completion of demographic questionnaires at the end of the day after completing all the recordings. Patients and doctors received notification that the content of the consultation would be analysed, but not about the sexual dysfunction aspect as it could sensitise them. Excluded from the study were those patients too sick to participate and those who left directly after the consultation without completing the questionnaires. The video recording of the consultation only involved the doctor and patient who were alone in the consultation room. The research assistant speaks five of the 11 national languages and assisted patients in their home language in the recruiting and consenting phase of the study. The questionnaires were in English as it is a compulsory subject in schools, and patient-doctor engagement is mostly in English.

## Data Analysis

Data was obtained from open-ended questions in the demographic questionnaire, and comments documented in field notes. Patient and doctor comments captured in the field notes were qualitatively analysed using MaxQDA 2018. After reviewing the qualitative data, open inductive coding developed concepts from raw textual data, with a focus on seeking to understand the barriers and facilitators of sexual history taking in the consultation, as perceived by patients and doctors. Focused/axial coding systematically interconnected the categories into broad categories. Themes emerged for patients and doctors from the theoretical (selective) coding which will be contribute to the broader theoretical theme. A panel consisting of one family physician, a public health specialist and a general practitioner ensured agreement on the coding of the qualitative data.

*Ethics*

The Human Research Ethics Committee (Medical) of the University of Witwatersrand (M160557), the Facility Managers and the Directorate: Policy, Planning, Research, Monitoring and Evaluation of the Department of Health, North West Province, South Africa, approved the study.

*Limitations*

It was not possible at the time of data collection to have in-depth interviews with patients, and interaction with participants was limited to the questionnaire completion and spontaneous comments documented as field notes. Sexual dysfunction is multifaceted and so is the disclosure thereof. Help-seeking behaviour and health literacy would be valuable information to add to these findings. The results of the study apply to the context of the research.

*Results*

Twenty-one doctors consulted 151 patient participants living with diabetes and hypertension in this study. There was no sexual history taken for sexual dysfunction except in five (3%) consultations, where basic history taking attempted to address other sexual health topics. These findings were reported in another article[41].

*Participants' Demographic Data*

Forty-seven male (31%) and 104 female (69%) patients, as well as 21 doctors (15 men and six women) participated in this study. The biggest proportion of patients (60%) was Setswana speaking; 55 (36%) were married and 32 (28%) single. The median ages for patients were 49 and 55 years (men and women respectively) with the youngest female participant 19 years old and the youngest man 26 years old. The female doctors (26-34 years) were mostly younger than their male colleagues were (25-67 years), and both were either married or single. Four (19%) doctors shared the home language of the area, namely Setswana. The doctors and the patients differed in literacy levels, with 61 (40%) patients having only completed primary school education.

The male doctors had on average 21 years of work experience (median 16 years). Female doctors had less work experience, with a mean of 4 years and median of 3 years. The participants were familiar with nursing staff and clinic routine as 141 (93%) patients had consulted before at these clinics.

*Patients' perspectives on sexual-history taking*

Analysis of questions dealing with perceived barriers and facilitators of sexual history taking revealed that patient-participants had strong opinions on what would ease discussion of sexual matters with doctors. See Figure 1.

Two major themes reflect patients' perceptions influencing disclosure of sexual challenges, namely a receptive attitude and patient-doctor engagement (Figure 1). Receptive attitude, defined as the ability or skill to accept new information and be responsive to other people or ideas, included subthemes of openness and friendliness, listening, and sensitivity or patient-centeredness.

Openness or friendliness was the primary subtheme, and referred to a person who is pleasant, and easy to talk to and share ideas with (Figure 1).

> *"I will need the doctor to show kindness."* (Patient 70 – a 49-year-old man)
>
> *"The doctor must show humanity and give attention."* (Patient 74 – a 93-year-old woman)
>
> *"The doctors must be open and friendly to me and then I can trust them with my sensitive issues.*" (Patient 81- 64-year-old man)

The need for the doctor to listen was important for patient-doctor engagement. Listening denoted hearing, interpreting, and responding to what the patient was saying - it usually leads to more questions, appreciation, empathy, comprehension, or critical thinking actively and effectively:

> *"The doctor does not address my fears - why discuss anything else? …No one goes out of [their] way to help."* (Patient 138- 67-year-old woman)
>
> *"Doctors listening to us, spend time to listen to us."* (Patient 94 - 81-year-old woman)
>
> *"[I will not discuss sexual matters] If he does not have many questions and I have to ask more than he does."* (Patient 10 - 46-year-old woman)

Receptiveness (Figure 1) included a sensitivity, suggesting that patient care is respectful of, and responsive to, the patient's individual experiences, preferences, needs, culture, and values:

> "*If he asked, I would tell him my husband cannot do it anymore and doing it by hand takes too long … I am diabetic and get infections down there.*" (Patient 145 – 65-year-old woman)

"*I cannot tell about traditional stuff like going to the mountain as they will not understand.*" (Patient 91 – 26-year-old woman)

"*When I see he or she is sensitive to my problem and is attentive to what I say and feel.*" (Patient 4 – 36-year-old woman)

The second major theme was patient-doctor engagement, which represented the ability and willingness to choose to participate actively in the clinical encounter to achieve optimal clinical outcomes. Subthemes included perceptions of who must initiate the discussion of sexual problems and previous experiences (Figure 1).

"*The doctor must ask, as I will have knowledge of what I have and the problems I am accounting.*" (Patient 30 - a 50-year-old man)

"*The doctor must ask me." (Patient 2 – a 37-year-old man)*

*"The doctor we have now can ask anything and I will tell him." (Patient 43 – 48-year-old woman)*

*"I must ask, it will help me to know how to protect my loved ones." (Patient 14 – 24year-old-woman)*

The subtheme previous experiences suggested patients' attempts to discuss sexual dysfunction in previous consultations:

*"For past [the] 5 years [I had] no erection. Long ago I asked the doctor about it, but the doctor said I am too old for sex."* (Patient 85- 62-year-old man)

*"Still dreaming about it. Used to help myself after the wife died, but now (I am) too sick."* (Patient 105 – 74-year-old man)

Patient 19 (36-year-old man) said: *"What does it help you talk about it, they just worry about you drinking your medicine – if 4-5 [referring to penis] is weak, they do not worry. They do not hear us.*"

Two minor themes for patients that emerged were doctor characteristics and system or operational challenges (Figure 1). Doctor characteristics referred to an attribute or quality ascribed to the doctor and system, or operational challenges referred to the day-to-day management, organisation, or routine at the clinics.

Doctor characteristics linked the discussion of sexual challenges with the level of knowledge and competence, gender, and age of the doctor. The doctor had to be knowledgeable and competent, and well informed:

> *"Nothing [must stop me to disclose], because my doctor is the one who can give a right light to my sexual problems."* (Patient 125 – 64-year-old woman)

> "*When the doctor shows me his capabilities… I will tell them my problem.*" (Patient 54 – 53-year-old man)

The gender of the doctor played a role. It referred to similar gender of a patient and doctor, or the role gender plays in the initiation of the discussion:

> "*If the doctor is a female.*" (Patient 98 – 47-year-old woman)

Age of the doctor suggested that the age gap between patient and doctor must not be too big.

> "*[I will tell] when the doctor is matured enough, not the children we see.*" (Patient 82 51-year-old woman).

The system or operational theme dealt with day-to-day management, organisation or routine at the clinics and had three sub-themes, namely lack of privacy, workload and related waiting times, and continuity of care.

Lack of privacy: Referred to situations in which the doctor and patient were interrupted, or overheard by other people, and included an area where the patient could be examined without the risk of being seen by another person.

> "*Privacy. There should be no nurse in the consultation room.*" (Patient 123 – 55-year-old man)

Waiting times and workload referred to the number of patients for consultation or the time the doctor spends with each patient that causes longer waiting times.

> "*When the doctor has time. We wait so long…they have too many patients.*" (Patient 150 – 70-year-old man)

Continuity of care: Patients wanted the same dedicated doctor they could consult regularly:

> "*…if the doctor makes me feel comfortable after a long relationship with the same doctor.*" (Patient 110 – 46-year-old woman)

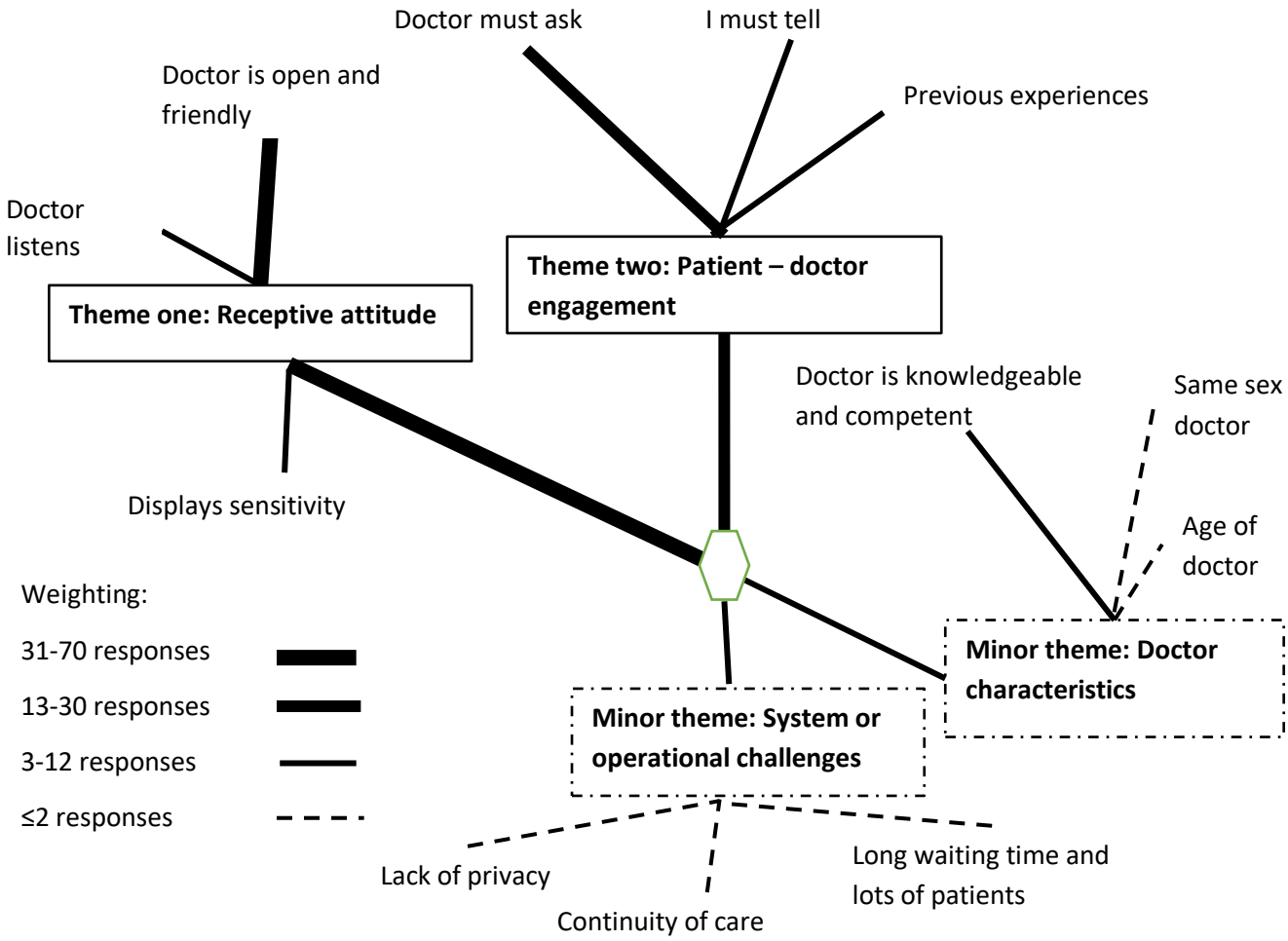


*Figure 1. Patient factors influencing willingness to discuss sexual challenges*

*Doctors' perspectives on sexual history taking*

One major theme and two minor themes emerged from the doctors' perceptions (Figure 2). The main theme was patient-doctor engagement, which reflected on the ability and willingness to choose to participate actively in the clinical encounter to have optimal clinical outcomes. Sub-themes were who must initiate the discussion on sexual challenges, the symptom as presenting complaint, exploring sexual dysfunction if it is clinically indicated and the patient's receptive attitude that will facilitate such a discussion.

Initiation of the discussion of sexual challenges appeared to be mainly the responsibility of the patient:

> "*I often ask about HIV and STI, but not sexual dysfunction. I assume if it is a problem, they will raise it.*" (Doctor 04 – 25-year-old male doctor)

"*So, who do they think must help them? That is not something one… uhm...I will address if somebody does not talk to me about it*." (Doctor 11 – 28-year-old female doctor)

"*Hmmmm…I don't know. [Doctor laughs] Wait! They expect us to ask that*?" (Doctor 07 – 47-year-old male doctor)

Addressing sexual dysfunction is only when it is the presenting complaint, e.g., when the patient presents at the doctor complaining of sexual challenges and seeks help for it:

"*If it is a problem, they will come to me and say this is the problem today. Till they seek help for it, it is not a problem*." (Doctor 20 – 55-year-old male doctor)

Doctors indicated they would explore sexual dysfunction if clinically indicated. Clinically indication referred to when the sexual challenge is involving or related to clinical treatment:

Doctor 17 (25-year-old male doctor): "*Look, we have so much to do. I cannot ask everything. When it is indicated I will ask.*"

Researcher: "*Is it indicated in diabetic and hypertensive patients?*"

Doctor 17: "*In very few of them – usually after they have been sick for years.*"

*"…if indicated but we see not a lot of them. I know the patient and read the file. It will be indicated.*" (Doctor 14 – 39-year-old male doctor)

Doctors believe patients must indicate a receptive attitude to discuss sexual challenges. They must demonstrate the ability or skill to accept new information and be responsive to other people, their needs, or ideas:

"*Patients must also be open and willing to discuss sensitive topics.*" (Doctor 14 – 39-year-old male doctor)

One minor theme was system or operational challenges, which signified the day-to-day management, organisation, or routine at the clinics. The lack of time and workload, as well as other priorities were prominent sub-themes and often interlinked.

Doctors mentioned they had other priorities to consider. Other priorities described disease management as complex and multi-faceted; it also referred to control targets, side effects of medication and adherence. Linked to priorities was the lack of time and the number of patients for consultation, leading to insufficient time for the doctor to dedicate to one patient:

Reflecting on a patient in a previous consultation, Doctor 01 – 37 years old male, shared, "*..after I spoke to him for such a long time, I think because he realised, okay, he can talk to me, then he opened up and he said, he has a girlfriend and he's not able to perform….so I said, okay, no problem, we'll sort it out, but obviously the hypertension is life threatening, this on the side is not, so it is not a priority.*"

*"…we have so much to do and to check, and there is this long queue of patients waiting, even if I did think about it, it is not a priority." (*26-year-old male doctor)

The lack of privacy and a shortage of management options, in terms of resources for treating sexual dysfunction, were sub-themes of the system and operational challenge minor theme. Lack of privacy meant consultation interruptions, or other people overhearing. It included areas where patients can undergo examinations without the risk of others seeing.

"*I cannot talk about these things with the nurses in and out of the room – the patients are their neighbours, friends…."* (Doctor 12- 31-year-old female doctor)

Lack of management options where the healthcare system does not have medication or other resources to manage sexual dysfunction:

*"Howa!* [A South African expression of surprise or indignation] *You want me to talk about things like ED and then I cannot give something to help? If you talk about it, patients want something to make it better. We have nothing."* (Doctor 20 - 55-year-old male doctor)

The second minor theme was personal limitations. This depicted personal areas that doctors see as lacking in themselves, which can be addressed with professional development. Six subthemes emerged.

Lack of skill (no skill to initiate discussions on sexual matters):

"*I do not know how to start the conversation*." (Doctor 06 - 40-year-old male doctor)

The lack of knowledge (about sexual dysfunction and its management):

"*Well, it depends if it's like… if it's an erectile dysfunction, then that I have some idea but to be honest, anything other than that, not really…not really…"* (Doctor 01 – 37 years old male doctor)

Language differences (language can differ in vocabulary, dialect and have different social connotations attached to words):

*"Patients talk in codes when they referred to sexual organs and sexual activities. I also cannot speak Tswana, so I cannot speak to the heart of the patient"* (Doctor 25 - 26-year-old female doctor)

Culture and gender differences (culture differences and its impact on discussion of matters of sensitive nature, and gender differences or similarities between a patient and doctor, or the role gender plays in the initiation of the discussion):

*"In my culture you do not go around and ask a lady about sexual issues. It is not done. What in any case if they think it is sexual harassment? "*(Doctor 03 - 35-year-old male doctor)

"It is easier if it is a man." (Doctor 14 – 39-year-old male doctor)

Personal values and religion (it inhibits discussing sexual matters with some groups of people):

"*It is against my values and religion to talk about sex with patients who are not married.*" (Doctor 18 - 55-year-old male doctor).

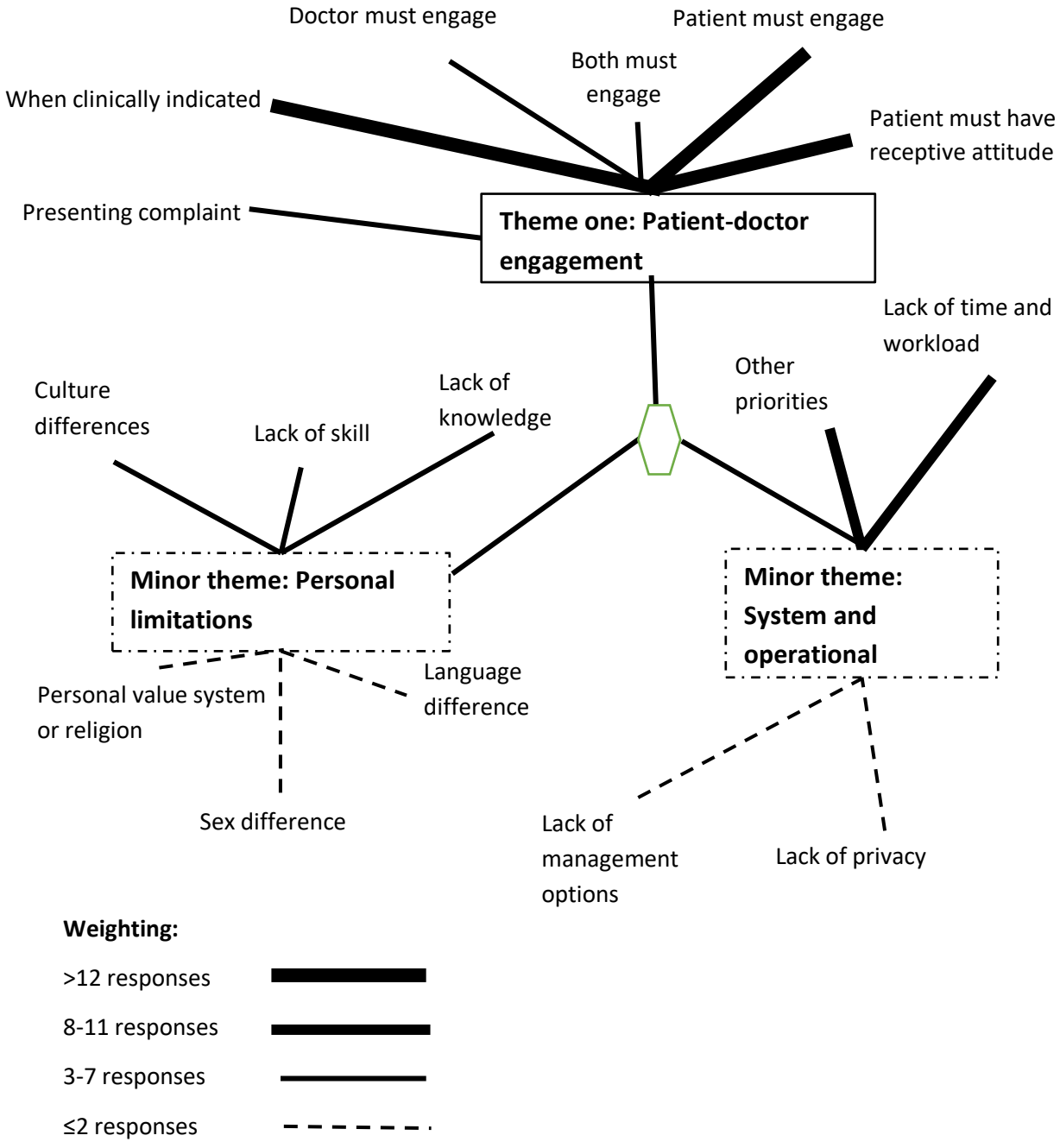


Figure 2. Doctors' responses on facilitators and barriers of sexual history taking

The core finding of this study was the total disconnect between patients and doctors (Figure 3).

The patients and doctors' expectations differed substantially. Patients wanted a friendly doctor, to listen to them. They trusted the doctor to share his skill and knowledge and because he is perceived to know more, and thus to ask questions about their sexual challenges. By contrast, the doctors thought that despite being comfortable discussing

sexual dysfunction, they have too much to do in a short period of time focusing on treatment priorities, and if the patient has sexual dysfunction, the patient will and must tell them.

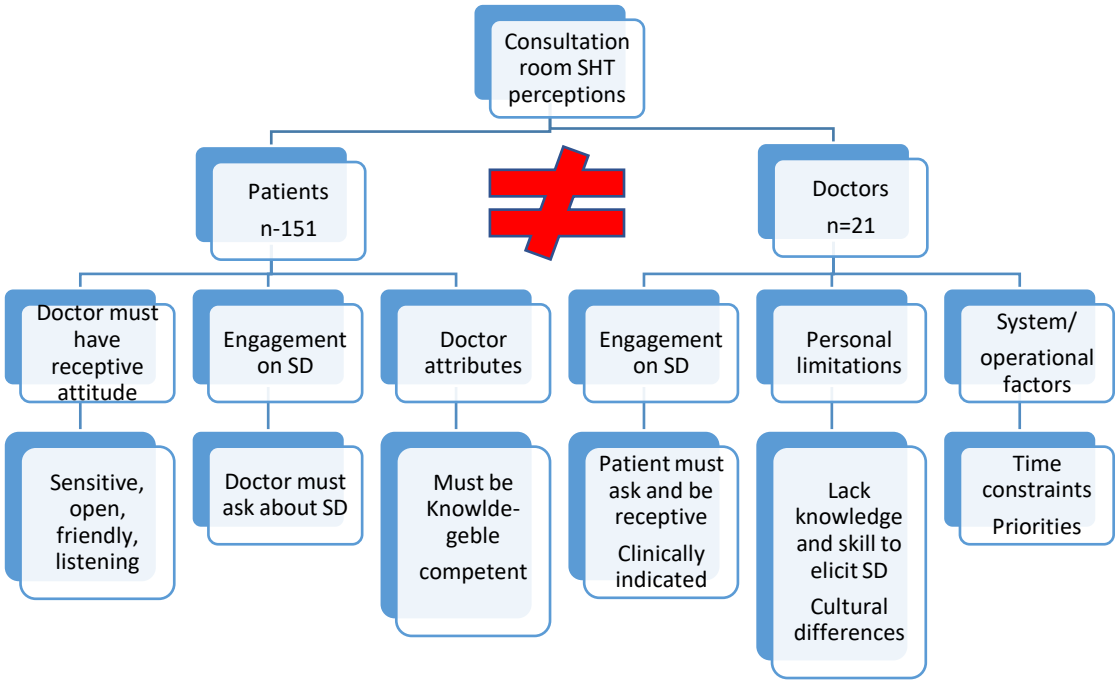


Figure 3: Key Findings on Barriers and Facilitators of SHT

SHT: Sexual history taking

SD: Sexual dysfunction

*Discussion:*

In exploring doctors and patients' perspectives on sexual history taking during chronic primary healthcare consultations with patients at risk of sexual dysfunction in North West Province, South Africa, it was clear there is a critical disconnect between the two regarding their perspectives on and expectations of the discussion of sexual dysfunction during a consultation. Both groups shared the perception that the patient-doctor engagement is essential for such a discussion to take place; however, they perceived it differently. Doctors expected patients to present with sexual challenges, otherwise they would not ask. Conversely, patients expected doctors to ask about sexual challenges otherwise they would not speak about it. It is noteworthy that receptiveness (openness, friendliness) emerged as important for both groups (as a major theme for patients and a sub-theme for doctors), yet the extent to which this occurred in consultations was clearly part of the disconnect, because the experience of the patients was that doctors failed to listen to them; this was supported by patients sharing negative experiences of what happened when they raised sexual challenges with their doctors. Listening is a core skill in communication and determines the

quality of the consultation.[42] From patients' accounts they did not feel the doctors really listened to them, alternatively they were not heard. The patients experienced the patient-doctor engagement as more of a one-sided checklist exercise than a meaningful interaction. When the doctor does not apply the ability or skill to accept new information and perceived as unresponsive to the patient, their needs or ideas, the patients do not reciprocate; doctors then perceive the patient as non-receptive, which becomes a barrier in the interaction process.

Although both groups mentioned receptiveness as a factor for interaction, the presentation of the sexual challenge, as well as the knowledge and the skill of the doctor played a role in initiating the discussion. Not introducing the topic of sexual dysfunction has severe implications for the patient's interpersonal relationship and overall wellbeing.[10,43] Patients had an expectation that the doctor knew more and would thus ask them. A study on help-seeking behaviour and sexual dysfunction conducted in Ghana found that 31% of 407 women did not know sexual dysfunction was a medical condition, whilst 29% thought it was normal.[44] If a doctor does not make the link for the patient and diagnose sexual dysfunction, there will be no discussion during the clinical encounter, and the patient will not receive help or gain a better understanding about the problem. By contrast, doctors expected patients to raise sexual dysfunction, either as a presenting complaint or during the consultation. Doctors left an opening, saying that if it were clinically indicated, they would discuss it. However, they consulted numerous patients living with diabetes and hypertension, the disease and treatment are known to cause sexual dysfunction, yet this was not enough of a clinical indication to discuss sexual challenges. It is thus difficult to understand what might be considered an appropriate clinical indication; this was not explored, but it seems there was an expectation that the 'clinically indicated' was seen to be a sexual challenge raised as part of a presenting complaint. It seems doctors are trained using algorithms in learning material that mostly focus on initiating the sexual history as presenting complaint and more often for sexually transmitted infections and HIV.[2,45,46] Researchers also agree that a structured approach, such as the PLISSIT model (Permission, Limited Information to dispel myths, Specific Suggestions directly related to the particular problem, and Intensive treatment), and communication skills are crucial tools for the doctor to introduce sexual history.[22,47,48] In this study, the patients' and doctors' disconnect seemed to be the biggest barrier in history taking for sexual dysfunction.

Patients and doctors also shared an understanding that what happened in the consultation, including sexual history taking, was influenced by the characteristics of the two parties involved, as well as system or operational challenges of the context in which this consultation occurred. Age, gender, language, and culture differences were common characteristics identified by both groups as barriers for the discussion of sexual dysfunction. Surprisingly, participants revealed time constraints as a barrier, but did not attribute the same importance to gender, culture, and age as barriers to sexual history taking that other studies found.[2,22,49–51] This could be contributed to mindfulness; due the research methodology of recording actual consultations that heightened the actual awareness of being in the moment of the consultation where other factors were more prominent than age, culture or gender. In South Africa, one cannot ignore diversity. Although not mentioned by the participants in this study, we know that gender roles, health literacy and the inability to express oneself in a second language, which are part of the diversity issue, can compromise the patient doctor engagement too.[52,53]

The doctors raised lack of knowledge as a barrier, which also contributed to the perception of a lack of management options. While it is true that the public healthcare sector in South Africa does not have medication to treat sexual dysfunction at primary care level, it is a misconception that only medication is needed to manage it. We know that psychosocial intervention for sexual dysfunction can also change wellbeing of patients, more so for female patients[54]

Both patients and doctors mentioned long waiting times, privacy, and workload. Although not considerable in terms of the number of responses in this study, time constraints have been indicated in other studies to be barriers to sexual history taking.[50,51] Time constraints and workload as a minor theme was another surprise. It is common knowledge that the South African public health sector is under pressure. Besides the number of doctors, South Africa is plagued with the quadruple burden of disease (communicable diseases (HIV, TB); non-communicable diseases; maternal and child health; violence and injury), all which lead to extended consultations. Gude et al.[55] showed that a few more minutes in a consultation actively engaging with a patient, makes a difference in the patient-doctor relationship and consultation outcomes. A point of concern, but also seen in the context of time constraints and workload, is the perception that doctors have other priorities than considering sexual wellbeing during the consultation. Doctor 01, on reflecting on a previous patient encounter, decided with confidence that the patient's hypertension was more important than the concerns the patient expressed, despite the patient raising the concern. Kingsburg[2] also

suggested that patients feared their complaints would be dismissed despite verbalising sexually challenges. It seems in this study, the doctor set the agenda for the consultation thus negating the patient's needs, with no negotiation on management. Could training change patients' and doctors' perceptions?

Continuous evaluation and training form the core of professionalism. Numerous studies suggested that training on sexual history taking changes the practice for doctors.[12,18,56,57] As it is an interactive process between doctors and patients, we can start to improve awareness of patients. Pamphlets or posters could increase patients' awareness of their right to discuss sexual dysfunction with their doctors. It will however not change the doctors' interaction if they do not listen to patients or continue to determine the priorities in the consultation. The question is also if it is ethical to make the patient responsible if the doctor has a duty to address disease, its comorbidities, and the possible side effects of medication. To improve the quality of the clinical outcome, we need to make doctors culturally competent and consequently improve communication. This means an awareness of the linguistic and cultural diversity that goes beyond race and ethnicity, how it impact on the help seeking behaviour, and the understanding of disease and expectations of the clinical encounter.[53,58] Patient-doctor communication on sensitive matters must also improve significantly.[53] Furthermore, doctor's attitudes regarding their role to make decisions on behalf of a patient must change; they need to reflect on their commitment to patients and their care, and ensure continuity of care to build trust and collaboration.[59] A patient-centred approach, where both the doctor and the patient participate in the consultation and negotiate priorities and management thereof, will improve the chances for a patient to disclose sexual dysfunction and get appropriate help. As a last resort, continuous medical education can improve doctors' knowledge on diagnosis of sexual dysfunction and its different treatment modalities.

*Conclusion*

This study concluded that a disconnect between patients and doctors caused by the doctor's perceived clinical priorities and expectation that a patient must raise the topic, inhibited sexual history taking. Factors that could improve history taking were that the patient must either present with sexual dysfunction or tell the doctor. Overall, a lack of cultural competence and the absence of an inclusive patient-centred approach contributed to missed opportunity to screen for sexual challenges.

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# CHAPTER 7

## ARTICLE 4: NEGLECTED SEXUAL DYSFUNCTION SYMPTOMS AMONG CHRONIC PATIENTS DURING ROUTINE CONSULTATIONS IN RURAL CLINICS IN NORTH-WEST PROVINCE.

Chapter 6 exposed the disconnect between doctors and patients which went beyond different expectations of screening for SD. It also included the doctors' perception about the prevalence and importance of SD. This article reports on the proportion of the patients living with diabetes and hypertension who participated in the recording of the routine consultations also lived with sexual dysfunction symptoms. These symptoms were not elicited during the consultations. The purpose of the assessment of SD was part of the triangulation of the qualitative study to determine if doctors missed SD during the consultations. The aetiology of the sexual dysfunction symptoms were not explored.

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# Neglected sexual dysfunction symptoms amongst chronic patients during routine consultations in rural clinics in the North West province

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**Background:** Sexual dysfunction contributes to personal feelings of loss and despair and being a cause of exacerbated interpersonal conflict. Erectile dysfunction is also an early biomarker of cardiovascular disease. As doctors hardly ever ask about this problem, it is unknown how many patients presenting for routine consultations in primary care suffer from symptoms of sexual dysfunction.

**Aim:** To develop an understanding of sexual history taking events, this study aimed to assess the proportion of patients living with symptoms of sexual dysfunction that could have been elicited or addressed during routine chronic illness consultations.

**Setting:** The research was carried out in 10 primary care facilities in Dr Kenneth Kaunda Health District, the North West province, South Africa. This rural area is known for farming and mining activities.

**Methods:** This study contributed to a broader research project with a focus on sexual history taking during a routine consultation. A sample of 151 consultations involving patients with chronic illnesses were selected to observe sexual history taking events. In this study, the patients involved in these consultations completed demographic and sexual dysfunction questionnaires (FSFI and IIEF) to establish the proportions of patients with sexual dysfunction symptoms.

**Results:** A total of 81 women (78%) and 46 men (98%) were sexually active. A total of 91% of the women reported sexual dysfunction symptoms, whilst 98% of men had erectile dysfunction symptoms. The youngest patients to experience sexual dysfunction were a 19-year-old woman and a 26-year-old man. Patients expressed trust in their doctors and 91% of patients did not consider discussion of sexual matters with their doctors as too sensitive.

**Conclusion:** Clinical guidelines, especially for chronic illness care, must include screening for sexual dysfunction as an essential element in the consultation. Clinical care of patients living with chronic disease cannot ignore sexual well-being, given the frequency of problems. A referral to a sexual medicine specialist, psychologist or social worker can address consequences of sexual dysfunction and improve relationships.

**Keywords:** sexual dysfunction; failure to care; diabetes; hypertension; sexual history; screening.

## Introduction

When considering sexual health, family planning and sexually transmitted infections are often the first things that come to mind and not sexual functioning. Yet, an estimated 14% of 12 097 patients in primary care are estimated to be coping with some form of sexual dysfunction.[1] Chronic disease, medication side effects and age are commonly associated with sexual challenges and bring the clinician and patient together in the clinical encounter.[2,3,4,5] Doctors should screen for reproductive health issues, sexual dysfunction and sexual risk behaviour when indicated.[6] Often doctors will avoid such screening as the literature suggests that less than 70% of them feel uncomfortable to talk about sex.[7,8]

Patients also play a role in whether there is any discussion of sexual dysfunction during the consultation. Patient disclosure rates of sexual dysfunction during a consultation vary from 14% spontaneous disclosure to 20% if the clinician asks.[9,10,11] Kingsberg et al. postulated that 68% of American men and women feared they would embarrass their clinician if they talked about sexual

problems and 71% feared their complaints would be dismissed.[12] An African study suggested that female patients were often unaware that sexual dysfunction was an illness or that they could get help from their doctors.[13] By not discussing sexual dysfunction, patients are stuck with their understanding and misconceptions about the symptoms they experience and try to find their own remedies, some of which are potentially harmful.[14] Not dealing with sexual challenges contributes to perceptions of infidelity, mistrust and intimate partner conflict and feelings of loss of masculinity, humiliation and despair.[15,16,17,18]

Sexual dysfunction is a common challenge for diabetic and hypertensive patients, frequently worsened by the lack of screening for and management thereof. Globally about 25% of people have arterial hypertension, which increases the risk of coronary artery disease and may precipitate sexual dysfunction.[19,20] Although erectile dysfunction is not an independent cause of mortality, it is considered a biomarker for coronary artery disease.[21,22] Hypertension has been linked to erectile dysfunction in men and lubrication and orgasmic challenges in women.[7,20] Essential hypertension is commonly associated with female sexual dysfunction.[23]

Diabetes may also add to sexual distress. A meta-analysis of 145 studies showed erectile dysfunction is 3.5 times more likely to occur in men with diabetes when compared with a control group and overall 52.5% of diabetic males lived with erectile dysfunction.[24] A recent study in South African primary care suggested that 97.3% of men with diabetes lived with erectile dysfunction.[25] Sexual dysfunction in women with diabetes is often neglected, despite the fact that they suffer similar neuropathy, endocrine changes and vascular complications to men.[26] A meta-analysis on sexual dysfunction and diabetes suggested that women living with diabetes were 2.02 times more likely to have sexual dysfunction than women in control groups.[27] In Italy, of 595 women living with diabetes about 53.4% had sexual dysfunction with a significant difference ($p = 0.001$) between menopausal (63%) and non-menopausal women (41%).[28] In a comparative study between 72 healthy and diabetic women in Turkey, the most common symptom found amongst the latter was lack of libido (77%), followed by diminished clitoral sensation (62.5%), orgasmic disorder (49%) and vaginal dryness (37.5%).[29] A small study in Nigeria found that women with diabetes were less likely than a healthy control group to attempt sexual intercourse and experience arousal, pain and orgasm symptoms.[30]

No research has been carried out in primary care settings in South Africa to assess sexual dysfunction that can be potentially elicited during a recorded consultation. For this reason, the researcher aimed to observe sexual history taken during video-recorded routine consultations in rural primary care clinics. To improve rigour of the qualitative study, the researcher wanted to know in what proportion of these patients, sexual dysfunction was present.

The aim of the research was thus to determine, in a sample of patients with chronic illness participating in recorded consultations with primary care doctors, the proportion of patients living with symptoms of sexual dysfunction that could have been elicited or addressed during these consultations. The researcher also wanted to determine if the same patients expressed trust in their doctors and a willingness to discuss sensitive matters with them.

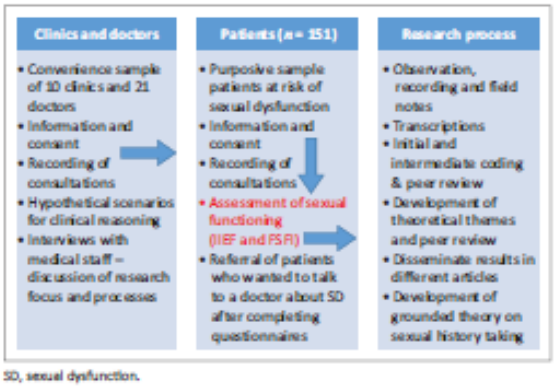
## Research methods and design

This study used a quantitative design to gather information, which would supplement broadly grounded research theory, to describe the sexual history taking process required to improve disclosure of sexual health issues during a clinical encounter with a clinician (Figure 1). The methodology of the overarching research project was reported in detail in another article.[21]

The study was carried out in the Dr Kenneth Kaunda Health District in the North West province. Most of the districts in this province can be considered rural. Mining and farming activities contribute to the economy of the area. Unemployment was a challenge for 37.2% of the local population at the time of the research.[22]

Consecutive adult patients living with diabetes and hypertension were purposefully selected based on the high risk of sexual dysfunction in these patients. The expected level of disclosure of sexual dysfunction was based on the literature was used to estimate the number of consultations that would be required to monitor 10 to 15 sexual history taking events A sample of 151 patients was thus selected for the overall research project; this sample was used as the cohort for the present study.

A trained research assistant recruited consecutive patients after they collected their files and had vital signs recorded. A total of 151 patients consented and participated. The research assistant informed the patients of the study and obtained consent in the patient's home language both for video recording of the consultation and the completion of the




SD, sexual dysfunction.

**FIGURE 1:** Assessment of sexual dysfunction as part of the broader study.

questionnaire following the consultation. The patients completed a standardised questionnaire, namely Female Sexual Function Index (FSFI)[33] for women and the International Index of Erectile Function (IIEF)[34] for men assessing their sexual response for the previous 4 weeks. These questionnaires have not currently been validated in South Africa, but as they were designed based on Diagnostic and Statistical Manual of Mental Disorders (DSM) IV (now DSM-5) diagnostic criteria[35] and the ICD10,[36] both of which were considered appropriate to be used in South Africa. The questionnaires were administered in English, and the multilingual research assistant explained definitions of every category to the patients in their language of choice.

The researcher and research assistant collected all the data over 9 weeks and captured information nightly, checking with each other. The quantitative data were analysed using SAS (SAS Institute Inc., United States of America) Release 9.4. Descriptive statistics was used in the analysis applying a 95% confidence level. The age distribution passed the Shapiro–Wilk test for normality. Chi-square and Fisher's exact test were carried out for association between demographic variables and sexual dysfunction.

### Ethical considerations

The study was approved by the Human Research Ethics Committee (Medical) of the University of the Witwatersrand (M160557), as well as the facility managers and the Directorate for Policy, Planning, Research, Monitoring and Evaluation of the Department of Health, the North West province, South Africa. Permission to use the questionnaires was obtained from Taylor and Francis online resource bank.

## Results

A total of 21 doctors were video-recorded during routine consultations of 151 patients and no sexual history taking for sexual dysfunction was observed in the recordings. These results were reported separately.[31] The focus of this study was to report on the actual sexual dysfunction symptoms that these patients experienced, as well as their willingness and trust to discuss it with their doctors.

The distribution of participants was 104 (69%) women and 47 (31%) men. The study participants had a normal age distribution: men (aged 26 to 74) and women (aged 19 to 93). Women mentioned longer duration of relationships with a partner than men (Table 1). A total of 24 participants (16%) indicated that they were not sexually active (Table 1), for a variety of reasons. A total of 23 women were not sexually active: 11 (11%) abstained as they were afraid of contracting HIV, nine (6%) considered themselves too sick for sexual activity, two did not have opportunity to be sexually active and one abstained from sexual intercourse because of a history of rape. A 48-year-old man reported that he had not been sexually active for a long time because of erectile dysfunction. The participants who were not sexually active were excluded from the analysis of the sexual dysfunction questionnaires.

**TABLE 1:** Demographic data of participants.

| Demographic criteria | Male patients (*n* = 47) | | Female patients (*n* = 104) | |
|---|---|---|---|---|
| | *n* | % | *n* | % |
| **Age (years)** | | | | |
| Age range | 26–74 | - | 19–93 | - |
| Mean | 45 | - | 53 | - |
| Median | 49 | - | 55 | - |
| **Marital status** | | | | |
| Divorced | 3 | 6 | 5 | 5 |
| Estranged | - | - | 1 | 1 |
| Live together | 5 | 11 | 5 | 5 |
| Married | 17 | 36 | 38 | 37 |
| Separated | 2 | 4 | - | - |
| Single | 14 | 30 | 29 | 28 |
| Widowed | 6 | 13 | 26 | 25 |
| Not sexually active | - | - | - | - |
| Not sexually active | 1 | 2 | 23 | 22 |
| **Level of education** | | | | |
| No formal education | - | - | 1 | 1 |
| Primary School (Gr 0–7) | 19 | 40 | 42 | 40 |
| Secondary school (Gr 8–12) | 25 | 53 | 52 | 50 |
| Tertiary training | 3 | 6 | 9 | 9 |
| **First language** | | | | |
| Afrikaans | - | - | 13 | 13 |
| English | - | - | 1 | 1 |
| IsiXhosa | 11 | 23 | 9 | 9 |
| IsiZulu | 1 | 2 | 2 | 2 |
| Sesotho | 6 | 13 | 18 | 17 |
| Setswana | 29 | 62 | 61 | 59 |
| **Duration of relationship (years)** | | | | |
| Relationship range | 1–35 | - | - | - |
| Mean | 9.2 | - | - | - |
| Median | 5 | - | - | - |
| Mode | 2 | - | - | - |
| Missing data | 7 | - | - | - |

A total of 96 (64%) patients lived primarily with hypertension, while 11 (7%) patients lived with diabetes, and 44 (29%) patients had both diabetes and hypertension. Comorbidities included dyslipidaemia (29%), HIV (19%), epilepsy (7%), depression (3%) and tuberculosis (2%). Presenting complaints as recorded in the patients' files were captured during data collection; some patients had more than one complaint, whereas 14 (9%) patients did not have any information recorded in that section (Table 2). Two patients had sexually related complaints, namely pain after intercourse and a sexually transmitted infection. Patients frequently used more than one medication that potentially could cause sexual dysfunction such as beta- and calcium-channel blockers and nearly all the patients used diuretics (Table 2).

### Female sexual dysfunction

A total of eight (5%) female patients disclosed spontaneously that their partners suffered sexual dysfunction, which affected their expression of sexuality. Of the 81 sexually active women, 76 (94%) women had FSFI scores < 26.55,[36]

which are suggestive of overall sexual dysfunction. A total of 73 (90%) women lived with low desire symptoms and only five (6%) considered themselves satisfied with their expression of sexuality. All the women had scores suggestive of challenges with lubrication and orgasm and 83% reported pain symptoms.

## Male sexual dysfunction

According to the IIEF results, 36 (78%) male patients met all the criteria for sexual dysfunction and 11 (24%) were satisfied with their overall sexual health (Table 3). A total of 14 (30%) participants experienced severe dysfunction in overall satisfaction, and the same number experienced intercourse dissatisfaction (Table 3). Only one man (2%) reported to have normal erectile function and one (2%) intercourse satisfaction. A total of 30 (64%) men lived with orgasmic challenges (Table 3).

**TABLE 2:** Presenting complaint and prescribed medication.

| Presenting complaint | Male (n = 47) | | Female (n = 81) | |
|---|---|---|---|---|
| | n | % | n | % |
| Repeat scripts/chronic follow-up | 23 | 49 | 38 | 47 |
| Pain (back, joints, abdominal, lower limbs) | 12 | 26 | 15 | 19 |
| Undifferentiated (dizziness, fatigue) | 3 | 6 | 8 | 10 |
| Results (histology, blood, etc.) | 2 | 4 | 5 | 6 |
| Administrative reasons | 2 | 4 | 1 | 1 |
| Sexually transmitted infections (STI) | 1 | 2 | - | - |
| Visual complaints | 1 | 2 | 2 | 3 |
| Other (deep vein thrombosis, breast mass, seizures) | 1 | 2 | 9 | 11 |
| Pain after intercourse | 0 | 0 | 1 | 1 |
| Stress | 0 | 0 | 1 | 1 |
| Missing data | 4 | 8 | 7 | 9 |
| Total number of complaints | 49 | - | 87 | - |
| **Medication used** | | | | |
| Anticonvulsant† | 4 | 9 | 1 | 1 |
| Antipsychotic† | 1 | 2 | 1 | 1 |
| Antiretroviral therapy † | 8 | 17 | 10 | 12 |
| Benzodiazepine† | 1 | 2 | - | - |
| Beta-blocker† | 10 | 21 | 20 | 25 |
| Calcium-channel blocker† | 11 | 23 | 33 | 41 |
| Diuretics† | 40 | 85 | 81 | 100 |
| Lipid lowering agent† | 7 | 15 | 31 | 38 |
| Monoamine oxidase inhibitor† | 1 | 2 | 2 | 2 |
| Selective serotonin reuptake inhibitor† | 1 | 2 | 3 | - |
| Tricyclic antidepressant† | 4 | 9 | 6 | 7 |
| Acetylsalicylic acid | 2 | 4 | 9 | 11 |
| Angiotensin-converting enzyme inhibitors | 11 | 23 | 27 | 33 |
| Biguanides | 8 | 17 | 23 | 28 |
| Insulin | - | - | 5 | 6 |
| Sulphonylureas | 1 | 2 | 6 | 7 |

STI, sexually transmitted infections; DVT, deep vein thrombosis
†, Medication potentially causing sexual dysfunction.[4]

## Overall sexual dysfunction for men and woman and age

In terms of overall sexual dysfunction, most women (71%) experienced sexual dysfunction between the age of 41 and 70 years, unlike male sexual dysfunction that was more prominent between the age of 31 and 50 years (Figure 2). There was no statistical association between male or female sexual dysfunction and age, marital status, medication and living with diabetes or hypertension in this study.

## Perceptions of patients on disclosure of sexual dysfunction

The demographic questionnaire provided information on the patients' perceptions of discussing sensitive matters such as sexual challenges. Answers to a question exploring whether patients would disclose sexual dysfunction to their doctors reflected that the majority of patient participants (77%) trusted their doctors all the time and only one patient did not trust doctors at all. A total of 85% of the participants considered sexual well-being as a general health matter and 91% did not perceive discussing sex with a clinician as a sensitive topic. A majority (74%) believed a clinician had to know about intimacy challenges.

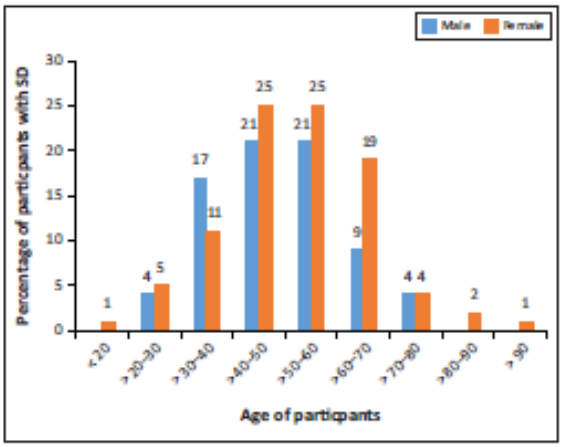



**FIGURE 2:** Percentage of male and female sexual dysfunction based on age category.

**TABLE 3:** International Index of Erectile Function individual domain frequencies and range of male sexual dysfunction symptoms.

| Degree of sexual adequacy for the domain† | Overall satisfaction | | Erectile function | | Orgasmic function | | Sexual desire | | Intercourse satisfaction | |
|---|---|---|---|---|---|---|---|---|---|---|
| | n | % | n | % | n | % | n | % | n | % |
| No sexual dysfunction | 11 | 24 | 1 | 2 | 2 | 4 | 5 | 11 | 1 | 2 |
| Mild sexual dysfunction | 4 | 9 | 11 | 24 | 2 | 4 | 12 | 26 | 6 | 13 |
| Mild to moderate challenges in sexual dysfunction | 10 | 22 | 17 | 37 | 6 | 13 | 10 | 22 | 6 | 13 |
| Moderate sexual dysfunction | 7 | 15 | 7 | 15 | 6 | 13 | 13 | 28 | 19 | 41 |
| Severe sexual dysfunction | 14 | 30 | 10 | 22 | 30 | 65 | 6 | 13 | 14 | 30 |
| Total number of participants | 46 | 100 | 46 | 100 | 46 | 100 | 46 | 100 | 46 | 100 |

† Explanation of categories in relationship to responses:[36] Severe sexual dysfunction (SD), Almost always or always; Moderate SD, Most times (much more than half the time); Mild to moderate SD, Sometimes (about half the time); Mild SD, A few times (much less than half the time); No SD, Almost never.

## Discussion

It was important to know what proportion of this purposive sample of patients lived with symptoms of sexual dysfunction that could have been elicited or addressed during the recorded consultations. It was expected, as it was a high-risk patient sample, that history taking for sexual dysfunction would be observed.

The proportion of participants with sexual dysfunction symptoms in this study was high. For women the proportion with sexual dysfunction symptoms (94%) was considerably higher than a questionnaire-based study of 1219 women in Brazil where 49% of women had at least one sexual dysfunction symptom and women with diabetes presented with low sexual desire and orgasmic disorder.[37] A study in Jordan found that 59.6% of women older than 50 years with diabetes ($n$ = 613) had sexual dysfunction versus 45.6% of their comparison group of non-diabetic women ($n$ = 524).[38] The Jordan study also found that desire, arousal, lubrication and orgasm challenges were more prominent in older diabetic women, whilst our data showed that all ages presented lubrication, orgasm and pain challenges associated with both diabetes and hypertension.[38] Similar to our study, a meta-analysis of 31 studies on sexual dysfunction in women with hypertension found that there was no statistical association between sexual dysfunction in women and medication such as beta-blockers, angiotensin-converting enzyme inhibitors, angiotensin receptor blockers, calcium channel blockers and diuretics.[39]

As causes of sexual dysfunction are complex, the high proportion of sexual dysfunction cannot be attributed only to disease and medication. Psychosocial factors certainly also have a role. The high prevalence of domestic violence in South Africa as either the cause or consequence of sexual dysfunction cannot be ignored. Interpersonal conflict is often associated with low sexual desire and sexual dysfunction.[40] Socio-economic challenges such as homelessness, unemployment and even a lower educational level have been shown to be statistically associated with increased sexual dysfunction.[27,37,41] Although this research did not elicit employment data, the research setting is neither an affluent area nor are there many job opportunities. Nearly half of the participants had no schooling or only primary schooling, which can influence the level of understanding and help-seeking for sexual dysfunction.[42,43] Cultural values and expectations can also contribute to how the patients perceived and expressed their sexual functioning or challenges.[44,45]

A total of 77% of male participants lived with more than one symptoms of sexual dysfunction. Erectile dysfunction and orgasmic challenges were prominent in this study; the result of erectile dysfunction symptoms in this study was in line with a recent study in Gauteng province, South Africa, where 97% of the men attending a community health centre presented with erectile dysfunction.[25] As erectile dysfunction is considered a biomarker for coronary artery disease,[22] the failure to enquire about this raises questions about the identification and management of end organ damage of these patients in primary care clinics. Apart from medical issues, the psychological impact of not attending to the sexual functioning needs of the patient is immense as sexuality is often perceived as penis-driven and the loss of functioning thereof signals loss of manhood and its associated status.[18] Intimate relationships may even suffer as the partner may perceive it as a lack of interest because of infidelity.[17]

This study provided insights into how early in adulthood men and women experienced symptoms suggestive of sexual dysfunction. For some women in this study sexual dysfunction already presented in late 20s and it was present in some men younger than 25 years old. Therefore, doctors should be cautioned to screen regularly for such problems.[46] Unfortunately, the majority of studies on female sexual dysfunction usually include the older than 35 year group[46] so it is difficult to say that the findings in this study for early adulthood sexual dysfunction are an outlier. We do however know that problems arising from childbirth can contribute to sexual dysfunction.[47] As we did not elicit childbirth, it may be a reason other than diabetes or hypertension that younger women presented with sexual dysfunction. For both men and women, substance abuse must also be considered for sexual dysfunction symptoms.[48]

Patients in this study indicated that they trusted their doctors and did not consider sexual well-being as too sensitive a topic to discuss. It was not a matter of trust or sensitivity that prevented them from sharing their sexual challenges with doctors. With this big proportion of patients reporting symptoms in various degrees, the question was, if the doctors did not ask, why did the patients not simply tell them? Reviewing the literature suggests that sometimes patients stop asking for help because doctors avoid discussing sensitive matters.[6,12,49,50]

The patient cohort was selected for the theoretical prevalence of sexual dysfunction because of their diseases and the medication. Sexual dysfunction was assessed as part of the triangulation of data in the bigger qualitative study and therefore results are limited to the research setting. The strength of the study lies in the fact that it supplements research findings related to better understanding of sexual history taking during a consultation. For the first time we have recorded consultation findings with evidence of sexual dysfunction linked to those consultations and have demonstrated the disjuncture between levels of sexual dysfunction and extent of sexual history taking. It is observed that sexual functioning is complex and not only influenced by disease and medication but also psychological, trauma and social factors, which were not assessed. These data however give us a glimpse into the sexual challenges that patients in primary care present with, which are hardly ever discussed during a consultation.

From an ethical perspective, failing to screen for symptoms of sexual dysfunction not only prevented doctors from uncovering and thus exploring other pathologies, such as

arterial disease, substance abuse or depression, but it also deprived patients of help that could have changed the quality of their sexual health and well-being.[51] The South African standard treatment guidelines for both diabetes[52] and hypertension[53] and the Practical Approach to Care Kit (PACK)[54] clinical decision support tool do not explicitly recommend screening for sexual dysfunction. However, if primary care, and even more family medicine, aims to render comprehensive healthcare, it must surely include screening for sexual dysfunction. Failing to screen for sexual dysfunction is not only a failure of history taking, but it is also a failure to care for patients and the problems they are living with. Despite the fact that psychosocial management of health and illness or preventative care are often not operationalised in the definition of quality and standards,[55] and that doctors might feel they lack the knowledge and skills for the task, there remains a professional duty to provide care for the patient. The ideal would be if primary care doctors and family physicians are trained to initiate sexual history taking for sexual dysfunction. The role of the family physician in promoting the sexual health agenda in primary care must be explored in future research. At the very least, identification of these problems can secure a referral to an appropriate member of the healthcare team to address sexual dysfunction.[56] A referral to doctors with special interest in psychologist or clinical social worker who are trained in sexual health can address some causes and most consequences of sexual dysfunction to improve relationships. Sexual dysfunction screening is thus not only a learned skill; it involves a paradigm shift from conducting 'just another routine consultation', to focusing on offering comprehensive clinical care.

Patients living with sexual dysfunction present every day somewhere in a healthcare facility in South Africa only to go home to live in emotional and sexual humiliation and despair. Clinical reasoning around patients living with chronic disease should not exclude sexual well-being – it is not a luxury, but rather a health necessity.

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### Competing interests

The author(s) declare that they have no financial or personal relationship(s) that may have inappropriately influenced them in writing this article.

### Authors' contributions

D.P. conceived of the presented idea. D.P., I.D.C. and M.G.M. developed the theory and performed the computations. I.D.C. and M.G.M. verified the analytical methods. I.D.C. and M.G.M. supervised the findings of this work. All authors discussed the results and contributed to the final manuscript.

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### Data availability

The data that support the findings of this study are available from the corresponding author, D.P., upon reasonable request.

### Disclaimer

The views and opinions expressed in these articles are those of the authors and do not necessarily reflect the official policy or position of any affiliates agency of the authors.

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# CHAPTER 8

## ARTICLE 5: SEXUAL HISTORY TAKING: DOCTORS' CLINICAL DECISION MAKING IN PRIMARY CARE IN THE NORTH WEST PROVINCE, SOUTH AFRICA

As seen in Chapter 7, the proportion of patient living with SD was high and it was not explored during the consultations. The doctors claimed in this study that if it were indicated, they would screen for it. These patients lived with diabetes and hypertension, both illnesses associated with SD, and they had SD symptoms. The next article assessed if doctors included SD as a possible diagnosis in their clinical reasoning and if they considered it in decision making for management of the patient.

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# Sexual history taking: Doctors' clinical decision-making in primary care in the North West province, South Africa

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**Background:** Clinical reasoning is an important aspect of making a diagnosis for providing patient care. Sexual dysfunction can be as a result of cardiovascular or neurological complications of patients with chronic illness, and if a patient does not raise a sexual challenge, then the doctor should know that there is a possibility that one exists and enquire.

**Aim:** The aim of this research study was to assess doctors' clinical decision-making process with regards to the risk of sexual dysfunction and management of patients with chronic illness in primary care facilities of the North West province based on two hypothetical patient scenarios.

**Setting:** This research study was carried out in 10 primary care facilities in Dr Kenneth Kaunda health district, North West province, a rural health district.

**Methods:** This vignette study using two hypothetical patient scenarios formed part of a broader grounded theory study to determine whether sexual dysfunction as comorbidity formed part of the doctors' clinical reasoning and decision-making. After coding the answers, quantitative content analysis was performed. The questions and answers were then compared with standard answers of a reference group.

**Results:** One of the doctors (5%) considered sexual dysfunction, but failed to follow through without considering further exploration, investigations or management. For the scenario of a female patient with diabetes, the reference group considered cervical health questions ($p = 0.001$) and compliance questions ($p = 0.004$) as standard enquiries, which the doctors from the North West province failed to consider. For the scenario of a male patient with hypertension and an ex-smoker, the reference group differed significantly by expecting screening for mental health and vision (both $p = 0.001$), as well as for HIV ($p < 0.001$). The participating doctors did not meet the expectations of the reference group.

**Conclusion:** Good clinical reasoning and decision-making are not only based on knowledge, intuition and experience but also based on an awareness of human well-being as complex and multidimensional, to include sexual well-being.

**Keywords:** vignette; sexual dysfunction; clinical reasoning; decision-making; primary care; hypertension; diabetes.

## Background

Clinical decision-making based on the patient's medical history is an important aspect of medical care provision and requires attentive engagement on the part of the practitioner.[1] This is no less true when it comes to clinical reasoning in terms of sexual health, where taking a sexual history is arguably even more important because mostly there is very little that clinical examination or special investigations may add to the understanding of the problem. Various studies have found that doctors seldom take a sexual history and even less often screen for sexual dysfunction.[2,3,4,5,6] Research studies have also shown that patients do not necessarily know that their illness or medication can sometimes cause sexual challenges; however, they are usually keen to discuss their sexual challenges with doctors.[5,7,8]

Admittedly, improved patient help-seeking behaviour can ease the exploration of sexual dysfunction. However, being a disease expert, doctors would anticipate and create the opportunities to talk about sexual challenges.[7] The question is whether sexual dysfunction as a comorbidity

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features in the doctors' clinical reasoning and decision-making? Atkinson et al.[9] defined clinical reasoning as a thinking and decision-making process in professional practice, which is context dependent and guides practice actions. Case-specific knowledge, the skill to cognitively process the information, and reflective self-awareness are requirements for optimal clinical reasoning.[9] Some educators add pattern recognition and a dose of intuition to the cognitive skills a doctor needs.[10,11] Young et al.[12] organised clinical reasoning in terms of acquired knowledge; interconnected and flexible knowledge organisation; coordinated and contextualised cognitive processing; and most importantly, metacognitive processing. Metacognitive processing includes reflexivity to improve judgement and performance.[12] Dennick[11] postulated that to consider a possible diagnosis, hypothetico-deductive reasoning must include background knowledge and experience to assimilate the inductive phase and reduce hypothesis formation from the imagination. We know that availability bias where the frequency of a condition is overestimated, as well as being so vested in a diagnosis, results in doctors not considering an alternative diagnosis, thus contributing to diagnostic errors.[13] In this research study, the formation of a hypothesis of sexual dysfunction or considering sexual dysfunction as an alternative diagnosis based on knowledge and experience, or to include it as part of a hypothetical management plan, could suggest that sexual dysfunction was included in the cognitive processing of information and thus formed part of clinical reasoning and decision-making.

Vignette methodology has been used to assess cognitive processing in clinical reasoning and decision-making.[12] Jiwa et al.[14] used vignettes to compare clinical management decisions between general practitioners and diabetologists in Australia. In another study, vignette methodology was used to develop a successful tool to train health care workers in primary care to talk more frequently about sex in a consultation.[15] Results from a vignette-based study in the United States and the United Kingdom revealed that patients' age, race and gender, as well as doctors' gender and experience, influenced clinical decision-making for diabetes.[16] A vignette study on probable risks for sexually transmitted infections (STIs) and HIV suggested that stigmatisation influenced the risk perception of doctors.[17] Although the focus of these studies was not sexual dysfunction, the factors influencing the reasoning and judgement were highlighted, and therefore, could be used to understand the reasoning that influences the risk assessment and management of sexual dysfunction presenting in chronic illnesses. Doctor-patient knowledge disparities with regards to the expression of sexuality in chronic disease or old age, personal perceptions and expectations based on previous encounters seem to influence doctor's judgement when it comes to sexual health.[18,19,20,21,22]

The use of a vignette is a valid strategy to assess clinical judgement and decision-making around a diagnostic problem. Moreover, a vignette has good discriminative values, a good criterion and content validity, as well as consistently measure physician practice.[23,24] If the vignette is well-designed with specific questions, the outcome in terms of judgement and decision-making is highly generalisable to everyday practice and decisions.[23] It also measures practice more precisely than chart abstractions and is closer to assessments with standardised patients.[24] The researcher decided to present doctors with two hypothetical vignette-based patient scenarios in order to assess whether they would consider the risk of sexual dysfunction and what role, if any, it would play in their management decision-making.

## Aim and objectives

The aim of this research study was to assess doctors' clinical decision-making process with regards to the risk of sexual dysfunction and management of patients with chronic illness in primary care in the North West province based on two hypothetical patient scenarios by assessing the doctors' diagnostic perception and management of two hypothetical case studies; to compare the scenario outcomes with a reference group outcome of the same scenarios, and to describe the clinical reasoning and decision-making process.

### Study design

This vignette study formed part of a broader grounded theory study,[25] focussing on taking of history of sexual dysfunction in routine consultations. Part 1 of the study recorded and analysed 151 routine consultations with patients at risk of sexual dysfunction, to observe if and how sexual history taking presented in consultations and was reported in other articles. The second part of the study sought to determine whether the possibility of sexual dysfunction as a comorbidity formed part of the doctors' clinical reasoning and decision-making process using a vignette method. It was also used to gauge the trustworthiness of the observation outcomes of the broader study.

### Setting

Dr Kenneth Kaunda Health District in the North West province was selected as a research site. At the time of the study, about 28 doctors were supporting nurse practitioners in 10 of the 36 primary care facilities located in this rural health district.

### Sampling strategy

A stepwise sampling approach was employed, involving recruitment of the clinics first, and then the doctors. The recruitment criteria included the clinics with a doctor to be consulting there at least once per week. Ten clinics along with 28 doctors working in these clinics across the health district were included. About 19 doctors consented to participate in the second part of the research study, which involved responding to questions on hypothetical patient scenarios.

## Vignette scenarios

The scenarios for the vignettes were created based on real data of two patients, in which the doctors had to consider the differential diagnosis, complications and management.

Scenario 1:

- A 48-year-old female patient with type 2 diabetes mellitus (DM) presents in your consulting room with complaints of vaginal burning and itchiness. She has no suprapubic pain and confirms a slight discharge. She has a history of non-infectious vulvovaginitis. Vital signs, random blood glucose level and haemoglobin A1c (HbA1c) are within the normal range.

Questions on Scenario 1 were as follows:

- What are the possible conditions that could be affecting this patient?
- What would you like to ask the patient to help her?
- How will you manage this patient based on the given information?

Scenario 2:

- A 45-year-old male patient with hypertension for the past 10 years presents for his annual check-up. He is at present on Atenolol (Tenormin) 100 mg daily and Enalapril 10 mg b.d. (twice a day) and hydrochlorothiazide (HCTZ) 12.5 mg. He is happy to inform you that he stopped smoking three months ago (he smoked 18 cigarettes per day since age 17). He complains of fatigue.

Questions on Scenario 2 were as follows:

- What are the possible complications will you explore?
- How will you manage this patient based on the given information?

## Pilot study

The two scenarios were piloted with 15 family physicians and family medicine registrars in the Ekurhuleni health district (a district in a different province from the study district), and no changes were suggested.

## Data collection

During data collection, both the researcher and the trained research assistant approached the doctors involved in the video recordings of consultations and briefed them on the second part of the study, namely, the hypothetical scenarios. The doctors who participated were asked to complete a demographic questionnaire and answer the questions on the two vignettes. Doctors completed this session in the presence of the researcher and could take as much time as needed to complete their responses before the answered questionnaires were collected. The doctors were blinded to the focus on sexual dysfunction and sexual history taking.

## Data analysis

The data from the demographic questionnaires were captured in Microsoft Excel. The responses to the question(s) on the vignettes were imported into MaxQDA 2018 software and analysed. Raw data were coded using an open coding approach to determine categories emanating from data after which quantitative content analysis was carried out (Figure 1). Coding was reviewed by a panel of a public health specialist, a general practitioner and the two study supervisors. When the frequency of responses was known, a reference group consisting of three medical doctors (a trainer of final-year medical students and two working as generalists in the public sector), as well as one of the family physicians involved with training of undergraduate students, registrars and interns, were asked to standardise the answers (Figure 1). Their work experience varied between 3 years and 35 years after graduation. They were given the questions and answers the primary care doctors in North West province gave to the scenario questions and then requested to indicate how many junior doctors or interns out of a possible 10 would they expect to give the answers they considered a standard answer. Consensus was sought to a mean number of correct responses amongst the reference group, where possible, but if this was not possible, the mean of the suggested number of expected correct responses was calculated. Where the reference group agreed with the doctors in the North West province that it was an ideal answer, but differed from a clinical perspective on the feasibility, it was also documented. The frequency of qualitative answers to the questions in the vignettes from the doctors in the North West province, and those of the reference group were expressed as percentages. The level of agreement or differences between the doctor participants and the reference group was assessed using Fischer's exact test at a 95% confidence level.

## Ethical considerations

The study was approved by the Human Research Ethics Committee (Medical) of the University of the Witwatersrand,

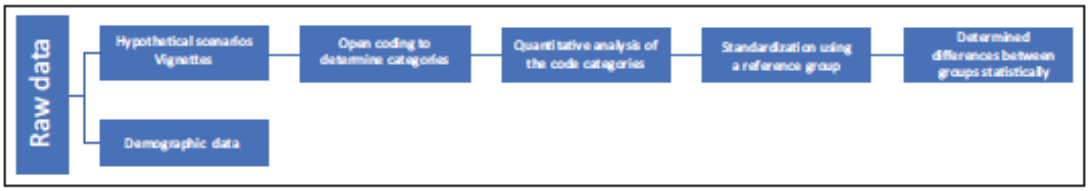



**FIGURE 1:** Data analysis for this study.

Johannesburg (M160557). The Directorate Research, Monitoring & Evaluation of the Department of Health, North West province, South Africa, granted permission for proceeding with the research. The district and clinic managers also granted permission to carry out the research in their facilities. Clinics were not identified and only referred to as site numbers to ensure confidentiality of both setting and healthcare workers. Confidentiality was maintained as the questionnaires were numbered, and doctors completed them anonymously.

## Results

### Participant demographics

Six female and 13 male doctors participated in the research study, with the female doctors being much younger than their male counterparts (Table 1). The sample included two interns, three community service doctors and 14 medical officers. The male doctors were mostly career public medical officers with more experience (median for men 192 months vs. 36 months for women).

TABLE 1: Characteristics of doctors.

| Characteristic | Male (*n* = 13) | Female (*n* = 6) |
|---|---|---|
| **Age** | | |
| Range (years) | 25–67 | 25–34 |
| Mean (years) | 36 | 29 |
| Median (years) | 34 | 29 |
| **Marital status** | | |
| Married | | |
| *n* | 6 | 4 |
| % | 46 | 67 |
| Single | | |
| *n* | 7 | 2 |
| % | 54 | 33 |
| **Level of education** | | |
| MBChB only | | |
| *n* | 3 | - |
| % | 23 | - |
| MBChB and additional diplomas | | |
| *n* | 7 | 3 |
| % | 54 | 50 |
| MBChB and other degrees | | |
| *n* | 3 | 3 |
| % | 23 | 50 |
| **Home language** | | |
| Afrikaans | | |
| *n* | 4 | 3 |
| % | 31 | 50 |
| English | | |
| *n* | 1 | 1 |
| % | 8 | 17 |
| French | | |
| *n* | 4 | - |
| % | 31 | - |
| Mandarin | | |
| *n* | 1 | - |
| % | 8 | - |
| Sesotho | | |
| *n* | 1 | - |
| % | 8 | - |
| Setswana | | |
| *n* | 1 | 2 |
| % | 8 | 33 |
| Spanish | | |
| *n* | 1 | - |
| % | 8 | - |
| **Work experience** | | |
| Range (years) | 2–43 | 2–7 |
| Median (years) | 16 | 3 |
| Mean (years) | 12 | 4 |

### Vignette results: Clinical reasoning for the two scenarios

#### Scenario 1

Scenario 1 was about a 48-year-old female patient with type II DM who presented with complaints of vaginal burning and itchiness. The results revealed that doctors were leaning towards a *Candida* infection, STI and vaginal atrophy as possible conditions affecting the hypothetical patient (Table 2). The reference group agreed on these as possible options; however, they considered menopause as the standard answer for this scenario. There was a statistical difference between the doctors' responses and the responses of the reference group on the diagnosis of menopause ($p = 0.025$) (see Table 2).

The questions the doctors would have preferred to ask the hypothetical patient focussed mainly on the attributes of the symptoms and past medical history. Two doctors (11%) wrote questions that could have elicited sexual dysfunction, namely:

> 'How about sexual relationship with partner?' (Dr 03, 35-year-old male doctor)

> 'Pain and tenderness during intercourse?' (Dr 25, 26-year-old female doctor)

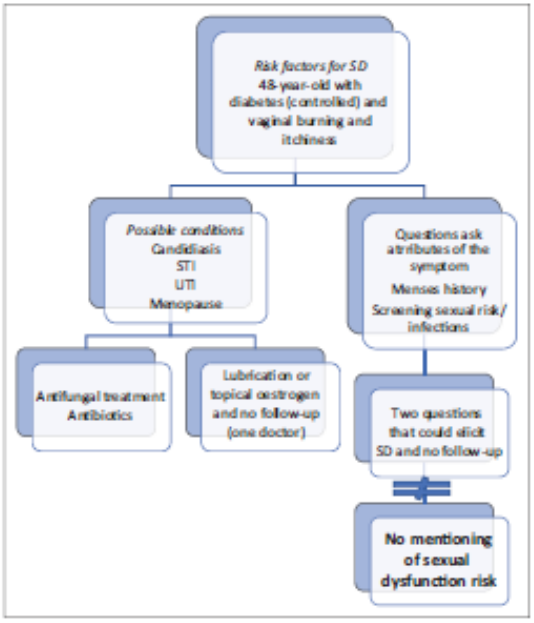
Sexual dysfunction specifically was never mentioned in the responses to the scenario, and there was no follow through on the abovementioned questions that could have led to eliciting it (Figure 2). Despite the reference group expecting that at least 8% of junior doctors would have enquired about sexual dysfunction, there was no statistically significant difference between the two groups. The reference group considered checking cervical health, including last cervical smear ($p = 0.001$), and checking compliance with medication ($p = 0.004$) as standard and appropriate enquiries that the doctors in the North West province failed to consider. These doctors, however, exceeded the reference group's set standard on vaginal hygiene questions ($p = 0.009$).

Contrary to the expectations of the reference group, the participating doctors considered the following management options: offering cervical smear ($p < 0.001$), HIV test ($p < 0.001$), urine dipstick ($p < 0.001$), teaching of wiping techniques ($p = 0.005$) and prescribing antifungal treatment ($p = 0.028$). The reference group considered lubricants or topical oestrogen as a standard answer; however, they did not consider it as a reasonable answer for the management because of the lack of availability of these in the public health sector.

**TABLE 2:** Hypothetical scenario 1: a 48-year-old female patient with diabetes.

| Question | Responses | Doctor responses (%) | Responses expected by reference group (%) | *P* |
|---|---|---|---|---|
| What are the possible conditions that could be affecting this patient? | *Candida* infection | 58 | 83 | 0.058 |
| | STI or VDS | 47 | 40 | 0.779 |
| | Vaginal atrophy | 32 | 33 | 1.000 |
| | UTI | 26 | 10 | 0.131 |
| | Menopause | 5 | 24 | 0.025 |
| What would you like to ask her to help her? | Reproductive health questions | 42 | 30 | 0.39 |
| | Cervical health questions, including last cervical smear | 11 | 60 | 0.001 |
| | Sexual dysfunction | 0 | 8 | 0.544 |
| | Compliance (adherence to medication) | 11 | 50 | 0.004 |
| | Vaginal hygiene | 21 | 0 | 0.009 |
| How will you manage this patient based on the given information? | Offer cervical smear | 16 | 78 | < 0.001 |
| | Do urine dipstick | 7 | 53 | < 0.001 |
| | Teach wiping techniques | 7 | 43 | 0.005 |
| | Offer HIV test or VCT | 11 | 90 | < 0.001 |
| | Prescribe anti-fungal treatment | 63 | 90 | 0.028 |
| | Suggest lubricants and/or topical oestrogen | 5 | 0 | 0.322 |

STI, sexually transmitted infections; VDS, venereal disease; UTI, urinary tract infection; VCT, voluntary testing and counseling.




STI, sexually transmitted infections; SD, sexual dysfunction; UTI, urinary tract infection.

**FIGURE 2:** Clinical reasoning flow diagram of doctors for Scenario 1.

Figure 2 reflects the flow of responses to Scenario 1, showing that the clinical reasoning did not include sexual dysfunction for most of the doctors.

### Scenario 2

Scenario 2 was about a 45-year-old male patient with hypertension, who presented for his annual check-up and complained about fatigue. He had stopped smoking 3 months ago. As shown in Table 3, the doctors prioritised cardiac failure as a possible complication and focus of management (27% and 18% of the responses, respectively), and the reference group considered it as a standard answer.

The reference group, however, expected the participating doctors to mention psychosocial and respiratory complications, which they failed to do. The reference group differed significantly by expecting the participating doctors to screen for mental health and vision (both $p = 0.001$), as well as for HIV ($p < 0.001$). The participating doctors wanted to discuss smoking cessation with the hypothetical patient, and the reference group considered it as inappropriate ($p < 0.001$).

One of the male doctors (a 35-year-old) mentioned 'sex life' as a possible complication; however, it was not followed through in management (Figure 3). As summarised in Figure 3, the flowchart of clinical reasoning on this hypothetical scenario has been prepared; sexual dysfunction specifically was not considered.

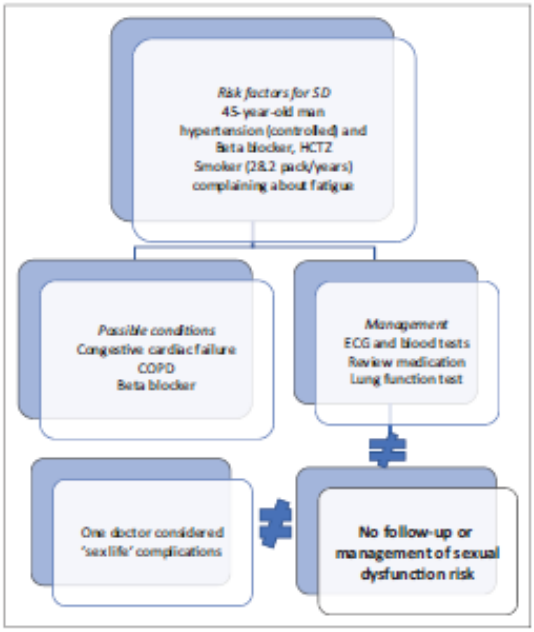
## Discussion

The researcher used questions on the diagnosis and management of hypothetical patient scenarios to assess doctors' clinical reasoning and decision-making regarding the risk of sexual dysfunction in patients with chronic illness. Despite 14 out of 19 (74%) primary care doctors in this sample being career and senior medical officers, their overall clinical reasoning assessed with hypothetical patient scenarios was below the standard that the reference group expected from an intern or junior doctor. Although the reference group agreed that some of the responses were clinically good, they were unpractical management options, such as ECGs, lung function tests and lubricants not readily available in the primary care clinics. As the answers to the scenarios did not reflect that the doctors considered referring the patients for such a service, their answers were interpreted to indicate what they wanted to do within the context they worked at that time, namely, a primary healthcare clinic that could not provide many of the investigated or treatment modalities listed. It was also clear that the doctors did not comply with guidelines on the

**TABLE 3:** Scenario 2: A 45-year-old male patient with hypertension and smoking history presenting with fatigue.

| Question | Responses | Doctor responses (%) | Responses expected by reference group (%) | *P* |
|---|---|---|---|---|
| What are the possible complications will you explore? | CCF | 58 | 51 | 0.591 |
| | Bradycardia | 5 | 15 | 0.411 |
| | Medication side effects | 21 | 18 | 0.734 |
| | Psychosocial complications | 11 | 55 | 0.002 |
| | Renal complications | 53 | 50 | 1.000 |
| | Respiratory complications | 42 | 68 | 0.090 |
| | Sex life complications | 5 | 3 | 0.544 |
| How will you manage this patient based on the given information? | ECG | 63 | 38 | 0.094 |
| | Blood tests | 42 | 58 | 0.034 |
| | Smoking cessation | 53 | 0 | < 0.001 |
| | Review medication | 26 | 25 | 1.000 |
| | Mental health | 16 | 63 | 0.001 |
| | HIV test | 11 | 85 | < 0.001 |
| | Visual screening | 16 | 78 | < 0.001 |
| | Compliance or adherence | 5 | 50 | 0.001 |
| | Lifestyle | 16 | 35 | 0.218 |
| | Further history | 11 | 53 | 0.002 |
| | Refer | 5 | 0 | 0.322 |
| | Lung function test | 26 | 5 | 0.030 |
| | Radiology | 11 | 0 | 0.100 |

CCF, congestive heart failure; ECG, electrocardiogram.




SD, sexual dysfunction; HCTZ, hydrochlorothiazide; COPD, chronic obstructive pulmonary disease; ECG, electrocardiogram.

**FIGURE 3:** Clinical reasoning flow diagram, Scenario 2.

offering of HIV tests,[26] cervical smear,[27] and mental health screening[28] for patients with chronic disease. Both the hypothetical patients were at risk of sexual dysfunction, but only one doctor considered exploring sexual functioning (the doctor did not specify the type of dysfunction, calling it 'sex life') in response to these scenarios, and none included it as a management option. Although sexual functioning is important for the patient's well-being, it did not seem to be part of the overall clinical reasoning of the primary care doctors in North West province. It is thus unlikely that they would have explored it in real patients. According to Kingsberg,[29] sexual health seldom has a high priority in medical education. The neglect of sexual functioning is likely starting in undergraduate training where students memorise and use symptom lists, algorithms and guidelines, in which reproductive health and sexual risk behaviour feature, but not necessarily sexual functioning. Doctors are trained with a focus on disease and not on health; they are taught to look for pathology rather than focusing on and supporting well-being.

If we consider clinical reasoning as the fault line for not thinking of sexual dysfunction in this study, the question is what doctors already know, as knowledge is the starting point for clinical reasoning. They knew that both hypertension and diabetes have target organ complications - sometimes also referred to as the 'vascular tree' that accelerates the decrease of kidney function, retinopathy and cerebral functioning or disease. It would be the responsibility of a doctor to set therapeutic goals and manage cardiovascular risks aggressively, certainly in the initial stages; however, long-term management of the patients must be based on a more holistic understanding.[30] Exploring decision-making or judgement analysis in terms of diabetes and hypertension management, it was clear that decision-making was most of the time based on the management of control targets and/or the risk-benefit ratios.[14,21,22,23,24,25,26,27] Based on a knowledge base, they could thus organise their knowledge to consider examples of typical complications of diseases that the symptoms represented.

In Scenario 1, lubrication was considered; however, the fact that sexual desire and orgasmic dysfunction can coexist was not. The patient in Scenario 2 did not only have hypertension

and was under medication with a risk of erectile dysfunction; however, the previous history of smoking had also increased the risk of sexual dysfunction.[28] It thus seems that the doctors, in this study, may lack the knowledge on sexual dysfunction, which is in line with other research findings.[29] However, this also raised a red flag in terms of cognitive processing where clinical information must be used to generate a test hypothesis.[12] It seems that the doctors answered the questions rapidly and intuitively, mainly concentrating on the initial diagnosis and presenting complaint. This is also known as automated reasoning and is common in decision-making.[40]

If there was deliberate or deep and analytical thinking[41] about the symptoms the hypothetical patients presented with, they might have considered other risks, such as the microvascular complications that also occur in the genitalia, for example, erectile failure in men, which is common knowledge but still not optimally addressed in primary care,[42] and, perhaps less known, clitoral vascular resistance in women with insulin resistance.[43] They considered cardiovascular disease; however, did not consider that erectile dysfunction is also an early biomarker of cardiovascular disease, and thus, it is a good clinical practice to screen for it.[44] Chronic diseases are known for comorbidities. Therefore, from a clinical and pharmacological point of view, there is an expectation that if the doctor knows that a patient lives with certain diseases and uses certain medications, he or she would screen for sexual dysfunction.[45,46] Medications, such as antihypertensives, diuretics, antidepressants, antipsychotics, mood stabilisers and others, are known for side effects of sexual dysfunction.[47]

Lifestyle issues, such as past and current smoking habits, excessive use of caffeine use and lack of physical activity, also increase the chances of sexual dysfunction and need to be considered in the management of patients with chronic disease.[28] This type of analytical reasoning was not evident in the answers generated in this study. Mamede et al.[48] found that analytical reasoning and medical experience were proportionately and inversely associated with each other, which could explain the lack of analytical thinking in this sample of male doctors with a median experience of 16 years. There is, however, no explanation for the less experienced doctors not to exclude analytical thinking.

If there was a deliberate or deep and analytical thinking[41] about the symptoms presented by the hypothetical patients, they would have considered other risks, such as microvascular complications, to also occur in the genitalia, for example, erectile failure in men, which is common knowledge but still not optimally addressed in primary care,[42] and, perhaps less known, clitoral vascular resistance in women with insulin resistance.[43] They considered cardiovascular disease; however, erectile dysfunction was also not an early biomarker of cardiovascular disease, and thus, good clinical practice to screen for it.[44]

Patients of all ages experience sexual challenges, and patients with diabetes and hypertension experience an even more significant burden of disease.[49,50,51,52,53,54,55] As doctors are expected to serve the best overall benefit or the best interest of the patient, many researchers have concluded that screening for sexual dysfunction must be a clinical priority when dealing with patients living with chronic disease.[2,56] Best interest should also imply giving attention to holistic well-being, although it has been shown that patients' preferences and subjective illness experiences are often not a consideration in clinical judgement or decision-making.[19,57,58,59] It seems sexual history taking in practice is not core to the decision-making process in the management of patients with chronic disease despite being a theoretical and health priority.

It was evident that doctors focussed on an initial diagnosis and presenting complaint. Gay et al.[60] emphasised that managing the initial diagnosis is not good enough as clinical reasoning extends beyond it in the management of patients. The results of this study also did not suggest any form of reflexivity, also known as meta-reasoning[48] to check errors in their reasoning or to reconsider the diagnosis or management. The dual-process theory does not negate the importance of intuition and pattern recognition acquired through experience in clinical reasoning and decision-making but also emphasises the meta-cognitive control to reconsider and reduce errors applying analytical reasoning.[41] The results of this study lacked the evidence of metacognitive and analytical reasoning.

Where is the gap? Do doctors lack only the knowledge of sexual health, more specifically knowledge of sexual dysfunction? Or is it a deeper problem at a cognitive processing and an awareness level? Both can be addressed by training doctors during undergraduate years. Various studies have shown how training doctors has improved the knowledge gap in and practice of sexual history taking.[61,62,63,64,65,66,67] Most importantly, doctors must be taught to enquire about their own beliefs and assumptions, which requires a humble openness to generate alternative explanations for what seems to be obvious.[48]

## Conclusion

Good clinical reasoning and decision-making are based on not only knowledge, intuition and experience but also an awareness of human well-being as complex and multidimensional to include sexual well-being. Therefore, the main focus should be on clinical reasoning whilst training of doctors during undergraduate years, a sexual health curriculum that cuts across specialist disciplines and development of skills to communicate matters of sexual functioning.

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## Competing interests

The authors declare that they have no financial or personal relationships that may have inappropriately influenced them in writing this article.

## Authors' contributions

D.P. conceived the presented idea. D.P., I.D.C. and M.G.M. developed the theory and performed the computations. I.D.C. and M.GM. verified the analytical methods. I.D.C. and M.G.M. supervised the findings of this work. All authors discussed the results and contributed to the final manuscript.

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## Data availability

The data that support the findings of this study are available from the corresponding author, D.P., upon reasonable request.

## Disclaimer

The views and opinions expressed in this research article are those of the authors and do not necessarily reflect the official policy or position of any affiliated agency of the authors.

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# CHAPTER 9

## 9. ARTICLE 6: 'WE ARE NOT TRULY FRIENDLY FACES': PRIMARY HEALTH CARE DOCTORS' REFLECTIONS ON SEXUAL HISTORY TAKING IN NORTH WEST PROVINCE.

Chapter 8 indicated that the doctors failed to screen for SD, displayed poor SHT and proved in the vignettes that they also did not consider SD as a diagnosis in hypothetical patient scenarios. The theme through all these articles suggested that doctors did not consider SD at all during routine consultations.

This article reports the findings of the debriefing interviews with the doctors after the consultations were recorded at the end of the working day. Doctors were then informed about the specific focus of the research, namely SHT, and had the opportunity to share their thoughts and opinions about the consultation dynamics.

This article was prepared for and submitted to ***Sexual Medicine, and it is under review*****.** The document and references were formatted according to the journal's author guidelines.

**‘We are not truly friendly faces’: Primary health care doctors’ reflections on sexual history taking in North West province.**

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Abstract

***Background***

Doctors experience barriers in consultations that cause them to omit history taking for sexual dysfunction.

***Aim***

The aim was to identify barriers to and facilitators of sexual history taking that primary care doctors experience during consultations involving patients with chronic illnesses.

***Methods***

***Outcomes***

Sexual history was not taken and patients living with sexual dysfunction were missed. If patients understand how disease and medication contribute to their sexual wellbeing, this may change their perceptions of the illness and adherence patterns.

***Results***

This qualitative study used individual interviews with 20 primary care doctors working in the rural North West province, South Africa. Eight doctors declined participation. At the end of the working day following the recording of their consultations with patients at risk of sexual dysfunction, the doctors were interviewed on the barriers and facilitators sexual history taking they experienced. Thematic analysis was done.

***Clinical Implications***

Doctors did not address sexual health during routine consultations as they did think about it or perceive it a priority.

***Strengths & Limitations***

The study provided insight in the barriers of sexual history taking during a routine consultation and is relevant to primary health care in a rural setting.

***Conclusion***

Doctors focused on control targets and immediate clinical risk reduction when consulting and need a socio-cognitive paradigm shift in terms of knowledge and awareness of sexual dysfunction in patients with chronic illness.

South Africa has a history of conservative values where sexuality is often perceived as shameful and heteronormative.[1] With the first announcement on AIDS in 1982, sexuality – especially sexual risk behaviour and HIV, became part of public discussions. In South Africa, various media and health promotion campaigns were launched after 1991 to improve awareness and prevention of disease.[2] This not only created awareness in doctors and patients around the illness, but also the expectation that health care workers and patients would talk comfortably about sexual health. Sexual health forms the core of the burden of disease in South Africa such as women's and men's sexual health, sexually transmitted infections, gender based, sexual exploitation due to poverty and hunger, violence and rape[3,4] The expectation was that the presumed comfort talking about HIV, would also open the door for raising concerns about sexual functioning.[5] Lewis and Bor[6] postulated that patients often use undifferentiated complaints, chronic disease and/or a

request for medication as a so-called ‘ticket of admission’ to discuss sexual functioning. A mere request for a repeat of a script for medication in primary care could trigger a discussion on sexual challenges. However, research globally suggested that sexual history taking was often neglected in the scope of a primary care consultation.[7–9] The question was what were doctors’ views on taking a sexual history and factors they experience during routine consultations in primary care that could promote or limit sexual history taking?

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From research done globally, it is known that health care workers attribute the omission of taking a sexual history to feelings of embarrassment and discomfort. [9,10] This discomfort often originates from the age and gender discordance between the professionals and patients.[11–13] Other barriers to sexual history taking research indicated are time constraints, knowledge of sexual dysfunction or how to initiate a discussion about sexual health.[10,11,13–15] There is also evidence that undergraduate and post graduate training fail to empower doctors with knowledge and skills to explore and manage sexual dysfunction confidently.[16–20] Cultural and religious factors, either due to the conservative climate it create, or perceived differences and expectations between patient and doctor, can inhibit free discussion of sexual health.[21–24] Some studies suggested that the doctor’s personality could prevent sexual history taking.[25–27] Lack of awareness of or underestimating sexual health challenges, failing to pick up cues patients give or lack of patient centredness contributed to the omission of sexual history taking.[28–33] A lack of management options was identified by some researchers as a barrier to sexual history taking.[12,34] The demarcation of sexual medicine can also either inhibit or promote discussion of sexual challenges. In a study conducted in Korea, Taiwan and Singapore 648/810 (80%) of the doctors spontaneously associated men’s sexual health as a domain of urology.[10] The same study found that doctors often associated men’s sexual health in Asia mainly with diabetes (65%) and hypertension (61%) and therefor did not screen routinely for sexual dysfunction.[10]A qualitative study with middle aged women in Sweden suggested that women thought that sexual problems fall rather in the domain of a gynaecologist and would thus not raise it with their general practitioner.[27] In Africa, women often do not even know that sexual dysfunction is a medical condition, whilst others seek help in traditional medicine that may even be harmful.[35,36]

Till now, South Africa had no research on sexual history taking and knowledge what barriers doctors experienced taking a sexual history. Few qualitative studies have been done. Most of the research done globally on barriers of sexual history taking are questionnaires at conferences or electronic surveys These studies rely on recall of what the doctors thought they did, which may differ from actual practice. The current study sought to limit this type of recall bias to observe practice and then discuss barriers.

This article represents part of a broader study on observed sexual history taking using recorded primary care consultations with patients at risk of sexual dysfunction due to diabetes and hypertension. Following recorded consultations, the doctors had an opportunity to express their opinions and perceptions about factors that either promote or prevent sexual history taking during a routine consultation. The aim of the study was to identify barriers to and facilitators of sexual history taking that primary care doctors experienced during the recorded consultations involving patients with chronic illnesses.

Research methods and design:

This was a grounded theory study to describe sexual history taking in primary care chronic consultations with patients at risk of sexual dysfunction.[37] The individual interviews method was selected as it provides a broad basis of information; uncover subtleties in attitudes and allow personal opinions from participants which may not be raised when in a group.[38,39] The researcher did individual interviews with the doctors to debrief them at the end of recorded consultations and to explore barriers to and facilitators of sexual history taking they experienced during these recorded consultations.

Setting

This research was carried out in the rural Dr Kenneth Kaunda Health District in the North West Province. In this district, just over 700 000 inhabitants are served by one regional and three district hospitals, as well as nine community health centres and 27 clinics.[40] Twenty-eight doctors worked in primary care at the time of the data collection and consulted up to 25 patients per day. The doctors in primary care consist out of Family Physicians, registrars in Family Medicine and a few career senior medical officers, and the interns, community service doctors. The composition of these doctors are consistent

through the provinces. These doctors do not report to the university and findings of the research were reported in the form of articles. There was no conflict of interest or power imbalance.

Study population and sampling

One-hundred-and-fifty-one consecutive consultations with patients theoretically at risk of sexual dysfunction due to diabetes and hypertension (Figure 1) formed the basis of this research. All the doctors working in primary care were recruited for this study. Family Physicians were excluded as they know the researcher and the researcher-participant relationship as well as the nature of the research could be compromised if they were not excluded. Twenty-one doctors working consented to participate in the study. One doctor was later excluded from the interviews due to illness.

Data collection

Written consent was obtained from the doctors for a face-to-face interview after the recording of the routine consultation; initial consent blinded the focus on sexual history taking. Solo doctors were interviewed at the end of the working day following the recording of the consultations. At the group practice, the interviews were only conducted after the completion of the recordings which took 12 working days, to avoid them speaking to each other. Interviews were then scheduled at the convenience of the doctor either during lunch breaks or the end of the working day.

An interview guide gave the same opening statement for all the interviews. In the opening statement, the researcher gave them an overview of the prevalence of sexual dysfunction in patients with diabetes and hypertension as well as research findings on patients' wishes to discuss sexual dysfunction with their doctors. The focus of the research namely, sexual history taking for sexual dysfunction was unblinded at that point. They were then asked to share their experiences during the recording of the consultations. They were offered the chance to view their recordings should they want to. The researcher asked probing questions regarding barriers and facilitators of sexual history taking, as well as training they had regarding it. A short summary of the interview at the end of the session, gave the doctors the opportunity to clarify the content of the discussion. Field notes were made during the entire study.

## Data Analysis

Descriptive statistics were used to present demographic characteristics. A trained research assistant and a transcriber both transcribed the interviews, to improve accuracy because poor sound quality. The researcher verified the transcriptions, after which they were analysed using MaxQDA 2018[41] qualitative software. The researcher did the coding in three phases with continuous re-assessment of the meaning of the data.[42] Initial in vivo line-by-line coding was done using the doctors' words to develop categories of the data. Focussed coding followed to identify relationships between categories, after which theoretical themes emerged. The research team reviewed the coding categories (member check) and discussed data saturation, and any differences in coding were discussed until consensus was reached and the final themes were generated. Excerpts from participants formed the core of the data. This research contributed to the development of theoretical direction for a theory on sexual history taking.

## Ethical considerations

The ethical clearance for the study was provided by the Human Research Ethics Committee (Medical) of the University of Witwatersrand (M160557), and the Directorate: Policy, Planning, Research, Monitoring and Evaluation of the Department of Health, North West province, South Africa. The Facility managers also granted permission to conduct the study. The research focus was blinded for participants, but they had the option to withdraw after it was unblinded. Due to the sensitive nature of the research and the small number of doctors, consideration was given to confidentiality and anonymity.[43] No doctor or setting could be identified by name as a numerical system was used. Doctors often rotate through these settings, thus were specific timelines and dates were not reported.

## Results

### Participant's demographics

Fourteen male and six female doctors participated in the study. The age range for men was 25-67 (mean 41) years and for women 28-34 (mean 29) years. The mean work experience for women was 4 years compared to 13 years for men. There were variations in terms of first language speakers: Six (30%) spoke Afrikaans, six (30%) spoke French,

three (15%) Setswana, two English (10%), and one each Sesotho, Spanish, and Mandarin. Patient-doctor consultations are mainly in English. Five of the women (83%) confirmed that they were always comfortable to talk about sexual dysfunction versus 11 of the men (79%).

Summary of themes and sub-themes

Three themes represented barriers to sexual history taking, namely personal limitations, consultation process, and socio-cultural barriers (Table 1). The patient doctor relationship was mentioned as a facilitator of sexual history taking.

*Table 2. Summary of themes and sub-themes*

| Themes | Sub-themes |
|---|---|
| **Personal and health system limitations as a barrier to history taking for sexual dysfunction.** | **Forgotten subject.**<br>Doctors do not even think of sexual dysfunction.<br>(17 responses) |
| | **Insufficient training**<br>Insufficient training, knowledge and/or skill to deal with sexual dysfunction screening or management.<br>(12 responses) |
| | **Lack of resources**<br>The prescribed medication lists that do not have medicine for sexual dysfunction.<br>(9 responses) |
| **Presuppositions and assumptions as a barrier to history taking for sexual dysfunction.** | **Competing clinical priorities**<br>Doctors' understanding of the priority tasks linked to addressing the clinical needs of their patients.<br>(12 responses) |
| | **Perception of patient responsibility**<br>Doctor expected the patient to take responsibility for the discourse on sexual functioning.<br>(15 responses) |
| | **Positive focus**<br>The doctors' attempts to focus on positive aspects of the illness and management.<br>(3 responses) |
| **Socio-cultural differences as a barrier to history taking for sexual dysfunction.** | **Doctor-patient characteristic differences**<br>Personal characteristics that differ between patients and doctors.<br>(4 responses) |
| | **Taboo topic**<br>Value system prevents doctor talking about sexual matters.<br>(2 responses) |
| **Patient- doctor Relationship as a facilitator of history taking for sexual dysfunction.** | **Rapport building**<br>The ability to connect with the patient.<br>(6 responses) |
| | **Cultural sensitivity**<br>Cultural backgrounds differ and influence patients on the way they narrate their symptoms.<br>(2 responses) |

Theme 1: Personal and health system limitations as a barrier to sexual history taking for sexual dysfunction.

The doctors had consensus on the personal limitations theme. They expressed their perspectives that sexual dysfunction was a forgotten subject, and that they had insufficient training for the task.

Sub-theme 1.1 - Forgotten subject as a personal limitation:

Doctors admitted that they do not even think of sexual dysfunction.

> ‘ I think we forget about it. It’s not good. neh? It’s not good. [I] do not know why we don’t ask the patients about it.’ (Dr 13, 27-year-old man)

> ‘ No ….we do not do it [chuckles] I do not even think of it [sexual history taking]…I regularly ask about HIV and STI, but not about sexual dysfunction.’ (Dr 05, 46-year-old man)

> ‘ So they [patients] don’t really over share and with the doctors I don’t…you’re not really trained to go ask a sexual history every time, so it’s usually last and forgotten.’ (Dr 09, 31-year-old woman)

Sub-theme 1.2 – Insufficient training as a personal limitation:

The doctors believed they had insufficient training, knowledge and/or skills to deal with sexual dysfunction screening or management.

> ‘ Yes. Because in my book [textbook] it’s a small paragraph. I went to read it out because a patient asked me when I was in the peripheral clinics, and then I told him I’d help him, but what I knew… it’s very limited.’ (Dr 08, 34-year-old woman).

> ‘ I know nothing of sexual dysfunction…perhaps a little more about erectile dysfunction.’ (Dr 11, 26-year-old woman).

> ‘ If it’s an erectile dysfunction, then that I have some idea but to be honest, anything other than that, not really…not really. To be honest, I haven’t had any training and that… like I would maybe try and provide support from my knowledge as like, you know, human being to human being, but on a medical level …We were taught it, ja…more for sexually…infectious diseases’ (Dr 01, 37-year-old man).

‘ We did learn about this. [Interruption]…. Very little. I think that if one was more vigilant …. I think that the more you deal with this, you’ll be more competent and then you’ll be more into it.’ (Dr 12, 31-year-old woman).

Sub-theme 1.3 - Lack of resources as a barrier in the consultation process:

The doctors do not have drugs available that they can offer to patients with sexual dysfunction.

‘ At Urology for example, some men have erectile dysfunction. Then all we can say is ‘Sorry. We don’t have the medication here so if you want it, here is a private script. You will have to buy it yourself’. But then you have to do certain tests to see that he doesn’t get a heart attack.’ (Dr 12, 31-year-old woman).

‘ I am an old hand at it. It is the old people who complain, and I tell them, you had your chance, you must rest now [laughs]. We cannot help them, and they cannot afford a private script.’ (Dr 16, 67-year-old man).

Theme 2: Presuppositions and assumptions as a barrier to sexual history taking for sexual dysfunction.

Attitude and personal priority setting are barriers to sexual history taking due to competing priorities, the patient’s role, and responsibility as well as a need to convey positive messages. .

Sub-theme 2.1 - Competing clinical priorities as a barrier in the consultation process:

Doctors felt that they needed to give priority to tasks linked to addressing the clinical needs of their patients, especially in a context of perceived limited time.

‘ I don’t think it is a priority because at that stage there are more important issues that first need to be addressed and I think the patients feel the same.’ (Dr 12, 31-year-old man)

‘ We manage end organ damage. We will pick it up. It is just not priority. If it was important, patients will complain about it.’ (Dr 15, 46-year-old man).

‘ I think that’s why now we are not doing the proper thing… We have to do that, but I think the queues and number of patients makes it difficult for us.’ (Dr 07, 47-year-old man).

Sub-theme 2.2 – Perception of patient responsibility as a consultation barrier:

The doctor expected the patient to take responsibility of the discourse on sexual functioning:

> ‘ Ja, I hope that they will actually bring it up in the conversation. I think… they don’t necessarily know that these diseases might affect their sexual health or function. So, I think that makes it difficult.’ (Dr 10, 26-year-old man).

> ‘ They come with the main complaint; they stick to the main complaint until you start asking further questions then you’ll find out more information from them. ….Hmm…I think it’s more of patients not being relevant. I think if it is the main complaint, it’s the one that we’ll need to explore the sexual health or not.’ (Dr 03, 35-year-old man).

> ‘ I think…[laughs]…I don’t also ask myself unless they complain about it.’ (Dr 13, 27-year-old man).

Sub-theme 2.4 – A need to convey positive messages as consultation barrier:

Doctors described how they attempt to focus on positive aspects of the illness and management, and thus avoid talking about complications of diseases or side-effects of their treatment.

> ‘ …before giving the patient that medication we’ll tell the patient this will help you…like we’d rather tell him about the advantages of taking that medication unlike the side effects... Because if they know that it will cause sexual dysfunction, they won’t take the medication, they rather be bulls than having a diabetes.’ (Dr 01, 37-year-old man).

> ‘ We only talk positive things. Patients must not know too much otherwise they will have all the side effects.’ (Dr 16, 67-year-old man).

> ‘ …If I prescribe something like a beta blocker, or [brand name for anti-epileptic treatment], for a patient, I do not discuss with him the fact that it can affect the desire and the performance…I never had patients complaining about those side effects – it is rare.’ (Dr 17, 25-year-old man).

Theme 3: Socio-cultural differences as barriers to sexual history taking for sexual dysfunction.

Socio-cultural barriers like different perspectives, and sexual health as a taboo topic.

Sub-theme 3.1 – Individual differences as a socio-cultural barrier:

Doctors indicated individual characteristics that differ between patients and their doctors are a barrier.

> ‘ It is sometimes difficult when it is an older patient and then I am not at ease. One does not want to feel embarrassed, then you avoid it.’ (Dr 05, 46-year-old man).
>
> ‘ With males it becomes easy compared to female patients.’ (Dr 07, 47-year-old man).
>
> A doctor narrated how she communicated with the patient on his preference for a same sex doctor: ‘ I saw a patient with low libido, the first thing he asked: where is the male doctor? Because I have a secret with you. Like what secret [I asked]? The secret down there. And I was like, okay, it’s fine, you can see the male doctor.’ (Dr 08 34-year-old woman)

Sub-theme 3.2 - A taboo topic as a socio-cultural barrier:

Sexuality was described by some doctors as a taboo topic, because of a value system that prevents talking about it.

> ‘ It’s something that…I don’t know, I still grew up with, you don’t talk about it. And I know it’s much better now, but for me it’s just…it’s the unconscious decision that I don’t…I don’t even think about it. And I know you should and when they bring it up, you’re there…or I try to deal with it [laughs]. I struggle.’ (Dr 04 25-year-old man)
>
> ‘ We never ask. Besides, I do not know if it is good to discuss such sensitive issues.’ (Dr 14 39-year-old man)

Theme 4: Patient-doctor relationship as a facilitator of sexual history taking.

The patient-doctor relationship was described as facilitator of history taking for sexual dysfunction. It can improve the connection with the patient and enable doctors to be culturally sensitive.

Sub-theme 4.1 - Rapport building as a facilitator of the patient-doctor relationship:

Some doctors described the need to develop rapport to facilitate their ability to connect with their patients.

‘ Ask them how the marriage is going…then from the side to see how the relationship is going, and then…ja…from there. Or if the patient brings out that…it’s usually if the patient brings it out. I haven’t really elicited.’ (Dr 08, 34-year-old woman).

‘ …I find …you know, there’s something that I mentioned just in one word, the rapport that you establish in the patient, it’s so key. I’ve realised that when people feel more comfortable, or we try and make them feel more comfortable and you ask leading questions, they will always say, even ‘by the way there is this problem as well’.’ (Dr 15, 46-year-old man).

The importance of working to establish rapport was emphasized in one respondent’s understanding of how patients see doctors:

‘ Ja…I think patients are afraid of doctors, you know…they wouldn’t say much, … we are not true friendly faces.’ (Dr 06, 40-year-old man).

Sub-theme 4.2 – Cultural sensitivity as a facilitator of the patient-doctor relationship:

One doctor noted that cultural sensitivity was important to facilitate discussion on sexual dysfunction. He referred to how cultural backgrounds differ and influence the way patients narrate their symptoms.

‘ …and then that one I’ve realised, it also depends on the tribe, like which patients you are seeing. If you see a Xhosa man, he’ll tell you that, and then if you see a Sotho man, he’ll start from A, then the answer is in ABC, until the end, then you get the answer….So if you know that you are dealing with a Sotho guy, you know that you rather ask this and then the yes or no answer, unlike the explanation, because the explanation will take longer..... The whole story from childbirth [laughs].’ (Dr 03, 35-year-old man).

Discussion

The aim of the study was to identify barriers to and facilitators of history taking for sexual dysfunction that doctors experienced during recorded consultations with patients who have chronic illnesses. Three themes emerged which could be considered as barriers to sexual history taking, namely doctors’ personal and health system limitations, presuppositions

and assumptions, and socio-cultural differences. The fourth theme, patient doctor relationship could either promote or prevent sexual history taking.

Awareness of sexual challenges

The doctors were honest about their personal and health system limitations such as that they did not think about taking a sexual history for sexual dysfunction. The lack of resources to address sexual dysfunction, also limited their awareness and willingness to address sexual dysfunction. This was evident in the outcome of the 151 recorded consultations in this broader study which preceded these interviews where no sexual history for sexual dysfunction was taken in any consultation, and only five (3%) of doctors attempted a history on sexual risk behaviour.[44] A few other studies suggested doctors lack awareness of SD prevalence[30–32], but no other study suggested that doctors did not think about the need for a sexual history. Not thinking about it, has clinical reasoning implications which by itself influence screening and management.

Priorities and shared decision making

The presuppositions and assumptions theme suggested of a lack of evidence and shared decision making. Doctors did not consider sexual history taking as a clinical priority; they expected the patient to initiate the sexual health discussion and withheld information from patients regarding side effects of medicine by focusing on only positive outcomes. Salter et al[45] found in a qualitative study that the doctor played an important role in listening to patients and understanding their priorities to set mutually agreed upon goals for management of the illness. The assumption that sexual dysfunction is not a priority does not only suggest ignorance of sexual functioning as a biomarker of vascular and neurological complications[46],but also negate shared decision making. Despite a systematic review concluding doctors did goal or priority setting in the intervention of multi-morbidity,[47] the doctors in this study wanted to shift the task to the patient. Likewise did doctors expect patients to raise problems about side effect of medication when they failed to tell them the truth.

Patients must take the lead

Interestingly, our results show that the doctors believed patients must take the responsibility to initiate the discussion on sexual dysfunction. Thus, it seems the doctors were hiding behind their own reasons not to address sexual dysfunction, but at the same time were expecting the patients, who faced their own socio-cultural barriers, to bridge this gap for them in the consultation, by initiating the discussion. Doctors 12 and 15 thought

patients shared their thoughts on sexual challenges and if it was important to patients they would raise it. Although research has referred to these barriers being raised by either patients or doctors, our study shows the interdependency of these factors in the patient-doctor dynamics, as well as the that doctors focus mainly on presenting complaints. This expectation for the patient to lead the focus of the consultation must be considered in the context of the acknowledgement of an absence of openness in the doctor-patient interaction, described by Dr 06 as doctors ' not [being] true friendly faces'. One is left asking, if there is not a cordial relationship established in the consultation, is it reasonable to expect a patient to raise sexual health concerns? Or is it more appropriate that the doctor, equipped with professional skills, will explore sexual dysfunction as a co-morbidity or a sign of complicated disease? This is critical in terms of sexual health, but clearly has much broader implications too.

Learning and practice

Doctors are guided by policies and protocols that refer mostly to control targets; history taking for reproductive health and sexually transmitted infections is mentioned but and not for sexual dysfunction specifically.[48–50] Research suggest that training on sexual history taking at tertiary training institutions also focuses more on risk reduction and not dysfunction.[51] Globally there is consensus that present training on the scope of sexual health does not prepare students for practice and there is a growing need for better training in undergraduate years.[51,52] Role-modelling plays an important role in screening practices during training years.[53] Alimena and Lewis[54] found that when students believed that their medical school trained them well on screening techniques, and observed a preceptor doing a screening for sexual dysfunction, they had a higher frequency of screening attempts. This means that training in the formative professional years for a doctor may facilitate a permanent mind shift towards recognising the importance of sexual wellbeing.

The role of culture in learning

Thoughts, feelings, and perceptions regarding sexual health are not only shaped by politics and social events, but also knowledge and several layers of culture, religion, community values and beliefs.[5] Age and gender differences are often raised as a problem related to sexual health issues, but not other diseases or illness. Gender roles and age gap interaction is culturally defined and rooted in upbringing.[55] Culture shapes our understanding of sexuality, and our attitudes.[55] Upbringing in a socio-cultural reality

determines life perceptions and the decisions we make, while education instils the scientific knowledge and practice.[56] Our perceptions about sexuality form during childhood when expression of sexuality is often met with sanctioning for self-exploration of the genital area; met with silence and secrecy in adolescence; for some it is even difficult to discuss sex and sexuality in the safety of family home.[28,57,58] Being a professional later, the unwritten expectation is that the doctor raised in this sexually restricted environment will automatically be professional and spontaneously discuss sexual problems.. These socio-cultural barriers, which are often the basis of a difference in values between doctors and patients, then become a convenient, though unacceptable, excuse for not dealing with sexual challenges patients experience in chronic illness.

It appeared as if the barriers doctors experience in professional interaction with patients are sufficient justification not to think about history taking for sexual dysfunction, and thus no solution or change strategy was suggested to deal with competing priorities, time constraints or lack of resources in this study. To cope under severe service delivery demands, a form of regulated improvisation[59] results in doctors spontaneous falling back on engaging in ' just another routine consultation' where they do not have to deal with inner value or cultural conflicts on sexual dysfunction. Verplanken et al[60] summarised this as a form of automaticity where a person will repeat a specific response to a dilemma when facing the same behavioural choice – in this example, ignoring sexuality.

When patients and doctors discuss sexuality or sexual functioning, the doctors need to be culturally sensitive and manage their personal feelings. Good communication skills is the best predictor of sexual history taking[61] and therefore a professional approach, good communication skills and a sound knowledge of sexual dysfunction can limit these perceived barriers. A Spanish Intersex Clinic reported how important it was for doctors to display empathy, handle fear and uncertainty, and how it shaped their behaviour and clinical judgement on sexual health matters.[62] The doctors who referred to rapport building and communication in the interviews, unfortunately did not demonstrate it in practice during the recorded videos. It thus seems as if there is a disconnect between knowing good practice and doing it. Not talking about sexual health seems to be related to the way these doctors related to and communicated with patients in general.[44]

## Learning and clinical judgement

Thinking of clinical judgement, the knowledge of the doctors became important. The doctors' perception that the patient must take responsibility is anchored in the belief of how sexual dysfunction should present. There was also a lack of knowledge about sexual dysfunction as co-morbidity. Doctors' responses suggested that they did not know the prevalence of sexual dysfunction in patients with diabetes and hypertension and believed that sexual dysfunction was limited to old age; some even displayed a condescending attitude, such as the participant who stated that old people had had their chance to enjoy sex and must rest in their old age. Beliefs and knowledge are closely related in the way that if beliefs become knowledge if confirmed by some of the other scientific or normative standard. It is thus possible for doctors to think they know something and still to be wrong or just to believe they do not need more factual evidence of the perceived truths on sexual dysfunction and patient engagement.[62,63]The doctors in North West were not unique in this. A recent published study of interviews with 35 primary care doctors in Trinidad and Tobago also found that doctors reported insufficient medical training and knowledge of sexual dysfunction presenting in middle and old age, had conflicting personal beliefs, and socio-cultural factors also prevented spontaneous discussions on sexuality.[64]

## Vygotsky's learning theory

Learning theories such as Vygotsky's sociocultural theory suggest that learning is facilitated by the social milieu in which one is raised and then later inter-psychological learning takes place, where other people who are more knowledgeable or role models, shape one's thoughts and perceptions.[65,66] This sociocultural theory describes a so-called zone of proximal development where optimal learning takes place and may be for doctors during the medical training years. It is during these optimal training years that the importance of a reflective understanding of the patient and diagnosis rather than just managing disease must be established.[67] If doctors are trained in hypothetico-deductive history taking and scholarly reflection, combined with good communication skills, sexual history taking, patient care can improve. But most of all, it is important that in the transition phase between leaving home and becoming a professional, a doctor is taught that their socio-cultural beliefs may not be the truth for all, and the patient care supersedes personal beliefs.

## Strengths, limitations, and rigour

The strength of the study is that recall bias was limited. This research complied with the consolidated criteria for reporting qualitative research (COREQ).[68,69] Trustworthiness was secured using comprehensive data in the form of excerpts from doctors and constantly comparing the data. All the opinions were reflected irrespective if it was only one or more doctors expressing it. The methodology is repeatable. As this was the last data to analyse in the broader research project, and the researcher already identified patterns indicating a theoretical direction, the researcher relied on member check and research supervisors to present pure data organised in a balanced and meaningful way. The results as discussed are limited to primary care doctors in the North West province and may differ in other primary health care settings. The interviews were conducted sometimes during lunch breaks and mostly at the end of a working day, when doctors were tired, which could contribute to a loss of depth in some of the interviews. However, valuable information was gathered which opened new ways of thinking about barriers in sexual history taking.

## Conclusion

Doctors need a socio-cognitive and sociocultural paradigm shift in terms of the prevalence and importance of sexual dysfunction in patients with chronic illness. It is on the shoulders of educators during the undergraduate years of training, to facilitate this change. If it does not happen during this optimal learning period, it is unlikely to change. Most importantly, in terms of sexual health, this requires nurturing of the understanding that sexual functioning is a core factor in psychosocial wellbeing and quality of life. Thus, it is important that training programs not only address diagnostic criteria and consultation skills but also emphasize comprehensive patient care, which include sexual wellbeing.

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# CHAPTER 10: DISCUSSION

## 10.1 INTRODUCTION

This chapter presents the key findings of the six original papers included in this thesis. It also discusses patient consultation reality as observed in the study. In addition, an emerging theory on history taking for sexual dysfunction in primary health care is described. The first four papers (Chapters 4 to 7) are directly related to the consultation between doctors and patients. Paper number five (Chapter 8) investigated the doctors' clinical reasoning and judgment regarding sexual history taking. Paper number six (Chapter 9) described the debriefing interviews with doctors. The results from the six papers contributed to the emerging theory on SHT.

## 10.2 KEY FINDINGS OF THIS STUDY

The general aim of this study was to describe the consultation process and associated factors and skills required for successful disclosure of sexual health issues during a clinical encounter in primary health care settings in the North West Province, South Africa. However, no consultation demonstrating optimal sexual history taking was observed as no comprehensive sexual history taking was found in the 151 recorded routine consultations, which included sexual risk screening for STI or SD. Twenty-one doctors and 151 patients between 19 and 93 years of age, living primarily with diabetes and hypertension, were the study participants. The reasons for the patient encounters in this research study were administrative (repeat scripts), pain, and dizziness, as well as two patients who presented with specific sexual health issues, including a male patient presenting with a sexually transmitted infection and a female complaining of pain after intercourse.[1,2]

The article *Patient-doctor interaction inhibits sexual history taking in routine primary care consultations in North West Province South Africa*[3] (Chapter 4) aimed to quantify the observations and descriptions of sexual history taking during routine consultations in primary care settings and to identify whether patients wanted to discuss sexual issues with doctors, ascertain possible barriers to sexual history taking, as well as to assess the nature of the communication and holistic practice of doctors in these consultations. After analysing the recorded consultations, no history taking for SD took place, although doctors in five consultations (3%) enquired about patients' HIV status and vaginal health. Twenty-one percent of the consultations did not have evidence of adequate communication and consultation skills, and 54 consultations (36%) reflected only a working relationship with the patient, focusing on the problem and not the person (Figure 10.1). Most consultations (66%) had insufficient evidence of holistic practice. Patients assumed the doctors would ask about

SD, and the doctors were waiting for patients to initiate the discussion about it. Generally, patients believed nothing would stop them from discussing sexual challenges with their doctors, except if the doctors were rude, and did not listen (Figure 10.1), but none were raised in these consultations. Doctors, on the other hand, highlighted that there were too many other things to discuss during the consultation to address sexual function and identified time constraints as the most important barrier to enquiring about sexual health. There was no difference noted between the performance or SHT of South Africa-born and trained versus foreign trained doctors.

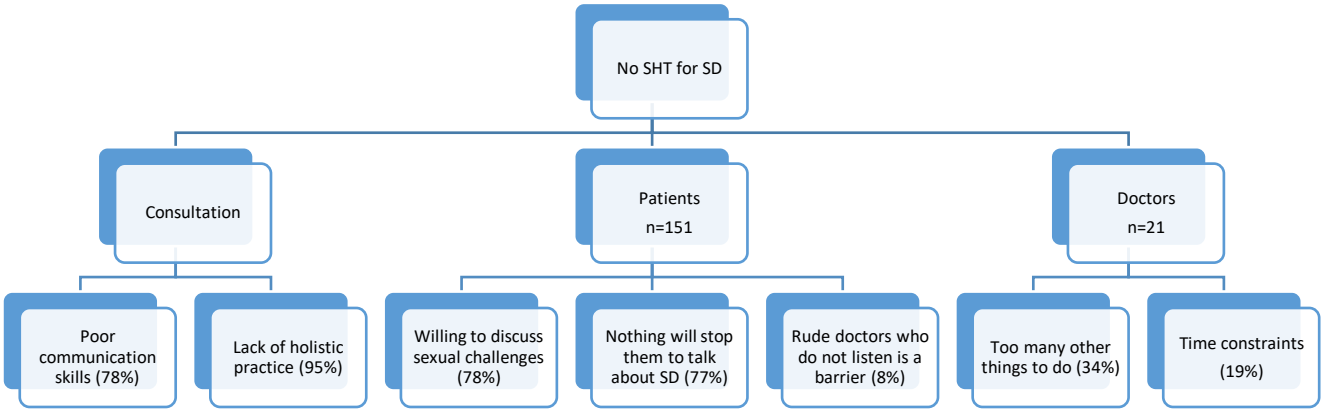


**Figure 10.1: Quantitative Overview of SHT in 151 Consultations**[1]

Chapter 4 contains the results presented in *Sexual history taking: Perspectives on doctor-patient interactions during routine consultations in rural primary care in South Africa.*[2] The aim was to describe sexual history taking as well as the doctor-patient interaction regarding sexual history taking, during routine consultations in primary care settings, and specifically in the Dr. Kenneth Kaunda Health District, North West Province, South Africa. Four encounters to establish the HIV status of patients were observed, but no sexual history taking was attempted. All the patients experienced sexual dysfunction symptoms and, except for one, patients met the criteria for sexual dysfunction disorder as measured with two standardized questionnaires. One patient presented with pain after intercourse and the assumption was made that it was caused by a past caesarean section. Despite this patient having SD, which included lubrication challenges, she was advised about vaginal hygiene practices by the doctor. In this paper, three themes emerged, namely the patient-doctor relationship, the context of the consultation and consultation content (Figure 10.2). The results showed that doctors in the consultations were paternalistic and doctor centered, and communication was characterized by close-ended and leading questions. Furthermore, doctors tended to talk to the translator and not the patient. The presenting complaint and chronic illness were dealt

with by doctors in a superficial way with no feedback or opportunistic health education. Professionalism was hampered by doctors not greeting the patient, and no washing of hands after the examination of each patient.

The results also showed that privacy was a challenge, and time management was compromised by administrative challenges, such as disorganized files where the doctor had to page up and down to find the correct information. Time was also wasted while doctors tried to retrieve laboratory results from their personal mobile phones.

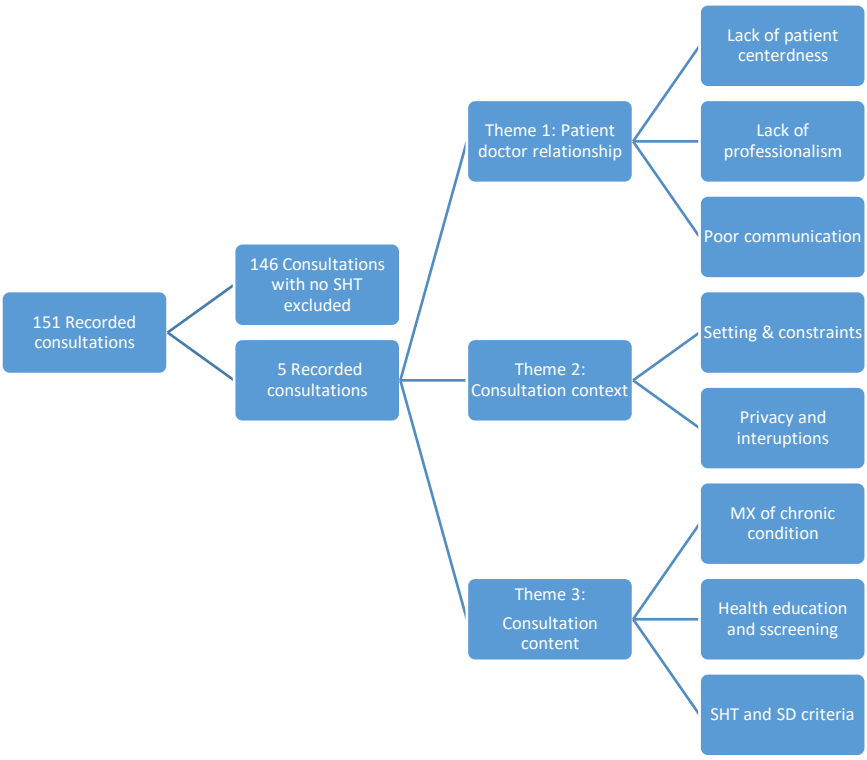


**Figure 10.2: Qualitative Summary of Four Consultations Discussing HIV and One Discussing Vaginal Hygiene[2]**

*Neglected sexual dysfunction symptoms among chronic patients during routine consultations in rural clinics in North-West Province*[1] (Chapter 6 and Figure 10.3) assessed the proportion of patients living with symptoms of sexual dysfunction that could have been elicited or addressed during routine chronic illness consultations. It was determined that a large proportion of the study participants lived with symptoms of SD. Of the 81 women who were sexually active, 6% did not have any symptoms of sexual dysfunction as measured with the FSFI. One man was not sexually active due to erectile dysfunction. Forty six of 47 men (98%) indicated on the IIEF that they had erectile dysfunction symptoms. As the patients had a normal age distribution varying from 19 to 93 years, SD cannot be attributed to disease and medication only. The study findings showed that during routine consultations in primary care

the cause of SD was not elicited. Concomitantly, patients trusted their doctors and 74% believed their doctors must know about their sexual health.

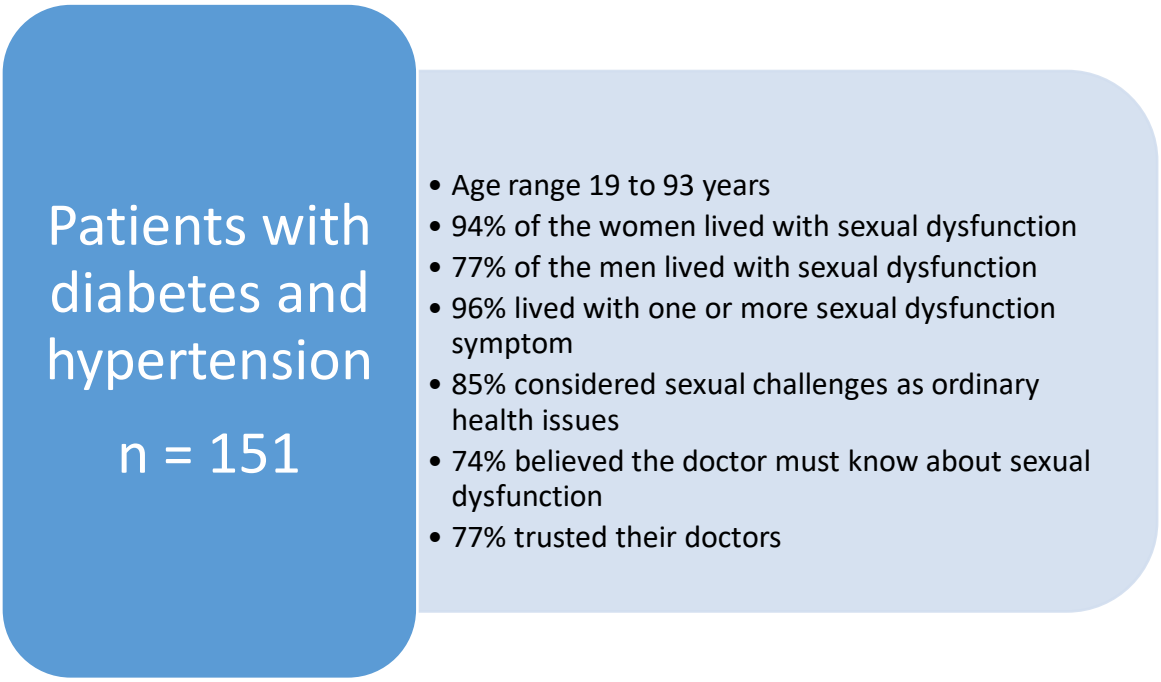


**Figure 10.3: Key Findings on Sexual Dysfunction[3]**

Chapter 7, *Perspectives on sexual history taking in chronic primary healthcare consultations in the North West Province, South Africa: Disconnect between patients and doctors,*[4] explored doctors' and patients' perspectives on sexual history taking during chronic primary healthcare consultations with patients at risk of sexual dysfunction, and reported how patients and doctors viewed talking about sexual matters, as well as their perspectives on barriers to and facilitators of sexual history taking. There was a clear disconnect between patients and doctors when it came to their opinions on SHT (Figure 10.4). Patients were hoping doctors would ask about their sexual challenges; they expected doctors to be open, friendly and to listen to them, as well as be knowledgeable and competent. Doctors felt they lacked knowledge and skills on SD and on how to engage with patients regarding sexual challenges. A few raised cultural differences as a barrier; from the doctors' perspective a barrier for engagement, and from patients' perspective that the doctors may not understand their cultural practices to deal with sexual challenges. Doctors also did not think SD to be a priority, unless it was clinically indicated, and believed they did not have time in the consultation to deal with it. Doctors expected patients to disclose SD and to be receptive to advice. Furthermore, sex and age differences were found to be not that important to participants.

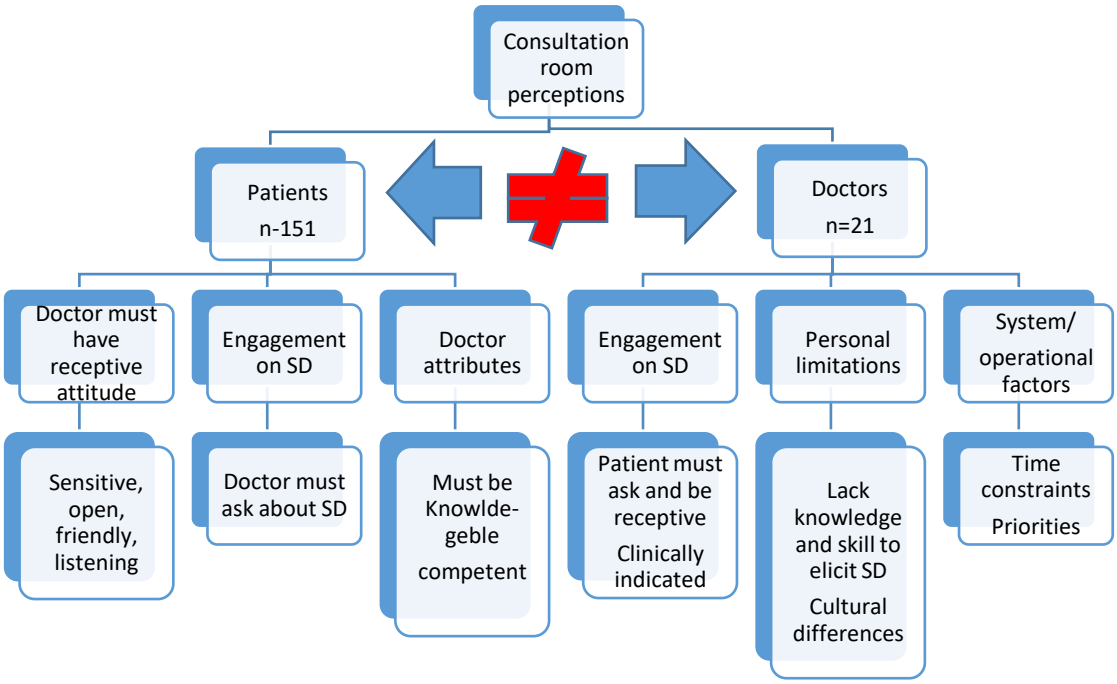


**Figure 10.4: Key Findings on Barriers and Facilitators of SHT[4]**

The article *Sexual History Taking: Doctors' clinical decision making in Primary Care in the North West Province, South Africa*[5] (Chapter 8), presented the doctors' clinical decision-making process regarding sexual dysfunction risks and management in chronic illness patients in primary care, based on two hypothetical patient scenarios. It aimed to assess their diagnostic perceptions and management of these two scenarios, and to compare their outcomes with the outcomes of a reference group. The doctors were given two hypothetical patient scenarios in a vignette format where the patients (one a woman with diabetes and the other a man with hypertension) had indicators suggestive of SD. Their answers were then compared to what a reference group would expect to be the answer of a junior doctor or intern. Only one doctor (5%) considered sexual dysfunction, referring to it as "sex life"; there was, however, no evidence that this doctor wanted to explore or manage it. The doctors' clinical reasoning and decision making were not on the level the reference group expected and there were statistically significant differences between the doctor participants' answers and what the reference group expected as standard responses. It was clear that although the doctor considered a possible diagnosis suggestive of sexual dysfunction, it was not followed up in either investigation or management options. Their decision making was inhibited by a lack of awareness and knowledge of SD.

To identify barriers to and facilitators of sexual history taking that primary care doctors experience during consultations involving patients with chronic illnesses, reflective interviews were used. 'We are not truly friendly faces': *Primary health care doctors' reflections on sexual*

*history taking in North West Province*[6] (Chapter 9), which reported on debriefing interviews at the end of the data collection, brought new information to the fore regarding why the doctors did not take a sexual history. Four theoretical themes emerged from these interviews, namely personal limitations, the consultation process, socio-cultural differences, and the doctor-patient relationship (Figure 10.5). The most prominent barrier was that doctors did not think of SD, followed by them not considering it a clinical priority during a routine consultation (Chapter 8). The doctor does not consider SD a priority, but does the patient feel the same? Did the doctor ask the patient? This was another decision the doctor made on behalf of the patient.

Time constraints and lack of management options for SD was also a concern for doctors. They preferred to adhere to positive messages rather than discuss SD risks. Sex, age, and cultural differences were mentioned as well as sexuality being perceived as a taboo topic. The socio-cultural undertone regarding sexual activity was present whether it was in the avoidance of the discussion with a patient or the fear of cultural sanctioning, their socialization in family of origin and in the forming years at university, facilitated the silence around sexual dysfunction in the routine consultation.

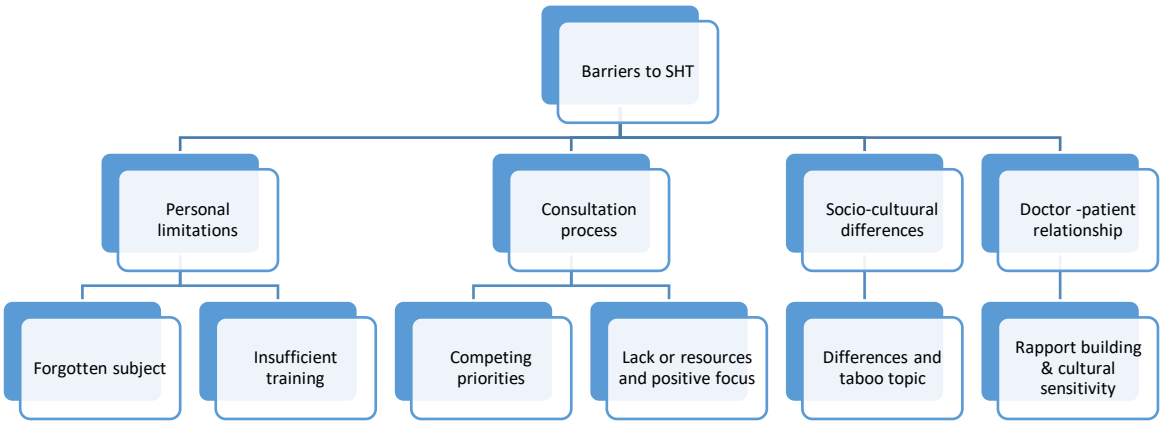


**Figure 10.5: Summary of Themes Emerging from Interviews with Doctors[6]**

Patients consulting at the time of the study lived with SD symptoms and even sexual dysfunction disorders. The information was assessed in various ways and at various points in time. Both qualitative and quantitative information confirmed that:

- doctors did not consider SD a priority during the routine consultation;
- a high proportion of patients lived with SD;
- doctors did not think about SD as a complication, co-morbidity, or differential diagnosis; and

- both doctors and patients experienced barriers preventing them from engaging on SD.

The doctors experienced more barriers to SHT than the patients, but unlike that of patients, these barriers were often within their control to change. The consensus in both the questionnaires and interviews were that doctors expected patients to take the lead in sexual health, even though they were aware that patients did not always understand the link between their sexual challenges and chronic conditions. The percentage of doctors thinking about SD in a hypothetical scenario was 5%, and 3% of the consultations had poor examples of SHT. There was generally a poor awareness amongst the doctors on the prevalence of sexual dysfunction amongst patients with diabetes and hypertension. The lack of awareness of SD and how chronic illness influences SD have been shown in previous studies.[7–10] The doctors shifted their responsibility of taking a sexual history to the patient disclosing sexual challenges. This disconnect between patients and doctors as well as non-optimal clinical reasoning and decision-making which manifested in poor patient-doctor engagement during the consultation, contributed to poor patient-doctor dynamics and thus poor SHT. Ultimately this could lead to patients living with frustration and poor quality of life due to SD.

## 10.3 SEXUAL HISTORY TAKING: A CONSTRUCTED REALITY

Our understanding of reality (ontology) shapes our knowledge and perception of knowledge (epistemology). The reality as assessed in this study applied to the doctors and patients at the time of the study in the rural North West Province. Both doctors and patients thought their ideas and decisions were a true reflection of the consultation reality. The Social Construction of Reality theory of Berger and Luckmann[11] was used to analyse and describe the research findings.

Medicine as we know it today and the form in which it exists, is already a social construction. Medicine is a cultural system contributed to by the classification of illness as well the management options that are used in medicine.[12] In this study, the health care setting, illness, diagnostic criteria and pathophysiology of the illness, as well as the role of doctors and patients have been constructed and defined through culturally determined socialization processes over centuries[12]. The medical stage was set for specific role players with certain and reciprocal role scripts of how they present themselves to each other and that determined the interaction process in this study.[11,13] It is also acknowledged that the social distribution or availability of knowledge in the social construction of reality means that we know very little of each other's worlds,[11] and thus can only assess what the interaction process and role-players allowed to be seen.

The components of the objective reality for SHT in this study are the consultation itself, the setting as contextual reality, and the double reality of the patients and their illness as well as the doctors as role players, with both patients and doctors also bringing their individual and unique realities to the consultation (Figure 10.6). There is also the reality of the researcher observing the SHT process, but who is also part of and shaped by the socio-cultural context. Even the concepts that describe this research study are socially constructed and maintain the subjective reality, for example, patient centeredness. These systems maintain their character and interact with each other based on certain values and rules shaped by these same interactions over time.[11] It seems as if the interactive roles of patient and doctor are so deeply embedded in society, that it is as institutionalized as the health care service itself. The nature of the patient and doctor roles are primarily socialized when a child goes for immunization or illness to a doctor or health care facility, observing and experiencing patterns of behaviour, and then strengthened by secondary socialization when the person internalizes this role-specific knowledge and behaves or interacts accordingly.

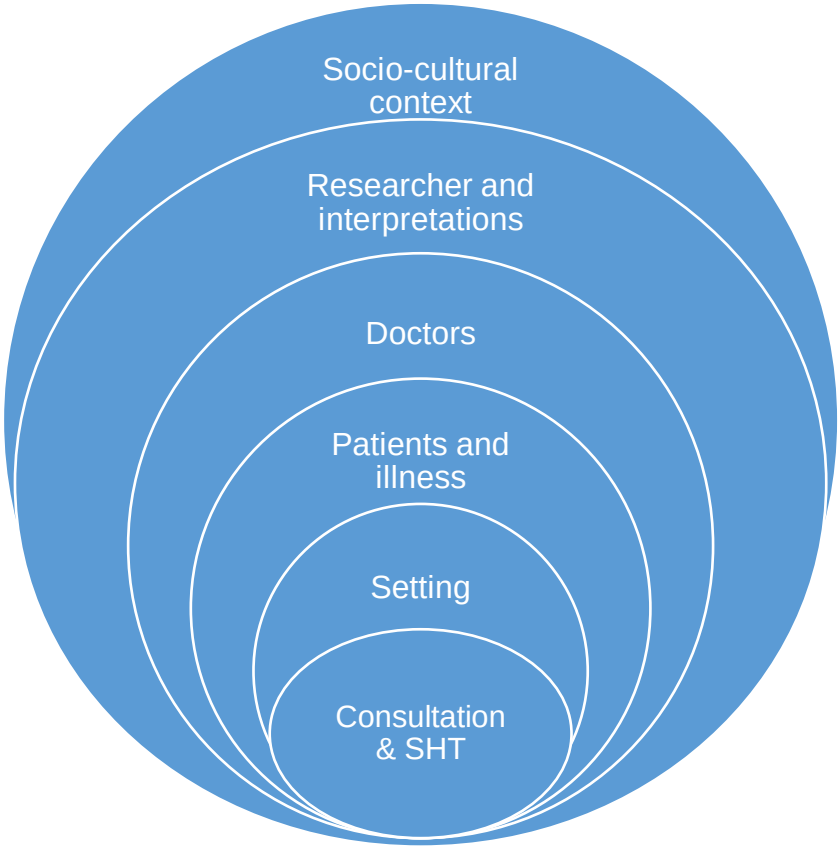


**Figure 10.6: The Components of the SHT Reality According to the Researcher**

### 10.3.1 The health care service as co-constructor of the SHT reality

The health care service, especially in rural areas in South Africa, has been shaped by a broader political and socio-economic history; and this is also true for the people who use it.[14] The segregation of the apartheid years is still seen in the geographic distribution of people in South Africa, especially in rural areas. The patients frequenting the health care service often

have low education levels, as evidenced in this study,[1] and little to no financial resources.[15] This affects their knowledge and understanding of the health care service which is shaped from a medical cultural perspective, but even more often, how they see themselves and how they are seen by the system. The role and attitude of health care workers and administrative staff at the health care facilities thus also shaped access to these services.[14,16] As discussed in the reflexivity section, patients were not always treated with respect or as a valued end-user or customer of a service. Administration challenges such as missing files, also contributed to a lack of access and delayed services and have previously been documented in the rural Limpopo Province of South Africa.[17] There is even stoic acceptance when the system comes to a standstill due to a missing file. The system is characterized by too many patients, insufficient funding, and long waiting times, and by its nature is process-driven to deal with the demand for health. This is illustrated in Figure 10.7. This reality of the institutionalized health care service shapes the ideas and social expectations of health care in the future and, in this way, legitimized the dysfunctional symbolic universe as acceptable quality care.




**Figure 10.7: Health Care Service in the North West Province as Co-Constructor of the SHT Reality**

### 10.3.2 The Doctor as Co-Constructor of the SHT Reality

Figure 10.8 represents the doctor's reality as a professional rendering service to patients. The doctor in the health care service has met specific educational criteria to register as a medical practitioner. Besides this level of knowledge and professionalism, they function in a world where scientific and technical progress as well as socio-political changes dictate and

shape their resources and ability to practice.[18] Resources include human resources as in a comprehensive workforce and little disruption of industrial action of unionized staff;[19,20] technical and administrative resources, unlike where doctors use their mobile phones[21] to verify evidence based practice; access to laboratory results of patients due to rurality as well as poor governance and the unavailability of printed hard copies of results timeously placed in patient files to be available at the time of the consultation. A study of professional nurses in the Eastern Cape Province, South Africa, found a lack of resources and administrative support a barrier to patient-centredness.[22] This does not incorporate the effect of role substitution in primary health care by nurses in the nurse driven primary care settings where doctors are treated as visitors at the clinic and have little to no say in the governance of the clinic. Chronic disease is escalating and the competition for resources in the health care sector is increasing; the doctors' authority to manage these resources in primary care is often limited.

The doctors exert their power and authority to determine what happens in a consultation as well as to set the norms of sexuality and the boundaries for the discussion thereof.[23] Their lack of knowledge of SD and SD management or SHT, dictate the engagement. It is however difficult to understand how they can justify their lack of knowledge. From a lecture-rich education system, doctors entered practice in a world with vast amounts of readily available biomedical information.[24] The idea was that self-directed learning in undergraduate years would transform to continuous development of the biopsychosocial practitioner, but the process-driven system is ruled by guidelines and essential drug lists, and patients waiting for health care services. The system hierarchy quickly shapes the doctor into a standard biomedical being pushing queues with little empathy and decreases the chance of them connecting with their patients to practice holistic care.[25,26] The doctor may feel disempowered and then exerts their power over the patient, becoming doctor-centred. The impaired setting becomes the normalised context for care. The social demands for quality care in these settings also contribute to burn out. One must ask whether the paternalism or doctor-centred care is not a way of coping with the overwhelming exhaustion and depersonalization due to burn out.[27,28] How does the doctor gain more knowledge if they are exhausted? Or is the diagnosis of burnout a result of a dysfunctional system and poor quality health care?

The doctors in this study focused on control targets in chronic disease and justified their lack of interest or inability to draw a clinical link between chronic disease and SD as setting priorities or just not thinking about SD as possible comorbidity.[4,6,29] Their doctor-centeredness is so ingrained, that their personal discomfort of feelings of embarrassment in dealing with the sexual challenges patients live with was more important than the patients' wishes, quality of life and sexual well-being. Similarly, the importance of sexual functioning for the patient

was negated as doctors did not consider it a priority. The paternalistic notion to protect the patient and make decisions in the patient's interest or on their behalf also manifested in their perception that sexual functioning is too sensitive a topic or a taboo topic.[1,4,6] These perceptions most likely come from their personal socio-cultural socialization. As these unconscious personal agendas prevent them from engaging on the topic, there is no opportunity to reshape or change this sensitivity notion. Culture and socialization contributed to sexual wellbeing becoming a non-issue in routine consultations, an understanding that is so entrenched and legitimized, that it is used to justify not taking a sexual history.

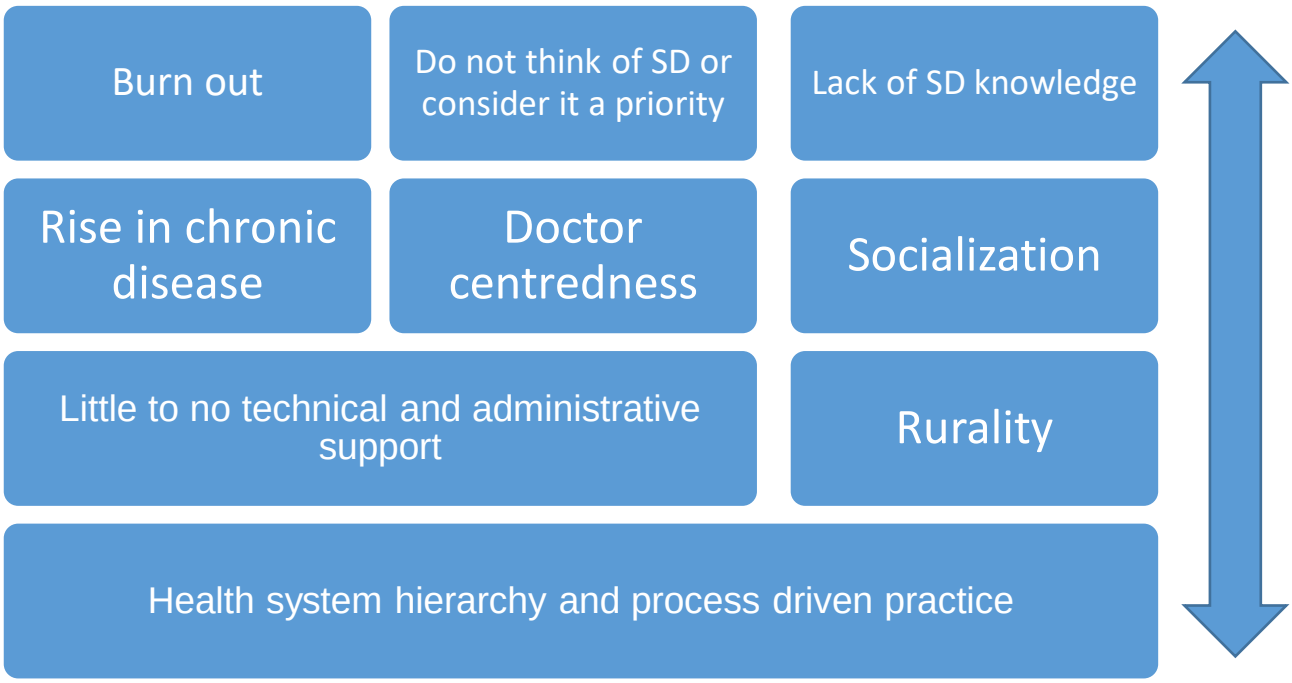


**Figure 10.8: The Doctor as Co-Constructor of the SHT Reality**

### 10.3.3 The Patient as Co-Constructor of the SHT Reality

Although patients could reach out and consult for sexual dysfunction symptoms they experience, they failed to do so. They were already seeking medical attention for their chronic illnesses. The question would be if patients knew what they experienced was appropriate to raise in a consultation, as SD may be an unfamiliar construct in the cultural frame of reference.[30,31] One can also ask if it is ethical not to take a sexual history if the doctor knows that the illness the patient lives with and the medication they use can cause SD, or alternatively that the disease increases the risk of vascular and neurological complications which often manifest as SD. Kok[32] postulates that not taking a medical history is an ethical violation; could one say the same for failing to take a sexual history? The patient is nevertheless unaware and is presumably satisfied that their best interest was served.

Alternatively, they have given up asking as previous experiences taught them that they would not receive help.

Figure 10.9 represents the patient as a receiver of the health care service. The patient is often considered as a passive role player in the health care service, waiting for, and grateful for, whatever the system offers.[33] This habitual gratefulness was shaped by generation after generation of paternalistic doctors who saw it as their responsibility to take care of patients as patients did not know how to do it themselves.[34] Although concepts such as patient-centeredness and shared decision making have been part of medicine and health care services since 1969 and 1999, respectively,[33] patients still live with the habitual paternalistic care doctors practice.[34] As noted above, patient expectations are socially and cognitively defined constructs, with the core being culturally determined by socialized belief systems.[35] These expectations can vary from expectations for respectful or expert service up to positive management outcomes. As interaction and experiences shape constructs such as service and health care in patients' minds, constant poor services become the standard expectation construct. Where patients are used to inferior services and paternalistic doctors, they develop an apathetic acceptance of this and do not object to it anymore; they also expect nothing better, and the construct of quality is redefined. It is then also not strange that persons in low income countries and challenged health care services rate poor quality health care as good.[36,37] It important to note that in this research study patients only expected a friendly, knowledgeable and receptive doctor; a doctor that would listen to them; a doctor that would ask about sexual challenges.[4,38]

Patients in this study lived with sexual dysfunction.[38] Illness is a social construct of its own and associated with the patient in the consultation. As science develops, health care professionals understand pathophysiology better, and have better technology to verify a diagnosis, e.g., a Doppler test for erectile dysfunction. However, we also need to understand that sexual dysfunction is another social construct, that is most of the time shaped by the assumptions of the heteronormative and often male-dominated society about sex, behaviour and what is considered normal.[39,40] The patient's inquisitiveness around sex, manifested in surfing the internet, also contributes to the shaping of the sexual functioning or dysfunction reality.[41] If the doctor does not engage in this topic, the patient may be harmed by wrong or inappropriate information.




**Figure 10.9: The Patient as Co-Constructor of the SHT Reality**

10.3.3.1 **Patient-doctor engagement: the constructed consultation reality**

In the first instance, the consultation was shaped by knowledge, experience, and practice over time by the patient, the doctor, and the healthcare system. In this study, there is an imbalance in the consultation, leading to a disconnect between patient and doctor (Figure 10.10). The worlds of the patient, doctor and health care service all meet during the consultation. When the patient and doctor engage, verbal communication facilitates the maintenance of the subjective reality.[42,43] Communication, and specifically language, is a way to describe the reality of whatever the person or system represents, as well as renegotiating the meanings attributed to the actions within this construct of interaction.[43] As human actions are determined by ideas, beliefs and intentions, language mediates these realities.[43] Every society has an ontology of health and illness and these constructs meet with the supposedly objective knowledge of reality (epistemology) obtained through systematic observation and indexing called science in a patient doctor encounter.[44]

It is not only society that gives social meaning to constructs; communication also facilitates the shaping of roles and constructs. It is often the discourse during the consultation that keeps the patient in the sick role, where the patient must listen to the doctor and obey their prescriptions, and the doctor, in their position to diagnose and treat, grants the disease a social meaning.[45] This research study had ample examples of such paternalistic care, where the doctor spoke, and the patient listened or seemed to be listening. These patient-doctor communication patterns are also learned and, as with culture, familial roles, beliefs and norms, are shared and transmitted intergenerationally.[46]

The paternalistic care became a sub-culture in the health setting where doctors failed to consider the real and perceived realities of the patient and practice in a climate of no answerability. A previous study found that professional nurses displayed more accountability to the patient and had optimal communication with the patient if they were familiar with the patient's culture and values.[22] This implies interaction on a level that is more complex than the superficial contact patients have when repeating a script in primary care. A previous study has shown that communication with doctors during a consultation is often asymmetrical, with doctors talking more (using more words) than patients.[47] The doctor thus often determines the pace and content of the consultation. This asymmetry is associated with a paternalistic discourse[47], and was also observed in this study and prevented the patients from sharing their health stories, values and expectations.

#### 10.3.3.2 **Patient-doctor engagement: core finding and theoretical direction of the emerging theory**

Mills[48] emphasized the use of axial or focused coding to draw connections between the codes. This was then followed by focused / selective coding where the core or central category emerged. The central categories are presented in the paragraphs 10.2 to 10.3.3. The core category that featured in all the interpreted data and could be considered the theoretical direction of the emerging theory, was the doctor-patient engagement. Strauss and Corbin[49] stated that "Theorising is the act of constructing from data an explanatory scheme that systematically integrates various concepts through statements of relationship" (p. 25). The core category is a conceptual connector and summarises the relationships between categories; it reflects the causes, consequences, and the conditions which affect all the other categories.[48] The routine consultation for a chronic illness was the moment when the constructed realities of the patient, the doctor, and the system met, and the poor patient-doctor engagement created an imbalance in the interaction dynamics which led to a patient-doctor disconnect and no SHT (Figure 10.10). The poor patient-doctor engagement was a direct cause, consequence or affected by the interpreted categories related to the doctor, patient, and system. Figure 10.10 shows factors contributing to poor sexual history taking that leads to screening for sexual dysfunction in patients, with patient-doctor engagement as the core component.

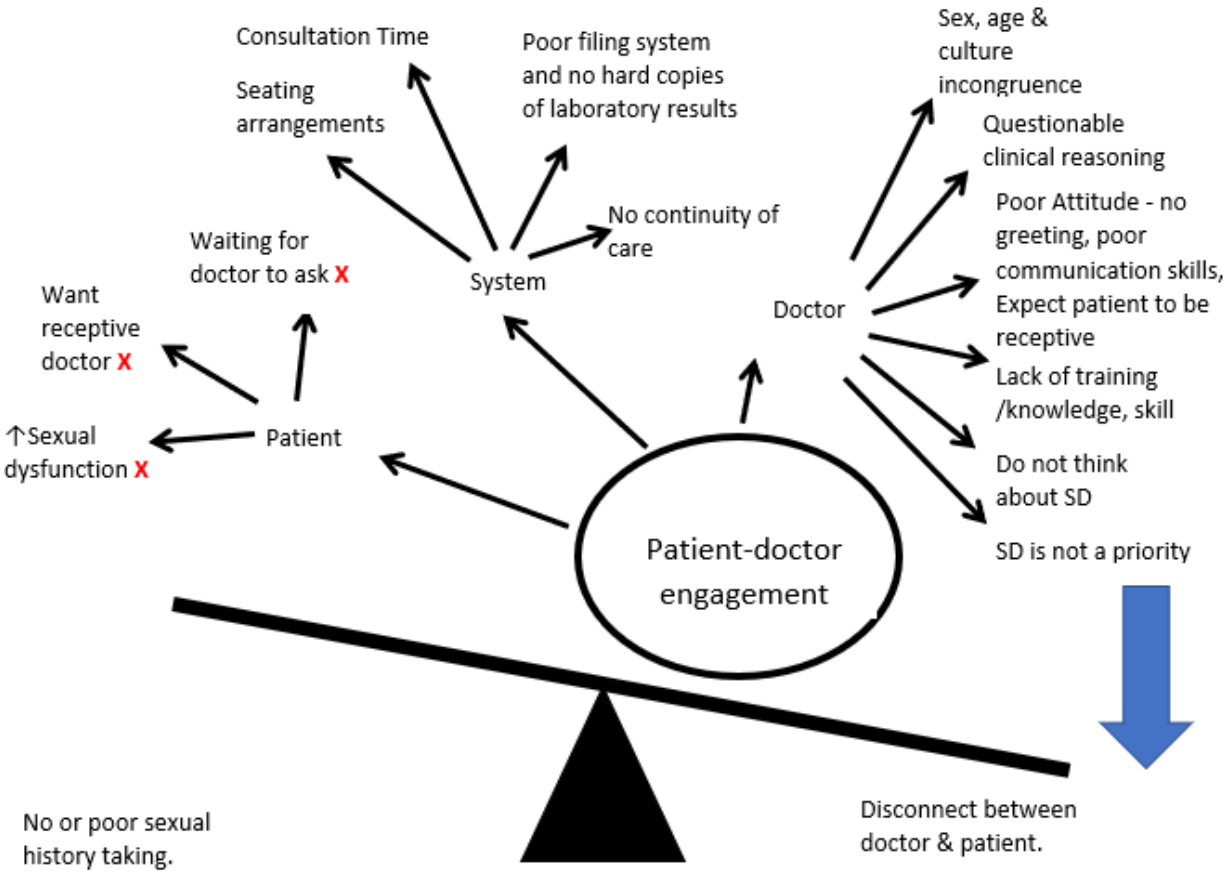


**Figure 10.10: Summary of Factors Contributing to Poor Sexual History Taking that Led to Omitting Sexual Dysfunction in Patients**

10.3.3.3 **Fundamental problems in the patient-doctor-system interaction**

Patients consulting for routine consultations dealing with chronic illness management in primary care live with sexual dysfunction. Although the sexual history is part of a comprehensive consultation, SHT is unlikely to happen if the patients', doctors', and system's realities are not aligned. The emerging and proposed theory is that sexual history taking for sexual dysfunction can only occur when improved rapport between patient and doctor replaces the existing patient-doctor disconnect; the patient-doctor engagement with its elements (patient, doctor, and system) must shift. Although the research focus was SHT, it highlighted fundamental problems in the patient-doctor-system interaction.

- Firstly, the health care service is failing the patient and the doctor. The system does not support the doctor to render an optimal service. This support refers to administrative aspects such as the availability of laboratory results on the file when the patient consults (not even to mention faster turnaround times for results) and properly structured patient files so as not to waste time looking for information; it also refers to human resource

aspects in relation to the need for securing sufficient workforce personnel to satisfy the growing demand for health care.

- Secondly, the system does not put the patient first – patients have long waiting times and are met with often unfriendly doctors (or nurses) who fail to greet them or optimally engage with them. The system often fails to provide curtains or a private examination area in some consultation rooms with the consequence of doctors consulting and sometimes examining patients without considering privacy and preserving the dignity of the patient. Unfortunately, where curtains were provided, some doctors failed to use them. Doctors tolerated nurses and other doctors interrupting a consultation in search of a form or equipment that their offices did not have. Furniture in the clinics is positioned in an old style that requires working across a desk from patients, and doctors do not make the consultation room a more patient friendly environment by changing the seating arrangements.

- Thirdly, doctors rushed their consultations, failing to apply the rules, regulations and guidelines that regulate their practice. The patients were passive users of what they received from either the doctors or the system. However, they voiced their dissatisfaction in private with the researcher and research assistant. The consultations were not patient centred: they did not encourage any form of verbal discourse, and there was no shared decision making, or even an enquiry regarding how the patients experienced their illness. Despite all these challenges in the patient-doctor encounter, the patients still indicated that they trusted their doctors. Could it be the nature of the profession that patients trusted, or was it a socially acceptable response to trust them? It seemed that the patients were not assertive enough to engage with the doctors or to raise personal concerns, despite indicating that they would be able to raise sexual health challenges with them.

- Lastly, the dysfunctional dynamics applied to all the recorded consultations and must affect more aspects in consultations than only SHT. If SHT was a key performance indicator, then these findings sketch a bleak picture of patient-doctor encounters and service delivery in primary care in the North West Province. There is also no reason to suspect that primary care consultations in other similar communities in South Africa is any different. If quality health care is important to patients' quality of life and satisfaction, the patient-doctor-system interaction must change.

### 10.3.4 **Proposed Theory: Patient-Doctor Engagement - Change to Dynamic Interaction**

The emerging proposed theory to improve SHT is one of 'dynamic interaction'. Lazlo[50] referred to the reality revolution and postulated that the world would not become a better

place. Inequality and poverty are on the rise, global warming is changing the atmosphere, epidemics and infectious diseases are spreading across the world, and the pressures on the health care service will worsen. Knowing the pressure that already exists in health care, consultations will have to become smarter and more inclusive. Lazlo further argues that every individual must know themself as part of the interconnected world.[50] It is this interconnectedness that shapes realities, whether it is our health experiences or those of the significant others in our lives; everything we connect or interact with, shapes our reality. The reality, just like culture, is dynamic and can change. The constructed reality of the patient-doctor engagement in primary care routine consultations, as assessed in this study, can and must change. A robust, energetic process of constant progress (dynamic) facilitating reciprocal or shared action between individuals and/or systems (interactions) is required. The proposed theory of 'dynamic interaction' implies that if there is a shift in the patient-doctor engagement, not only can SHT occur during routine consultations (Figure 10.8), but patient care in general will benefit.

The change in the consultation is dependent on the doctor, the system, and the patient to modify their interaction patterns. Figure 10.11 illustrates modifiable factors and non-modifiable factors as assessed by this study. Factors such as seating arrangements and privacy, poor attitude; lack of knowledge and communication (highlighted in yellow) need immediate attention, while factors such as poor filing and availability of laboratory results (highlighted in green) are dependent on more system-related decisions at appropriate hierarchical levels. These non-modifiable factors are outlined in Table 10.1 and although likely non-changeable, their management or the way they are interacted with, can be changed.

**Table 10.1: Perceived Non-Modifiable Factors in the Patient-Doctor Engagement**

| Non-modifiable factors and response recommendations |
|---|
| Factor: The reality of sex, gender, culture, and age differences in health care.<br>Response: Doctors can change how they respond to these. |
| Factor: The health care service can strive for continuity of care, but it is unlikely to happen in the present South African context with interns and community service doctors supporting and gaining experience in primary care, and only a few career doctors.<br>Response: The doctor may set up the booking structure differently in their clinic to facilitate continuity of care. |

| Non-modifiable factors and response recommendations |
|---|
| Factor: Consultation time is dependent on the number of patients that are scheduled and available hours in a day.<br>Response: Given the human resource challenges, doctors can optimize their time with the patient by addressing some few administrative challenges and using better communication strategies. |
| Factor: Doctors expecting the patient to be receptive is reasonable<br>Response: This receptiveness must be reciprocated – it can restore some symmetry in the doctor-patient relationship. |
| Factor: Sexual dysfunction is part of life and illness.<br>Response: Doctors can change their awareness and willingness to engage with patients on it. Patients can be more verbal about it. |

To achieve these changes requires paying attention to various change agents: the push factor of the doctors' practice habits (change agent 'A' in the diagram), and the pull factor for patients to participate more in their health care (change agent 'B' in the diagram), as well as the system related policy and governance decisions which the doctor may or may not be directly involved in (change agent 'C' in the diagram). Figure 10.11 is a schematic representation of SHT as a dynamic interaction.

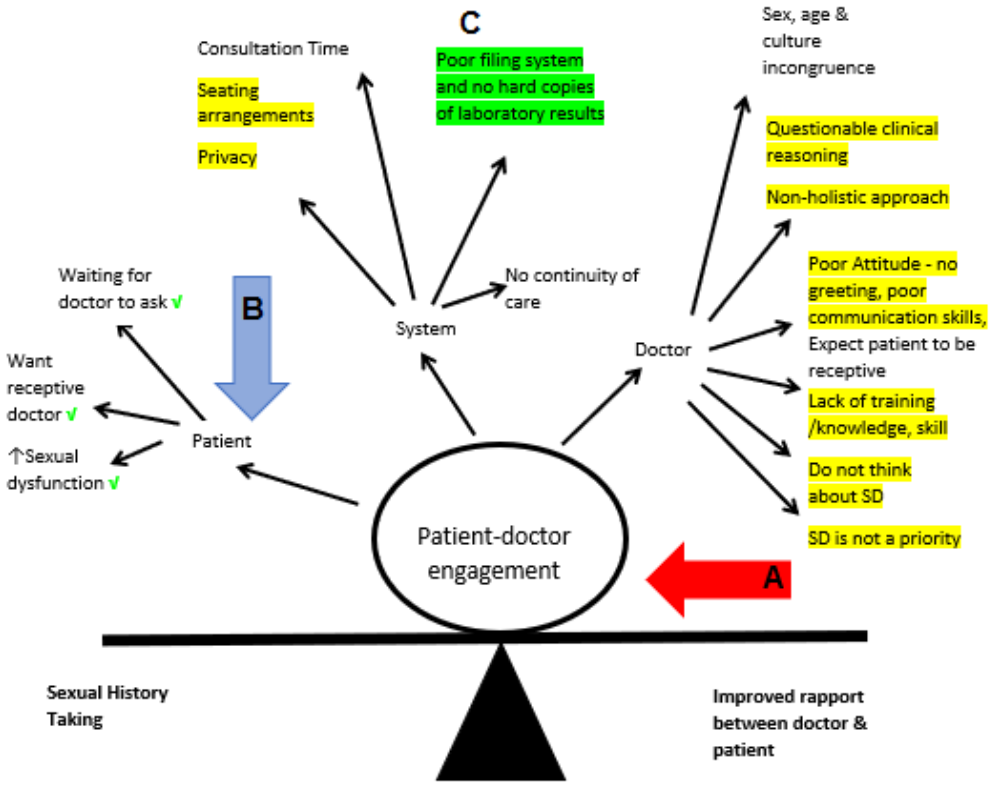


**Figure 10.11: Schematic Presentation of SHT Reality in Motion**;

**A** is change the doctor can make in their practice, **B** is the nudge patients need to be assertive and participate in their health care, and **C** is the system related policy and governance decisions

The skills needed to include these non-modifiable elements in the consultation will improve if the strategies to shift the patient-doctor engagement are implemented. Table 10.2 is a summary of possible strategies that can address the modifiable elements in the consultation to facilitate the shift or interaction change.

**Table 10.2: Perceived Modifiable Elements of the Consultation and Possible Strategies to Address it**

| A - Doctors | Strategies to modify the patient-doctor engagement |
|---|---|
| Awareness of SD and priority setting | Enhancing reflection and self-awareness[51] can facilitate development of intuitive decision-making skills and remind the doctor to keep an open mind. They also facilitate knowing oneself and why one tends to pay attention to certain things and to identify what knowledge is lacking. More importantly it may develop the awareness of putting patients first (patient centredness).<br><br>Burnout or fatigue decreases awareness. Mindfulness training and improving resilience is crucial to maintain clinical alertness.[52,53]<br><br>Ensure that the doctors are all informed about SD risks and the biopsychosocial implications thereof by offering regular in service training or continuous professional development. The improved level of knowledge will increase awareness. |
| Knowledge and skill to deal with SD | Sexual health is an integral part of life and doctors must acquire the necessary knowledge:<br>- This should be covered in medical schools during undergraduate years[54] and in continuous medical education after they have qualified.<br>- They can join organisations focussing on sexology to improve their knowledge: The Southern African Sexual Health Association (SASHA), the World Association of Sexual Health (WAS), the International Society for Sexual Medicine (ISSM), and others.<br>- Self-empowerment by reading scholarly journals – articles giving examples of a comprehensive psychosexual history include those by Goodwach[55], Andrews[56], and Kingsberg[57].<br><br>Skill: Also see communication skills<br>Specific SHT skills: The initiation of the discussion on sexual health is the most challenging. A general statement that links SD with an illness for the patient expresses the doctor's willingness to discuss SD and if the patient responds to it, it confirms the appropriateness to deal with it in the consultation.[54–56] |

| | |
|---|---|
| Clinical reasoning | Clinical reasoning starts with communication skills to elicit patients' problems[58], followed by inductive and deductive reasoning.[59] When intuitive experiential or affective thinking moderates analytical deliberative thinking the doctor tends to undertreat or underestimate the situation, which may occur in SHT.[60,61]<br><br>To address this, anticipatory supervision[62] can be used, where a senior doctor interacts with a junior team member to enhance quality of professional service and guide thinking and reasoning.<br><br>Other ways to improve clinical reasoning are preceptors[63], clinical Sudoku[64] and exercises to improve pattern recognition, hypothesis forming and expand differential diagnosis lists.[65] |
| **A - Doctors** | **Strategies to modify the patient-doctor engagement** |
| Holistic practice | Biopsychosocial practice is the key to holistic practice and contributes to more empathetic care.[66] Sexual health concerns will be included in a routine consultation if the doctor has empathy for the patient's illness experiences and practices effective holistic care to provide quality of life care.[54]<br><br>The opening lines of communication and use of inclusive language suggest a level of cultural competency and a holistic approach.[67] Socio-linguistics also form part of holistic practice which increases the need for professional interpreters[68]. The use of a nurse often leads to an assumption that there is an understanding of the holistic context and that the nurse will inform the doctor; the consequence may be that crucial questions are not raised.<br><br>Cultural awareness workshops do not seem to improve this[69], therefore a more direct approach is required. Simulation-based integrative and holistic teaching using simulated patients and real patient scenarios have been shown to be successful.[70] |
| Poor attitude | Professionalism dictates that a patient is treated with respect and is part of the ethical guidelines of the professional registering body of medical practicitioners.[71]<br><br>Preserving dignity and respect are part of the Batho Pele (People First) service standards of the South African Public Service too.[72]<br><br>Poor attitudes must not? be sanctioned by employers. |
| Good communication skills | During tertiary training, experiential learning can improve interviewing skills for medical students.[73] The role of preceptors can also be considered to improve communication skills.<br><br>To achieve expertise, doctors can consider practice-based and simulation-based learning where they practice the skill of SHT and role-play under controlled circumstances and receive constructive feedback.[58,74] |

| | |
|---|---|
| | Mentorship or coaching and workshops can also help in improving the communication skills of doctors.[58]<br><br>Assertiveness training is also beneficial to improve communication.[75] |
| **B - Patients** | **Strategies to modify the patient-doctor engagement** |
| Assertiveness nudge | Communication training improves patient assertiveness and participation in consultations.[76]<br><br>Moderate patient assertiveness training has been found to change provider behaviour.[77]<br><br>Patient self-advocacy and self-compassion improve the doctor-patient relationship.[78] |
| Information on sexual dysfunction | Visual aids and sexual health information material can improve health literacy.[79,80] Patient information leaflets to facilitate health education have proved more effective than websites, social media platforms such as Facebook and mobile phone applications in Australia.[81] |
| **C - System** | **Strategies to modify the patient-doctor engagement** |
| Seating arrangements | Doctors can change this in their consultation rooms. Patient satisfaction and patient enablement improve if the seating arrangements change.[82,83] |
| Privacy | Interruptions during the consultation delay task completion and can lead to errors in management.[84]<br>Doctors must also be aware that the lack of privacy will inhibit SHT[23], and they must manage it. |
| Administration (files) and availability of laboratory results | Poor record keeping is one of the biggest challenges in the South African health care service and the lack of leadership to address it contributes to these challenges.[85]<br><br>District health must be strengthened by family physician involvement[86] and the administration challenges must be addressed to improve service delivery and quality care. |
| Implement service standards | Revive the Batho Pele (People First) service standards.[72]<br><br>Patients must be consulted on their needs with courtesy. |

The emerging theory of dynamic interaction between a patient and doctor focuses primarily on the doctor. As the doctor has an advocacy role as well as a governance responsibility, the burden of change will be primarily on the doctor. Because of their push factors for dynamic interaction and their prominence as change agents, doctors can initiate change, by focusing on core principles. There is a golden thread that runs through the study research findings exposing a fundamental flaw in primary care routine consultations. A real interest in the patient (patient-centred engagement) and good communication can facilitate dynamic interaction in the consultation (Table 10.3). A respectful and warm patient approach to understand the unique context, preferences, needs and values of the patient, allowing the patient co-responsibility by actively involving the patient in the consultation and making them a part of the decision-making process, will improve the patient-doctor interaction. Achieving patient-centredness needs optimal communication. Communication is not only a problem in primary care in the North West Province, but also a global challenge. It has been shown in a systematic review that poor communication during consultations contributed to errors and litigation.[87]

**Table 10.3: Basic Communication and Patient Centeredness Strategies that Doctors can use to Facilitate Dynamic Interaction**

| **A - Doctors** | **Basic intervention strategies that can have immediate effects** |
|---|---|
| Awareness of SD | **Ask the patient** |
| Priority setting | Is **it important to the patient**? |
| Knowledge and skill to deal with SD | If the doctor does not know, **ask the patient** if and how it affects them?<br>**Ask** who in the community works with SD patients and refer. |
| Clinical reasoning | If the above has been done, the doctor will not have to think about SD or apply clinical reasoning to consider it as a possible diagnosis. |
| Holistic practice | **Ask** the patient how it affects life, family, work, and spirituality. |
| Poor attitude | **Communication** can change the perception that doctors have poor attitudes. |
| Good communication skills | The key to all these challenges – **"Just ask".**[88] |
| **B Patients** | **Basic intervention strategies that can have immediate effects** |
| Assertiveness nudge | Doctors must show a willingness to discuss sensitive topics by **communicating** their willingness and listening to patients. |
| **C System** | **Basic intervention strategies that can have immediate effects** |
| Seating arrangements | Doctors can change this in their consultation rooms. |
| Privacy | Doctors can **communicate** to colleagues that they expect privacy during the consultation. |
| Administration (files) and availability of laboratory results | **Communication** to managers of dissatisfaction and suggest solutions. |

| D Education and training | Basic intervention strategies that can have immediate effects |
|---|---|
| Train the trainer | The Division of Family Medicine can **communicate** to various educators and trainers in the district the need to screen and offer training workshops. |

## 10.4 SUMMARY

This chapter provided an overview of the general findings of this study as well as described key findings through the lens of the Social Construction of Reality. The core findings of the study were illustrated, namely the disconnect in the patient-doctor engagement due to an impaired patient-doctor-system. A dynamic interaction theory emerged as a change theory highlighting modifiable elements of the patient-doctor engagement that must shift to balance the scale towards not only sexual history taking, but overall optimal consultations in primary care. As professionals, doctors have a tremendous amount of information at hand; they cannot know it all, but they can ask if they do not know.

Chapter 11 will outline the study conclusion and recommendations.

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# CHAPTER 11

## 11. CONCLUSION AND RECOMMENDATIONS

The previous chapters dealt with a comprehensive literature review on SHT, and the prevalence of SD in patients living with chronic disease and the aims and objectives of this study. It also described the methods used to achieve these objectives, including the ethical considerations and limitations to this study. A discussion section followed explaining the emerging theory of Dynamic Interaction. To follow is the conclusion and recommendations.

### 11.1 CONCLUSION

This research was innovative in both its approach of observing consultations in primary care and the volume of consultations involved, as there has not been a similar study in South Africa or globally. This study explored 151 observed routine consultations in primary care to determine optimal interaction strategies to improve SHT for ED. Instead of finding good examples of SHT, the researcher found the opposite. This study showed that poor patient-doctor-system interaction led to a disconnect between patients and doctors, which contributed to sub-standard consultations. Not only was SHT not done, and patients' SD symptoms not addressed, comprehensive patient care was compromised. Although sexual history taking was the key indicator, the multiple realities of patients, doctors, and the Health care Service, had implications for all consultations and patient care.

In the context of a system that does not support the doctors' daily practice needs and an increasing influx of patients, the reality that they experienced was bleak. Increasing service delivery demands, poor administration and a lack of resources exacerbated time constraints. Patients, on the other hand, have no choice but to passively accept the services they received from paternalistic doctors renewing scripts without addressing illness. Patient-doctor communication was generally poor and mostly instructive in nature. Most doctors displayed a lack of professionalism by not greeting patients and not protecting the patients' dignity or best interest. In addition to this, they deprived patients of good quality consultations and failed address their illness and wellbeing. Doctors need to reflect on their practice habits to improve their meta-cognitive reasoning skills and acquire the knowledge they claim is preventing them from engaging with patients on SD. These doctors did not consider SD in a high-risk population as a priority but also failed to ask the patient if their sexual health or any related issues were a concern to them. Interestingly, despite the prevalence of HIV in South Africa, HIV-risk was also not explored. Apart from two doctors, doctors in general did not display a willingness to engage with a patient on anything but their own agenda, yet they still, expected patients to share sensitive information i.e., SD, with them. Direct interaction with the patients was minimal. It seemed as if the doctors in these recorded consultations were caught in a rut that was devoid

of professional fulfilment, and the patients were consulting them because they had no other options to choose from.

The pivotal concern in this research was the patient-doctor engagement. This interaction was compromised by poor communication, the lack of patient-centred care and a system not optimizing the support for the service delivery, which resulted in a disconnect and imbalance in power. If the patient-doctor interaction does not change, the consultation quality will not change, and poor health care will continue, which will be to the detriment of the patients' quality of life. The emerging theory of change is the theory of dynamic interaction, where communication and person-centeredness are keys to modify the patient-doctor-system interaction. Although numerous interventions were suggested and can be implemented, most of the challenges this research exposed can be addressed by doctors simply starting to communicate: asking about the patient's perception, asking the patient what his/her priority is, asking the system for better administrative support.

Sexual functioning and intimacy are an important part of life, and in my career, I, as the researcher, have worked with individuals experiencing severe emotional pain and extreme relational stress because of SD. This research was important for me to create an awareness of the enormity of the SD problem for some patients and to confirm my perceptions and observations that doctors fail to talk about SD. In the process, I discovered that it was more than unwilling and unskilled doctors, but it was also an unsupportive system and non-assertive patients, which resulted in poor doctor-patient engagement. The key findings also raised concern for the overall quality of consultations in primary care. SHT is like the canary in the coal mine warning those involved in managing health care in South Africa that the atmosphere is not conducive to ensuring the optimal health of our population.

In conclusion, it is important to note that doctors do not have to know everything, and they do not have to decide alone what are the priorities when the patient presents in health care. If they can look at the person in front of them and know that the person is more than just a patient, but s/he is the expert on his/her illness waiting to be asked about their experiences, beliefs and expectations, progress will be seen. Dynamic interaction during the consultation can change not only the medical care a patient receives but also the fulfilment the doctor experiences at the end of a working day, from making a real difference in patients' lives.

## 11.2 RECOMMENDATIONS

Some additional research that would further this grounded theory research includes the following:

- Knowledge and perceptions about Sexual Medicine of students and lecturers in undergraduate programs in South Africa.
- Interview patients living with SD to understand their help-seeking strategies better. Knowing if and where they seek help for sexual challenges, will shed light on their health beliefs regarding SD and support strategies to empower the patient to be more assertive in the consultation.
- Interview doctors to understand their socio-cultural frame of reference influencing their perception of sexual health and how their personal sexual agendas influence their reasoning and practice. This is important because personal prejudice or even personal sexual concerns and challenges could be sub-consciously transferred into the consultation contributing to not considering SD as a challenge for the patient. These factors shape the patient to fit the mould the doctor is comfortable with, and if known, strategies can be developed to deal with it.
- Identify research sites to implement some of the strategies to evaluate the proposed Theory of Dynamic Interaction and its outcomes.

The findings should be used for curriculum enhancement by starting immediately advocating for better coverage of sexual functioning in the undergraduate medical curriculum, as well as in the ongoing training of primary care doctors. It must be taught as a routine history and not as it is at present, where it is mainly discussed in the specialist disciplines and rotations.

Sexual functioning must be included in national guidelines and policies on health screening and chronic illness management.

The researcher wants to reach out to the individuals on the street, making them aware that they can and must talk to their doctors about any health of quality-of-life complaint and can demand a responsive doctor engaging with them. Being involved in the training of Family Medicine registrars, the researcher can promote sexual health in that curriculum with immediate effect. A Train the Trainer program must be developed and implemented.

# APPENDIX 1

- **AIMS AND OBJECTIVES OF RESEARCH PROPOSAL LINKED WITH THE ARTICLE REPRESENTING THE SPECIFIC DATA**

Aims and objectives of research proposal linked to articles. To describe the clinical consultation process between a patient living with chronic disease and the doctor with specific focus on sexual history taking in primary health care settings in Dr Kenneth Kaunda Health District.

**Objectives**

- To record and analyse clinical consultations to describe:
  - System or setting related factors that can influence consultation outcomes.
  - The scope and quality of the consultation using applicable sections of the Workplace Based assessment (WPBA) competence framework of the Royal College of General Practitioners (RCGP).
  - The scope and quality of the sexual history taking during the consultation compared to a theoretical Sexual History Taking Algorithm.
  - The soft communication skills displayed by the doctor e.g., listening, reflection, clarification etc.
  - Verbal cues regarding sexual dysfunction and/or dysfunction communicated during the consultation.
- To record and analyse Non-verbal interaction between doctor and patient.???
- To determine the nature and the number of successful consultations which will enhance disclosure of sexual wellbeing.
- To review the records of consulted patients for clinical indicators or risk factors of possible sexual dysfunction as part of the triangulation of information for validation
- To determine if each patient consulted has a form of sexual dysfunction, which should have been addressed during the consultation as part of the triangulation of information for validation.
- To determine the association between patients with sexual dysfunction and the successful consultations that can enhance disclosure of sexual problems.
- To determine perceptions of doctors and patients on sexual history taking.
- To develop a theory on the clinical consultation process and disclosure of sexual health problems.
- To have a debrief session with a group of doctors who participated in the consultation recording sessions to inform them on the focus of the research and get their point of view on the recorded consultations.
- To describe the non-verbal interaction between doctor and patient.
- To determine the factors in consultations which will enhance disclosure of sexual wellbeing.

- To review the records of consulted patients for clinical indicators or risk factors of possible sexual dysfunction as part of the triangulation of information for validation

### 2.9.1 Study Two: Aim and Objectives

To determine the doctor's clinical awareness of sexual health risks in chronic disease based on a diagnostic and management perception of two hypothetical case studies in North West province.

- To describe the doctors' demographic characteristics.
- To determine the doctors' diagnostic perception and management of two hypothetical case studies.
- To compare the demographic information and vignette outcomes.
- To supplement information of Study One to develop a theory regarding the consultation and successful disclosure of sexual health issues.

**Table 3: Study Aims, Objectives Reflected in which Publication**

| Objectives | Achieved/Not | Comments |
|---|---|---|
| 1. To record and analyse clinical consultations to describe: | | |
| i. System or setting related factors that can influence consultation outcomes. | Achieved | Reflected in Publication Two |
| ii. The scope and quality of the consultation using applicable sections of the Work Place Based assessment (WPBA) competence framework of the Royal College of General Practitioners (RCGP). | Achieved | Reflected in Publication One |
| iii. The scope and quality of the sexual history taking during the consultation compared to a theoretical Sexual History Taking Algorithm. | Achieved | Reflected in Publication One |
| iv. The soft communication skills displayed by the doctor e.g., listening, reflection, clarification etc. | Achieved | Reflected in Publication Two |
| v. Verbal cues regarding sexual dysfunction and/or dysfunction communicated during the consultation. | Achieved | Reflected in Publication two |
| vi. Non-verbal interaction between doctor and patient. | Achieved | Reflected in Publication Two |
| 2. To determine the nature and the number of successful consultations which will enhance disclosure of sexual wellbeing. | Achieved | Reflected in Publication One |
| 3. To review the records of consulted patients for clinical indicators or risk factors of possible sexual dysfunction as part of the triangulation of information for validation | Not achieved | Done, but results had up to 77% missing data in files and was not meaningful to use. |
| 4. To determine if each patient consulted has a form of sexual dysfunction, which should have been addressed during the consultation as part of the triangulation of information for validation. | Achieved | Reflected in Publication Three |

| | | |
|---|---|---|
| 5. To determine perceptions of doctors and patients on sexual history taking. | Achieved | Reflected in Publication Four |
| 5. To determine the association between patients with sexual dysfunction and the successful consultations that can enhance disclosure of sexual problems. | Achieved | No statistical associations<br>Reflected in Publication One |
| 6. To develop a theory on the clinical consultation process and disclosure of sexual health problems. | Achieved | Divided block |
| 7. To have a debrief session with a group of doctors who participated in the consultation recording sessions. | Achieved | Reflected in Publication Six |

**Table 4: Study Two: Aims and Objectives Reflected in Articles**

| **Objectives** | **Achieved/ not** | **Comments** |
|---|---|---|
| To describe the doctors' demographic characteristics obtained in study one. | Achieved | Reflected in Publication Three, Five and Six |
| To determine the doctors' diagnostic perception and management of two hypothetical case studies. | Achieved | Reflected in Publication Five |
| To compare the demographic information and vignette outcomes. | Achieved | Reflected in Publication Five |
| To supplement information of Study One to develop a theory regarding the consultation and successful disclosure of sexual health issues. | Achieved | Divided block |

# APPENDIX 2

- **APPROVED RESEARCH PROPOSAL**

**DOCTORS' CONSULTATION SKILLS WITH REGARD TO PATIENTS' SEXUAL HEALTH IN PRIMARY HEALTH CARE SETTINGS IN NORTH WEST PROVINCE**

1. **INTRODUCTORY BACKGROUND**

When you listen to social conversations and follow lay media, sexual wellbeing is a synonym for the absence of sexually transmitted infections, normal reproduction, and knowledge that the genitalia (mostly male) are in good working order. Talking about sex, sexuality and sexual dysfunction seems to be a total social taboo. These social and cultural perceptions about sexuality are carried into the consulting rooms and often complicate discussions of sexual matters in health care.

Age, disease and/or medication bring the patient and the doctor together in a clinical consultation where both have private and personal perceptions about sexual health. For preventative medicine and addressing complications of chronic disease, sexual functioning forms an integral part of the clinical consultation. Anecdotally, medical practitioners claim they do address sexual functioning when the indication presents, but the researcher will indicate in literature to follow, that this perception may not be true and sexual dysfunction is often not managed to the detriment of the patient's psychosocial wellbeing. A systematic review by Campbell and Stein of South African research on sexual dysfunction, indicated that only five articles on ejaculatory and erectile dysfunction were published since 1970, despite the high prevalence thereof.[1] They also refer to other research conclusions mentioning patients' poor help-seeking behaviour as well as lack of opportunity for a patient to disclose sexual dysfunction to a doctor.[1] The question which arises is what actually happens during the clinical consultation between the doctor and the patient; what leads to clinical inertia when it comes to managing sexual dysfunction and does the global prevalence and need for disclosure of sexual dysfunction during a consultation reflects the South African reality?

**Prevalence of sexual dysfunction in health care**

Sexual dysfunction is a common phenomenon associate with age and disease worldwide. The Massachusetts Male Aging Study represented a survey of 1709 men between 40 and 70 years. They concluded that 52% of these men reported erectile dysfunction.[2] Shifren *et al*[3] also indicated in their study of 31 581 female participants (aged between 18 and 102 years), that 44% experienced clinical sexual dysfunction and 22% sexually related distress in the U.S.A. Sexual disorders are associated with age and numerous conditions ranging from chronic disease (diabetes and hypertension is significantly associated with sexual

dysfunction), age, pharmacological management of disease and co-morbidities, sleep disorders to other factors such as social problems and socio-economic status.[4-14] Sexual health is an essential part of biopsychosocial well-being and one can conclude that health care professionals should identify and manage it when providing health care services.[15,16]

If we accept that sexual health is an essential part of biopsychosocial wellbeing, regular screening of sexual dysfunction is justified. Two surveys in America reported on patient disclosure rates. Kingsberg reported that during a period of three years, physicians inquired about sexual concerns in only 14% of the patient-contacts with patients ranging between 40 and 80 years.[17] Lewis *et al*[18] believed a fifth of patients seek assistance from health care providers and only 9% are asked about the sexual health. Globally and in South Africa research indicate that patients' needs about sexual health or sexual dysfunction were often unmet, negated, ignored, or dismissed without full evaluation.[19-32]

**Disclosure of sexual dysfunction in health care**

The question comes to mind then whether patients want to discuss these sexual issues with their health care provider. Meystre-Agustoni *et al*[33] reported in a study of a culturally diverse population (n=1452) in Lausanne, Switzerland, that 90.9% of the respondents indicated their wish for the physician to ask them about their sexual history or practices to receive advice. Researchers concluded that perceived or real health provider and patient barriers can compromise the screening for and management of sexual dysfunction during a clinical consultation.[19,25,33] These barriers are well described, and they range from personal preferences and cultural perceptions to non-effective communication and consultation skills, and a lack of knowledge of sexual challenges and the management thereof. [14, 19,25,32,33]

**The clinical consultation and communication skills**

Health professionals however can develop skills and expand their knowledge to cross these barriers and facilitate discussion on the sexual dysfunction of their patients, should the patient wish to disclose and address it. Disclosure issues can be bridged by good communication and observation skills, e.g. listening, reflecting on verbal and nonverbal messages, practicing the ability to spot that something is not said, thus picking up on the speech censoring mechanism; hesitations, omissions, and/or vagueness etc. [34] The doctor can also assist the patient to disclose sexual problems by asking non-threatening questions or "help the patient to find a safe way to express it".[35] Basson stated: "There is a need for evidence-based recommendations to optimize the assessment of the multiple factors affecting sexual health when one or both partners are ill"[8].

**Rationale for the study and the research question**

As discussed, researchers suggested that the clinician is most likely aware of sexual problems and ignores it or the patient fails to ask for help, or if the patient discloses does not address it. Regular screening in patients at risk of sexual problems seems not to happen. This forms the platform for the omission of the diagnosis and/or management of sexual problems in health care settings. From a research perspective, nothing is known about the clinical consultation and disclosure of sexual health issues as observed and analysed by a researcher. The researcher had struggled five years to get supervisors who were willing to take sensitive research like this, despite agreement on the importance of such a study. As social worker in health care, the researcher dealt with the consequences of the omission to discuss sexual issues resulting in conflict, resentment, divorce and even violence.

The researcher thus wants to know, what are the optimal consultation process and communication skills, as well as role-player characteristics, required to improve disclosure of sexual health issues during a patient-doctor encounter in primary health care settings in North West province? What is the prevalence of sexual dysfunction of patients consulting primary care doctors and what are their expectations to address sexual problems during a clinical consultation?

This research will not only suggest trends not elicited before in North West province or even Africa, but also contribute to the development of a theory about the optimal or successful disclosure of sensitive matter such as sexual health, during clinical consultation process.

## 2. AIM AND OBJECTIVES

This study aims to describe the consultation process and associated factors and skills required for successful disclosure of sexual health issues during a clinical encounter with a doctor in primary health care settings in North West province. To achieve this, study one to three will have individual aims and objectives.

For more detail, refer to the research flow chart and Appendix A - Research objectives and methodology

### 2.1 Study One

To define the clinical consultation process between a patient living with chronic disease and the doctor with specific focus on sexual history taking in primary health care settings in Dr Kenneth Kaunda Health District (Dr. Kenneth Kaunda Health District health district).

1. To record and analyse clinical consultations to describe:

i. System or setting related factors that can influence consultation outcomes.
ii. The scope and quality of the consultation using applicable sections of the Workplace Based assessment (WPBA) competence framework of the Royal College of General Practitioners (RCGP).
iii. The scope and quality of the sexual history taking during the consultation compared to a theoretical Sexual History Taking Algorithm.
iv. The soft communication skills displayed by the doctor e.g., listening, reflection, clarification etc.
v. Verbal cues regarding sexual dysfunction and/or dysfunction communicated during the consultation.
vi. Non-verbal interaction between doctor and patient.

2. To determine and the number of successful consultations which will enhance disclosure of sexual wellbeing.
3. To review the records of consulted patients for clinical indicators or risk factors of possible sexual dysfunction as part of the triangulation of information for validation
4. To determine if each patient consulted has a form of sexual dysfunction which should have been addressed during the consultation as part of the triangulation of information for validation.
5. To determine the association between patients with sexual dysfunction and the successful consultations that can enhance disclosure of sexual problems.
6. To develop a theory on the clinical consultation process and disclosure of sexual health problems.
7. To have a debrief session with a group of doctors who participated in the consultation recording sessions.

### 2.2 **Study Two**

To determine the doctor's clinical awareness of sexual health risks in chronic disease based on a diagnostic and management perception of two hypothetical case studies in North West province.

1. To describe the doctors' demographic characteristics obtained in study one.
2. To determine the doctors' diagnostic perception and management of two hypothetical case studies.
3. To compare the demographic information and vignette outcomes.
4. To supplement information of Study One to develop a theory regarding the consultation and successful disclosure of sexual health issues.

### 2.4 **The Research Flowchart**

The research flowchart provides an overview of the research proposal.


This study aims to describe the optimal consultation process and associated factors and skills required to improve disclosure of sexual health issues during a clinical encounter with a doctor in primary health care settings in North West province .
Study one (Main study)
Study Two (Supplement information)
To define the clinical consultation process between a patient living with chronic disease and the doctor with specific focus on sexual history taking in primary health care settings in Dr Kenneth Kaunda Health District (Dr KK Health District).
To determine the doctor's clinical awareness of sexual health risks in chronic disease based on a diagnostic and management perception of two hypothetical case studies in North West province.
A grounded theory research design where the unit of analysis is the consultation, as well as chart review, patient and doctor questionnaires for triangulation.
Cross sectional design using a qualitative tool namely vignettes depicting two hypothetical patient scenarios and a demographic questionnaire for doctors.
The sample size is 150 clinical consultations with adult patients living with hypertension and/or diabetes in Dr KK Health District.
All the doctors working in Dr KK health district– interns, community service doctors, MO, SMO, Registrars.
Consent from WITS HREC, North West Province and Dr KK Health district will be obtained.
Consent from WITS HREC, North West Province and Dr KK health district, will be obtained.
Consent from individual participants will be obtained – this include doctors and patients in all three studies. The researcher will identify and approach the doctors and obtain their consent. The following will be taken into account with the recruitment and research with regard to patients:
In the selection process of the participants, confidentiality and dignity will be protected. The nurse doing the vital signs will identify the patient qualifying to participate in this research. The researcher will approach the patient in the privacy of a consultation room or pre-prepared private area to participate. The research will be explained and the consent will be obtained; Questionnaires will also be completed in this safe space and the patient will be assisted not to lose their place in the queue; The consultation recordings will be done at such an angle that behaviour can be observed, and it will only be used to describe the consultation.
No visual or audio data will be used for any other purpose. The results of the consultation however will be used for publication and presentations at conferences and for teaching material.
To describe and explain the dynamics of the clinical consultations, As the open categories emerge, integration can happen and/or new categories can be formed. Notes in the form of memo's contribute the theory forming which will hold the categories and emerging theories together. The researcher will use a code book to keep track of common codes and categories, but not be limited to it, namely soft communication such as listening for patient or doctor cues, clarification, reflection, confrontation and negotiating a management plan. The qualitative nature of the verbal cues during the consultation will be described and thematically grouped. Verbatim examples of cues and the way patient may express sexual dysfunction or doctors elicit sexual dysfunction complaints will be reflected.
The non-verbal interaction between doctor and patient will be observed and described for the consultation as well as when any cue on sexual health matters arises or during sexual history taking
There is also a quantitative component where comparisons and factors contributing to successful disclosure will be analysed with descriptive and inferential statistic techniques.
Descriptive statistics in the form of frequencies, means, and mode will be calculated. It will be used to describe the following vignette outcomes:
Assess and manage the patient according to National guidelines.
Consider sexual dysfunction as a possible complication. Consider exploring sexual health or mentioning that s/he would like more information in this regard. Manage or address some of the other aspect of sexual health. The demographic details of the doctors, such as age, marital status, experience as doctor, training in sexual health and willingness to explore sexual health problems during the consultation. Statistically frequencies, means, and mode will be calculated. The vignette's coded outcomes will be compared with demographic details using Pearson coefficient /Chi$^2$ test or Fischer exact test where the p value <0.05 to be statistically significant.
The combined results will be used to develop a baseline theory on successful disclosure of sexual health during the clinical consultation in order to enhance biopsychosocial wellbeing of patients living with diabetes and/or hypertension. Results will be published in the form of independent articles. The theory will be tested in a post doctoral study.

## 3. METHODS

### 3.1 Study One

#### 3.1.1 Study design

Study one is a grounded theory research design where the unit of analysis is the consultation encounter and not merely the patients or doctors.[36] Mixed methodology will be used to determine, describe, and explain various aspects of this study. The consultation analysis demands a qualitative process, but the outcomes can be calculated and associated with other variables in a quantitative manner.

#### 3.1.2 Participants

Consultations between doctors and patients living with diabetes and hypertension will be recorded, analysed, and described (see Appendix A Study one). The researcher decided on diabetic and hypertensive patients because one would expect that sexual matters will be discussed with these patients since sexual dysfunction is prevalent with both conditions – either caused by age, disease and/or medication.[4-15] Exclusion criteria: Patients younger than 18 years and patients who are too sick to complete a questionnaire. Patients with HIV, because HIV counselling is standard management by either the lay counsellor or health care practitioner and thus is communication sensitivity bridged by existing clinical management protocols. Recruitment of patients discussed in Appendix A.

#### 3.1.3 Site of research

The research will take place in the four sub districts of Dr Kenneth Kaunda Health District (Dr. Kenneth Kaunda Health District) North West, namely:

- Ventersdorp sub-district: Ventersdorp hospital & Research site 03clinic.
- Maqwassie sub-district: Tswaloleng clinic & Leeudoringstad clinic
- Matlosana sub-district: Jouberton CHC, Tsepang CHC, Khuma CHC and Batshabelo clinics.
- Tlokwe sub-district: Research site 06

These clinics are all open 24 hours per day and over weekends. Anecdotally working patients renew chronic medication after working hours and over week ends, which will give the researcher the opportunity to cover also that employed segment of the population.

Dr. Kenneth Kaunda Health District renders a health service to a population of 707479 new diabetes and hypertensive patients per year.

### 3.1.4 **Sampling**

Previous studies found between 14% and 20% disclosure rate of sexual problems during the consultation. [17,18] Disclosure rates thus formed a key factor in the sample size. With a sample size of 150, a two-sided 95% confidence interval, the disclosure rate, using the large sample normal approximation, will be within approximately 6% of the rate that will be calculated from the sample, assuming the disclosure rate is 15%. At that stage 18 doctors worked in Dr. Kenneth Kaunda Health District. This includes sessional and full time doctors. If 15 of these doctors will agree to participate, the researcher will need ten consultations per doctor. If the disclosure rate is also 15% in our context, the researcher may have approximately 21 interviews where they disclose sexual challenges. If after these 21 interviews, saturation point is not reached, the researcher will proceed with interview recordings till saturation point is reached. The same applies if the disclosure rate is lower than 15%. Interviews will be analysed till saturation point is reached.

### 3.1.5 **End points**

The following end points will be accounted for:

- System or setting related factors e.g., privacy, duration of consultation, number of patients consulted etc. that can influence consultation outcomes (Appendix C.1).
- The scope and quality of the consultation using applicable sections of the WPBA competence framework of the RCGP (Appendix C.2).
- The scope and quality of the sexual history taking during the consultation compared to a theoretical Sexual History Taking Algorithm (Appendix C.3).
- The soft communication skills displayed by the doctor e.g., listening, reflection, clarification etc. (Appendix C.2 & C.4).
- Verbal cues regarding sexual dysfunction and/or dysfunction communicated during the consultation (Appendix C.2 & C.4).
- Non-verbal interaction between doctor and patient (Appendix C.2 & C.4).
- To determine and the number of successful consultations which will enhance disclosure of sexual wellbeing (Appendix C.5).
- The vignettes from doctors and the sexual dysfunction questionnaires will form part of the triangulation method to enrich and validate the qualitative description.
- Themes from the group debriefing session with doctors depending on availability and need.

### 3.1.6 **Sources of bias**

- Personal bias: The researcher may have preconceived ideas which may limit the researcher's ability to recognise diversity in consultations. The researcher will be aware of the risk and the assistance of an expert panel will limit this bias.

- Data bias: In grounded theory it is important to pay attention also to data that will not fit the existing variables the researcher planned to analyse as it may be that exact data that can lead to a new explanation of the clinical consultation and sexual health. Awareness and open coding, categorisation and memos or field notes will limit this bias.
- Sample bias: The sample will consist of doctors who work at the Primary Health Care facilities. Due to registrar involvement at that level, they may be familiar with the researcher's field of interest. Bias will be limited by doing more than one consultation per doctor as they will fall back on their default practice. Other measures e.g., vignettes, will be used to determine common screening and management practices regarding sexual health in later phases of this study.
- Cultural or normative bias: Cultural perceptions and religious values influence the verbalization and/or expression of sexuality.
- Hawthorne effect: The reality of being part of a study and the awareness of the recording equipment may impact on congruence or disclosure of sexual challenges during the consultation.
- Recording bias: Doctors may omit documenting certain information on the patient's request, his/her personal perception of the sensitive nature of the problem as well as familiarity with a patient and his/her complaints.
- Criterion bias: The DSM V criteria for female sexual dysfunction changed and no new standardized questionnaires for DSM V have been developed yet, thus will the interpretation of the questionnaire be limited to the criteria as defined by the questionnaire.
- Cross-cultural use of standardized questionnaires: Both the male and female sexual dysfunction scales represent globally accepted clinical criteria associated with sexual dysfunction or classic subdivisions of the human sexual act, and thus may the transcultural use of the questionnaire not be a problem.
- Complexity of human sexual behaviour: Uncritical use of the questionnaires may lead to an over simplifying number representing sexual dysfunction. One must keep in mind the psychometric properties of a questionnaire versus the complexity of human sexual functioning.

### 3.1.7 **Pilot study**

A pilot study will be done with the recording of the consultations to test the recording equipment, and angles of recording, and the quality of the sound.

### 3.1.8 **Data analysis**

Please note that observations and coding will not be limited to the measuring tools as grounded theory research is based on open coding.[36] To describe and explain the dynamics

of the clinical consultations, the grounded theory approach will allow that all data be used – even if it does not seem to 'fit' the initial categories as listed in the appendices. As the open categories emerge, integration can happen and/or new categories can be formed. Notes in the form of memos contribute the theory forming which will hold the categories and emerging theories together.[36]

The researcher will use a code book to keep track of common codes and categories, but not be limited to it, namely soft communication such as listening for patient or doctor cues, clarification, reflection, confrontation and negotiating a management plan. The qualitative nature of the verbal cues during the consultation will be described and thematically grouped. Verbatim examples of cues and the way patient may express sexual dysfunction or doctors elicit sexual dysfunction complaints will be reflected.

The non-verbal interaction between doctor and patient will be observed and described for the consultation as well as when any cue on sexual health matters arises or during sexual history taking.

The Workplace Based Assessment (WPBA) competence framework of the Royal College of General Practitioners (RCGP) will be used as a structured overview tool for selected competencies of the consultation. This is the tool of choice as the RCGP collaborates at this stage with the College for Family Physicians of South Africa (FCFP(SA)) to train for and implement workplace based assessments in South Africa. The tool defined the consultation concepts clearly in terms of the behaviours one wishes to see in a good consultation.[39] It will verify observations in the open coding and to quantify the success of the consultation in terms of disclosure opportunity of sexual health problems during the consultations. The categories that will be used are: Communication and consultation skills (thus the competency in communicating with patients, and the use of recognised consultation techniques), practicing holistically (this represent the ability of the doctor to operate in physical, psychological, socio-economic and cultural dimensions, taking into account feelings as well as thoughts) , clinical management (the recognition and management of common medical conditions in primary care), and maintaining an ethical approach to practice (ethical practice with integrity and respect for diversity). The consultation will be considered successful if it complies with the four categories and its well described subheadings and allowed disclosure of sexual health issues. This tool will underline the descriptive aspects of the consultation, but also serve as the basis as a research instrument to quantify success of the consultation. The categories will be coded from one to four to give it a numerical value. The researcher will use these category scores or numbers independently or the sum of the codes to indicate a successful consultation or not. The categories are Insufficient evidence (Code 1), Needs further

development (code 2), Competent (Code 3) and Excellent (code 4). The consultation success will be rated from four to 16 – where four will be insufficient evidence of success and 16 competency enhancing disclosure of sexual well-being. The researcher added a comment section to use as field notes and indicate skills to be described. The consultation will then be labelled to conclude a yes (Code 2) or no (code 1) consultation depending on disclosure opportunity for sexual wellbeing. The quality of the sexual history taking process will be described and compared against an ideal theoretical model. This sheet will also allow the researcher to document the duration of the consultation in minutes as a system related factor. Qualitative research is often criticized as unreliable and therefor the researcher will use two methods to improve its trustworthiness and repeatability namely:

- Data triangulation (see objective two and three): Both a chart review and validated questionnaire outcomes will be used to triangulate the findings of the consultation.[40,41]
- Investigator triangulation: A panel of experts consisting of a family physician (one has been trained on the use of the WPBA) and a sexologist will review a sample of the consultations, using the same criteria for analysis. This sample will be 10% of the original sample and mimic a moderation process. They will observe the recording and then moderate the observations made by the researcher. If we find that this 10% sample has a 70% to 80% similarity, the researcher will conclude that the observations are trustworthy.

Descriptive statistics will be conducted using SPSS software for the analysis of the sexual dysfunction variables. For comparisons between variables and consultation outcomes will be achieved using Pearson coefficient where the p value <0.05 is statistically significant. A theoretical based demographic[14,17,19,25,32,33] and biographic questionnaire[4-15] (Appendix C6 & C.7) consists of the following variables: Familiarity with clinic staff; first language; age; sex; education; marital status and duration with partner; education level; quality of relationship with partner and clinician; perception about sexuality as sensitive topic; the wish to discuss sexual problems; factors that will either facilitate of inhibit discussions of sexual nature; presenting complaint; vital signs; chronic disease/co-morbid disease; class of prescription medication the patient use. The demographic questionnaire for the doctors (Appendix C.8) covers the following variables: Cultural back ground, marital status, date qualified, training in sexual health, the ability to talk about sexual health and who must initiate discussion about sexual health.[17,19,25,32,33] The patient will also complete a validated sexual dysfunction questionnaire.[40,41] (For female dysfunction the Female Sexual Function Index (FSFI)[40,41] as Appendix C.9 and International Index of Erectile Function (IIEF) [40,41,43] as Appendix C.10 for males, as well as the scoring algorithm Appendix C.11) covering the following six domains for women (desire, arousal, lubrication, orgasm, satisfaction and pain) and for males, sexual

desire; erectile function; orgasmic function; intercourse, and overall satisfaction. These are the instruments of choice as the two questionnaires are validated standardized instruments used globally and at present the most reliable instruments for sexual dysfunction available to researchers.[40,41,43] The domains are similarly defined as the clinical domains statistically identified by the DSM-IV TR. To develop a theory, certain patterns in association with certain demographic detail must be identified. Therefor the doctors will be coded to statistically link his /her demographic data with consultation outcomes.

The dependent variable will be the successful consultation that allowed disclosure of sexual health issues. Various factors such as age of the patient, age of the doctor, experience of the doctor, qualifications, marital status, relational factors, and a personal desire to discuss sexual problems will form part of a logistical regression model to determine which factor contribute the most to disclosure of sexual health issues.

### 3.1.9 **Ethical considerations**

- Research approval will be obtained in the various sites and the North West Provincial Ethics committee (see Appendix B.1) The researcher will also obtain ethical clearance from the University of Witwatersrand Research Ethics Committee.
- Patients and doctors will be requested to complete consent forms (Appendix B.2).
- No patient or doctor will be identified – they will receive numbers to allow traceability of data.
- The expert panel will sign a confidentiality agreement not to disclose any information that may identify a patient or doctor.
- It is common knowledge that sexual violence in South Africa has a high prevalence. The research assistants and panel of experts will be briefed on the specific sexual content of the questionnaire. If they are survivors of sexual violence or have value conflicts with the nature of the research, they can withdraw from the study. The same applies to participants. In the consultation study, the participants (both doctors and patients) will be blinded for the specific nature of the research, but they have the right to withdraw if they do not feel comfortable to participate.
- In the selection process of the participants, confidentiality and dignity will be protected. The nurse doing the vital signs will identify and refer the patient living with diabetes and/or hypertension and the researcher will approach the patient in the privacy of a consultation room or pre-prepared private area to participate. The research will be explained, and the consent will be obtained. Questionnaires will also be completed in this safe space and the patient will be assisted not to lose their place in the queue.
- Two research assistants will be trained to assist during the interviewing process to direct patients, hand out and receive completed questionnaires.

- The consultation recordings will be done at such an angle that behaviour can be observed, and it will only be used to describe the consultation. No visual or audio data will be used for any other purpose.
- The results of the consultation however will be used for publication and presentations at conferences and for teaching material.
- The researcher will manage the data and keep it safe. This data will be stored for five years if not published and two years if published. After that the recordings of the consultations and the questionnaires will be destroyed.
- The researcher obtained permission to use the sexual history algorithm, the WPBA form and is awaiting permission to use the sexual dysfunction questionnaires.

## 3.2 Study Two

### 3.2.1 Study design

Cross sectional design using a qualitative tool namely vignettes[44,45] depicting two hypothetical patient scenarios, calculating demographics and vignette outcomes quantitatively.

### 3.2.2 Participants

The approximately 18 doctors consulting patients at the primary health care settings and district hospitals in North West. This will include interns, medical officers, senior medical officers, specialists, and registrars.

### 3.2.3 Site of research

The primary health care settings and district hospitals in Dr Kenneth Kaunda district in North West province. The different health districts have low numbers of medical doctors and by introducing other sub districts; a statistical inference can be drawn.

### 3.2.4 Sampling

To have an exhaustive sample, all the doctors working at the Primary Health Care settings and district hospitals in North West province will be recruited to take part in the research and everyone who consent will be requested to complete a vignette and demographic questionnaire.

### 3.2.5 End points

The vignette is considered “an elicitation tool exploring responses to hypothetical situations”[46] The expected answers to the patient scenario will be scored against the ideal recommendations of the National Guidelines for diabetes and hypertension which will form part of the memorandum. The doctor’s awareness of sexual health indicators in the form of

vignette answers that will be compared with national guidelines, will be expressed in a numerical value. This coded value will suggest whether the doctor has:

a. Assess and manage the patient according to National guidelines (No=code 1 and Yes=code 2)
b. Consider sexual dysfunction as a possible complication (No=code 1 and Yes=code 2)
c. Consider exploring sexual health or mentioning that s/he would like more information in this regard (code 3)
d. Manage or address some of the other aspect of sexual health (No=code 1 and Yes=code 2)

This demographic questionnaire (Appendix C.8) cover variables such as cultural background, marital status, date qualified, training in sexual health, the ability to talk about sexual health and who must initiate discussion about sexual health.[17,19,25,32,33]

### 3.2.6 **Sources of bias**

For comprehensive descriptions and what the researcher will do to compensate for this bias, please see Appendix A Study two.

- Cueing bias: The researcher may over or under emphasize the cues for sexual health which could influence outcome.
- Information bias: The vignette may not be comprehensive enough to give the doctor enough information to detect the cues.
- Practice bias: The vignette may not reflect clinical practice, but only clinical reasoning and knowledge.

### 3.2.7 **Pilot study**

Five Family Medicine registrars in Gauteng will be requested to complete the vignettes to ensure the quality of the vignettes and to clarify any cues that can be misinterpreted in the vignette.

### 3.2.8 **Data analysis**

Descriptive statistics will be calculated in the form of frequencies, means, and mode. It will be used to describe the following vignette outcomes:

1. Assess and manage the patient according to National guidelines for hypertension and diabetes.
2. Consider sexual dysfunction as a possible complication
3. Consider exploring sexual health or mentioning that s/he would like more information in this regard
4. Manage or address some of the other aspect of sexual health.

The demographic details of the doctors, such as age, marital status, experience as doctor, training in sexual health and willingness to explore sexual health problems during the consultation. Statistically frequencies, means, and mode will be calculated.

The vignette's coded outcomes will be compared with demographic details using Pearson coefficient/$Chi^2$ test or Fischer exact test where the p value <0.05 to be statistically significant.

### 3.2.9 Ethical considerations

- Research approval will be obtained in the various sits and the North West Provincial Ethics committee. The researcher will also obtain ethical clearance from the University of Witwatersrand Research Ethics Committee.
- Doctors will be requested to read the information sheet and complete the consent forms.
- No doctor will be identified, and vignettes and questionnaires will be completed anonymously to ensure confidentiality – they will however receive numbers to allow traceability of data.
- The researcher will manage the data and keep it safe in a locked cupboard. This data will be stored for five years if not published and two years if published. After that the vignettes and demographic questionnaires will be destroyed. The results of the consultation however will be used for publication and presentations at conferences and for teaching material.

## 4. TIMING

| Activity | Sept 2015 | Jan 2016 | Feb/Mar 2016 | Apr 2016 | Jan 2018 | Feb 2018 | Mar 2018 | Apr 2018 | May 2018 |
|---|---|---|---|---|---|---|---|---|---|
| Final protocol | | | | | | | | | |
| Assessor & Ethics Submission | | | | | | | | | |
| Data Collection | | | | | | | S1 | | |
| Data Analysis | | | | | | | | | |
| Write Up | | | | | | | | | |

| Activity | May 2018 | Jun 2018 | Jul 2018 | Aug 2018 | Sept 2018 | Oct 2018 | Nov 2018 | Dec 2018 | Jan 2019 |
|---|---|---|---|---|---|---|---|---|---|
| Data Collection | | | | S2 | S2 | | | | |
| Data Analysis | | | | | | S2 | S2 | | |
| Write Up | | | | | | | | S2 | S2 |
| Submission | | | | S2 | S2 | | | | |

*S1 is Study one

*S2 is Study two

5. **FUNDING**

The researcher will apply for available funds to assist PhD students and costs not covered by research funds, will be for the researcher's own account. The researcher has published the past three years and may apply to use RINC money.

| | Item | Number | Estimated cost |
|---|---|---|---|
| 1 | Consent forms and instruction page | 200 | 200.00 |
| 2 | Questionnaire on male sexual dysfunction | 80 | 80.00 |
| 3 | Questionnaire on female sexual dysfunction | 80 | 80.00 |
| 4 | Demographic questionnaires | 200 | 200.00 |
| 5 | Biographic/clinical questionnaires | 150 | 150.00 |
| 6 | Translation of questionnaires | - | 2500.00 |
| 7 | Data collection sheets for consultation (5 pages) | 150 | 750.00 |
| 8 | Envelopes | 300 | 240.00 |
| 9 | Pens /pencils | 150 | 250.00 |
| 10 | *Transport costs to clinics | 1000km | 3300.00 |
| 11 | Language editing | - | 3000.00 |
| 12 | Statistician | Wits | 0.00 |
| 13 | *Lunch, refreshments, and gifts/payment for the one research assistants during interviews | - | 10000.00 |
| 14 | Camera and software, as well as Dictaphones – already available in the department | - | - |
| **TOTAL** | | | **R 20750.00** |

*Transport costs and research assistants can be decreased if the researcher stays with family for the duration of the study and use only one assistant.

## 6. REPORTING

The research will be reported in the Divided Block format which means three publish ready articles. If an article has been already published at the time of submission, it will be attached as an appendix.

## 7. EXPECTED PROBLEMS

Protected time for data collection, analysis and writing up of research may be a problem.

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**Appendix A**

**Detailed research proposal:**

**STUDY ONE**

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| **Overall aim of study** | This study aims to describe the consultation process and associated factors and skills required to improve disclosure of sexual health issues during a clinical encounter with a doctor in primary health care settings in North West province. | | | |
| **Aim of study one** | To describe the clinical consultation process between a patient living with chronic disease and the doctor with specific focus on sexual history taking in primary health care settings in Dr Kenneth Kaunda Health District (Dr KK Health District). | | | |
| **Objectives** | **OBJECTIVE ONE AND TWO** | **OBJECTIVE THREE** | **OBJECTIVE FOUR** | **OBJECTIVE FIVE, SIX AND SEVEN** |
| **Objective one to four** | To record and analyse clinical consultations to describe:<br>i. System or setting related factors that can influence consultation outcomes.<br>ii. The scope and quality of the consultation using applicable sections of the WPBA competence framework of the Royal College of General Practitioners. The tool defines the consultation concepts clearly in terms of the behaviours one wishes to see in a good consultation.<br>iii. The scope and quality of the sexual history taking during the consultation compared to a theoretical Sexual History Taking Algorithm<br>iv. The soft communication skills displayed by the doctor e.g., listening, reflection, clarification etc.<br>v. Verbal cues regarding sexual dysfunction and/or dysfunction communicated during the consultation.<br>vi. Non-verbal interaction between doctor and patient.<br>To determine and record the number of successful consultations which will enhance disclosure of sexual wellbeing. | To review the records of consulted patients for clinical indicators or risk factors of possible sexual dysfunction as part of the triangulation of information for validation. | To determine if each patient consulted has a form of sexual dysfunction which should have been addressed during the consultation as part of the triangulation of information for validation. | To determine the association between patients with sexual dysfunction and the successful consultations this can enhance disclosure of sexual problems.<br>To develop a theory on the clinical consultation process and disclosure of sexual health problems<br>To have a debriefing session with the doctors who participated in the consultation recording sessions. This may be individual or in group – depending on their availability or need. |
| **Design** | A grounded theory research design where the unit of analysis is the consultation encounter and not merely the patients or doctors.[36] Mixed methodology will be used to determine, describe, and explain various aspects of this study. | As part of the triangulation for validation[37,38] of objective one a chart review will be done to determine clinical indicators and/or risk | As part of the triangulation for validation[37,38] of objective one a validated questionnaire will determine existing sexual dysfunction. | This will be the conclusion of this research design and not a design by itself. |

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| | | factors of sexual dysfunction. | | |
| **Site of study** | Clinical consultations will be recorded of patients with hypertension and/or diabetes in clinics and CHCs in Dr KK district, North West namely:<br>• Ventersdorp sub-district: Ventersdorp hospital & JB Marks clinic.<br>• Maqwassie sub-district: Tswaloleng clinic & Leeudoringstad clinic<br>• Matlosana sub-district:, Jouberton CHC, Tsepang CHC, Grace Mokhomo and Khuma clinic.<br>• Tlokwe sub-district: Boiki Thlapi These are all open 24 hours per day and over weekends. Anecdotally working patients renew chronic medication after working hours and over week ends, which will give the researcher the opportunity to cover also that segment of the population. Dr KK renders a health service to a population of 707479 new diabetes and hypertensive patients per year. The incidence of diabetes in the districts are as follows:<br>• Ventersdorp sub-district: Diabetes – 0.8 and Hypertension 14.6 per 1000 population<br>• Maqwassie sub-district: Diabetes - 3.4 and Hypertension 34.2 per 1000 population<br>• Matlosana sub-district: Diabetes – 0.7 and Hypertension 10.4 per 1000 population<br>• Tlokwe sub-district: Diabetes – 0.9 and Hypertension 13.4 per 1000 population<br>*The statistics were obtained from Dr KK Dept. of Health Statistics and represent 1 April 2013 to 31 March 2014. Dr KK in North-West also represents an optimal balance between rural, urban, and semi-urban, which for the purpose of this study will be ideal. Klerksdorp and Potchefstroom both have city status, although the inhabitants are not typical city dwellers. | The patient files of the patients whose consultations will be recorded at clinics in Dr KK district, North West, will be reviewed.<br>The sites described in Objective one will apply to all the objectives in study one. | The patients whose consultations will be recorded at clinics in Dr KK district, North West, will also be requested to complete the questionnaire.<br>Objective one will apply to all the objectives in study one. | Site remains the same.<br>Objective one will apply to all the objectives in study one. |

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| **Study population** | The study population will be the consultations between doctors and patients living with diabetes and/or hypertension consulting at Dr KK. The nature and dynamics of consultations as well as the opportunity to disclose sexual problems differ and it will be impossible to determine the number of consultations representing the study population. True to grounded theory approach the researcher will have to establish patterns in consultations and thus will focus on disclosure of sexual problems to be the starting point and not the number of consultations, patients, or doctors in the setting.<br>The researcher decided to choose diabetic and hypertensive patients. The motivation for the choice of the two disease profiles is that one would expect that sexual matters will be discussed with these patients because sexual dysfunction is prevalent with both conditions – either caused by age, disease, or medication. | Study population as defined in Objective one.<br>This will not be an independent study population or sample; it will be gathering of information from the patient's clinical record, after the recording of the consultation as part of triangulation of information. | Study population as defined in Objective one.<br>This will not be an independent study population or sample; the measuring of sexual dysfunction after the recording of the consultation will be part of triangulation of information. | Not required as this will be a statistical and theoretical exercise concluding objective one to three. |
| **Sampling** | Previous studies found that between 14% and 20% disclosure rate of sexual problems during the consultation. [17,18] Disclosure rates thus forms a key factor in the sample size. With a sample size of 150, a two-sided 95% confidence interval, the disclosure rate, using the large sample normal approximation, will be within approximately 6% of the rate that will be calculated from the sample, assuming the disclosure rate is 15%.<br>At this stage 18 doctors are working in Dr KK district. This includes sessional and full time doctors. If 15 of these doctors will agree to participate, the researcher will need ten consultations per doctor.<br>Inclusion criteria: Adult patients living with diabetes and/or hypertension and/or HIV as comorbidity, who is healthy enough to complete a questionnaire, will be recruited. | As part of the triangulation of information, the patient records of the 150 patients whose consultations will be recorded will be reviewed to verify clinical sexual dysfunction risk. | As part of the triangulation of information, the 150 patients whose consultations will be recorded, will complete a questionnaire on sexual dysfunction. | For the debriefing session, transcripts will be analysed, and themes identified. |

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| **Measuring tool** | Summary of measuring tools for every objective: To record and analyse clinical consultations to describe:<br>i. System or setting related factors that can influence consultation outcomes (Appendix C.1).<br>ii. The scope and quality of the consultation using applicable sections of the WPBA competence framework of the Royal College of General Practitioners (Appendix C.2).<br>iii. The scope and quality of the sexual history taking during the consultation compared to a theoretical Sexual History Taking Algorithm (Appendix C.3).<br>iv. The soft communication skills displayed by the doctor e.g., listening, reflection, clarification etc. (Appendix C.2 & C.4).<br>v. Verbal cues about sexual dysfunction and/or dysfunction communicated during the consultation (Appendix C.2 & C.4).<br>vi. Non-verbal interaction between doctor and patient (Appendix C.2 & C.4).<br>To determine and the number of successful consultations which will enhance disclosure of sexual wellbeing (Appendix C.5). Please note that observations and coding will not be limited to the measuring tools as grounded theory research is based on open coding. To describe and explain the dynamics of the clinical consultations, the grounded theory approach will allow that all data will be used – even if it does not seem to 'fit' the initial categories as listed in Appendices C to F. As the open categories emerge, integration can happen and/or new categories can be formed. Notes in the form of memos contribute the theory forming which will hold the categories and emerging theories together.[36] It is thus a qualitative process describing certain incidents to explain what happens during the consultation.<br>The researcher will use a code book to keep track of common codes and categories, but not be limited to it, namely soft communication such as listening for patient or doctor cues, clarification, reflection, confrontation and negotiating a management plan. The qualitative nature of the verbal cues during the | The presence of signs, symptoms, and certain medication according to literature suggest the need to screen for sexual dysfunction during the consultation. A biographic questionnaire (Appendix C.8) will also be completed by the researcher with variables such as presenting complaint; vital signs; chronic disease/co-morbid disease; class of prescription medication the patient use.[4-15] | As part of the triangulation to enhance the validity existing sexual dysfunction will be measured with questionnaires the patients will complete after the consultation in order not to sensitize them to the topic of the research.<br><br>The following two questionnaires will be used:<br>For female dysfunction the Female Sexual Function Index (FSFI)[40,41] will be used (Appendix C.9). This questionnaire is based on clinical interpretations of a principal component analysis of six domains, namely desire, arousal, lubrication, orgasm, satisfaction, and pain. The questionnaire was validated by the New England Research Institute using eight independent datasets. See validation data below when reliability and validity are discussed. The scoring algorithm is explained in Appendix C.11.<br>As the scale for females, the International Index of Erectile Function (IIEF) [40,41,43] is a validated scale for males (See data below). The domains assessed by this questionnaire are sexual desire, erectile function, orgasmic function, | |

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| | consultation will be described and thematically grouped. Verbatim examples of cues and the way patient may express sexual dysfunction or doctors elicit sexual dysfunction complaints will be reflected.<br>The non-verbal interaction between doctor and patient will be observed and described for the consultation as well as when any cue on sexual health matters arises or during sexual history taking.<br>The Work Place Based Assessment (WPBA) competence framework of the Royal College of General Practitioners will be used as a structured overview tool for selected competencies of the consultation. The researcher obtained permission to use the framework. This structured framework is used to test general practitioners' competence in 12 key areas. The researcher however wants to use it to verify observations in the open coding and to quantify the success of the consultation in terms of disclosure opportunity of sexual health problems during the consultations. The categories that will be used are: Communication and consultation skills (thus the competency in communicating with patients, and the use of recognised consultation techniques), practicing holistically (this represent the ability of the doctor to operate in physical, psychological, socio-economic, and cultural dimensions, considering feelings as well as thoughts). The consultation will be considered successful if it complies with the four categories and its well described subheadings and allowed disclosure of sexual health issues. This tool will underline the descriptive aspects of the consultation, but also serve as the basis as a research instrument to quantify success of the consultation. To ensure consistency in observations of communication and consultation skills for example, it will be rated as insufficient evidence, needs further development, sufficient and excellent.[39] The researcher coded these categories from one to four to give it a numerical value. The researcher will use these category scores or numbers independently or the sum of the codes to indicate a successful consultation or not. The categories are Insufficient | | intercourse, and overall satisfaction (Appendix C.10). The scoring algorithm is explained in Appendix C.11.<br><br>It takes between 10 and 20 minutes to complete the questionnaire. | |

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| | evidence (Code 1), Needs further development (code 2), Competent (Code 3) and Excellent (code 4). The consultation success will be rated from four to 16 – where four will be insufficient evidence of success and 16 competency enhancing disclosure of sexual well-being. The researcher added a comment section to use as field notes and indicate skills to be described. The consultation will then be labelled to conclude a yes (Code 2) or no (code 1) consultation depending on disclosure opportunity for sexual wellbeing. The researcher is not a clinician and thus the scope and quality of the history taking during the consultation will be compared to an ideal theoretical Sexual History Taking Algorithm designed by Lloyd & Bor.[42] Any attempt to elicit sexual history will be indicated on the appropriate sections of the algorithm. The quality of the sexual history taking process will be described and compared against an ideal theoretical model. This sheet will also allow the researcher to document the duration of the consultation in minutes as a system related factor.<br>A demographic questionnaire for the patient (Appendix C.6) will be completed by the participant after the recording. Variables will be selected based on literature references as possible barriers for disclosure, e.g., familiarity with clinic staff; first language; age; sex; education; marital status and duration with partner; education level; quality of relationship with partner and clinician; perception about sexuality as sensitive topic; the wish to discuss sexual problems; factors that will either facilitate of inhibit discussions of sexual nature.[14,17,19,25,32,33]<br>Similarly, will the doctor complete a demographic questionnaire after the recording of all the interviews as part of the debriefing (Appendix C.8). This demographic questionnaire will cover variables such as cultural background, marital status, date qualified, training in sexual health, the ability to talk about sexual health and who must initiate discussion about sexual health.[17,19,25,32,33] Due to the small number of doctors, it will be important to protect them from being identified | | | |

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| | however, to develop a theory, certain patterns in association with certain demographic detail must be identified. Therefor the doctors will be coded to link his /her demographic data with consultation outcomes. | | | |
| **Data collection** | Two research assistants will be trained to assist during the interviewing process to direct patients, hand out and receive and secure completed questionnaires.<br>The researcher will collect data on Wednesday to Saturday in the different settings till the number of consultations is reached. The doctors at the clinic will be informed about the study and give consent. The nurse taking the vital data of the patients, will identify and refer the patient living with diabetes and/or hypertension. The researcher will then approach the patient and recruit the patient for this study. The patient will then return to the waiting area till the doctor call the patient. Before the patient consults the doctor, the patient will receive an information sheet and sign consent for the recording. During the consultation the patient will be alone with the doctor. The small, non-intrusive camera attached to the laptop will record the consultation. After the consultation the patient will be taken to the room allocated for the completion of the questionnaires. The research assistant will give the information sheet to the participant after which the participant will sign consent for the sexual dysfunction assessment and info retrieved from the file. The patient's file will go to the pharmacy for the patient not to lose her/his place in the line.<br>All the data collection sheets will have a corresponding code on stickers which will be attached to the recorded CD, demographic questionnaire, and any other data collection sheet. The researcher will have a master copy of the names and codes of the clinics and patients to ensure correct labelling ensure traceability to compare objectives.<br>The clinic will be allocated a code (Clinic A-J) and every doctor and patient will be allocated a number (Dr1 Pt1; Dr1 Pt2 etc.) and the interview will be logged accordingly. The doctors will be requested to read the | All the data collection sheets will have corresponding codes on stickers which will be attached to recording, demographic questionnaire and any other data collection sheet. The researcher will have a master copy of the names and codes of the clinics and patients to ensure correct labelling ensure traceability to compare objectives. The researcher will complete the chart review on the patient who was consulted with the assistance of a health care worker if information is not clear. The last three months of information about medication will be used. The researcher will tick relevant information on the data collection sheet. | All the data collection sheets will have corresponding codes on stickers which will be attached to recording, demographic questionnaire and any other data collection sheet. The researcher will have a master copy of the names and codes of the clinics and patients to ensure correct labelling ensure traceability to compare objectives. The patients who will be recorded will be requested to complete the sexual dysfunction questionnaire after the consultation while waiting for medication. After the completion of the questionnaire the patient will be requested to place the cart review and questionnaire in an envelope and seal the envelope. The researcher will collect it and keep it for later data capturing and analysis. The patient will receive a health snack as small token of appreciation. The researcher can also then retrospectively follow up on the consultations of patients with sexual | These two objectives will require all the data from objective one to three to come to meaningful conclusions. No extra data to be collected. |

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| | information sheet and consent to take part in the study. The information sheet will include information on the recording of the consultation, the chart review, and questionnaires to be completed as well as how confidentiality will be protected. Recording equipment will be set up in the consultation room to record both the patient and the doctor to observe the interaction between them.<br>The specific focus of the research on sexual health will initially be blinded for both patients and doctors during the consultation. The participants will be informed that the content and nature of the consultation will be analysed without specific reference to the sexual health or history. This will be done so as not to sensitize either the patient or doctor about sexual health and thus limit bias.<br>The consent form will be collected by the researcher.<br>The researcher will not be present during the consultation. An electronic visual and audio recording will be made of the interview. A small camera and microphone linked with a laptop will be placed in a non-intrusive manner in the consultation room. After the consultations the researcher will collect the laptop and recordings will be saved on CD and labelled with the patient doctor code to ensure confidentiality.<br>The researcher will be reviewing the recordings of the consultations a minimum of three times (see Appendices D to G) and will base the analysis on the structured reviews. An expert panel may be involved if trustworthiness of the observations needs to be validated. | | dysfunction to evaluate cues missed during the consultation. | |
| **Pilot study** | A pilot study will be done with the recording of the consultations to test the recording equipment, and angles of recording, and the quality of the sound. | The chart review's feasibility and time it takes to complete will tested during the same time the recording equipment will be piloted. | The questionnaires will be included in the pilot, even though it is standardized. It is important to see if the setting will be conducive for completing it and if the researcher will be able to manage the process with one assistant. The researcher will also | This is not included in the pilot study. |

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| | | | determine the likely number of translated questionnaires and the ratio of male *vs* female questionnaires will be needed. | |
| **Trustworthiness and repeatability OR Reliability and Validity** | **Trustworthiness and repeatability**<br>The sexual history will be described and analysed as qualitative information. Observational studies can be perceived as unreliable and unscientific. By recording the consultation and using theoretical criteria for the sexual history taking process, any other researcher can review the data, repeat the research, and may come to the same or similar conclusion. This method will make the research repeatable and thus more reliable. To secure trustworthy data, the two structured formats (WPBA framework and the sexual history algorithm as well as investigator triangulation will be implemented. [37,38]<br>**Data triangulation (see objective two and three)**: When the researcher will observe and describe the consultation process, the question may arise to what extend is the researcher correct to conclude that certain cues were present or missed. The questionnaire outcome on sexual dysfunction can be compared with consultation outcomes. The opposite will also be possible where the researcher can identify the patients with sexual dysfunction and retrospectively re-analyse their consultations to find cues if it exist. This verifying process will increase the trustworthiness of the qualitative description of the consultation. A chart review will also be done as part of the risk assessment of the patient for sexual dysfunction which may probe the doctor to ask about sexual dysfunction. Both the chart review and the questionnaire outcomes will be used to triangulate the findings of the consultation.<br><br>**Investigator triangulation:** A panel of experts consisting of a family physician and a sexologist will review a sample of the consultations, using the same criteria for analysis. This sample will be 10% of the | **Reliability and Validity**<br>The data collection sheet is based on research results that indicated which diseases, age and medication had a significant association with sexual dysfunction.[5-16]<br>The data collection sheet thus has theoretical reliability and face validity. | **Reliability and Validity**<br>As part of the triangulation to enhance the validity existing sexual dysfunction will be measured with questionnaires the patients will complete after the consultation in order not to sensitize them to the topic of the research.<br><br>For female dysfunction the Female Sexual Function Index (FSFI)[40,41] will be used. The questionnaire was validated by the New England Research Institute using eight independent datasets. The internal consistency of the FSFI was significant as measured by Cronbach's alpha values of minimum 0.82 in all six the domains. The subscales' statistical values ranged between 0.82 and 0.93. Test retest reliability was relatively high for the total scale (r=0.88) with the domains varying between 0.79 and 0.86. Discriminant validity was significant in all the domains, namely desire, arousal, lubrication, orgasm, satisfaction, and pain. | |

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| | original sample and mimic a moderation process. They will observe the recording and then moderate the observations made by the researcher. If we find that this 10% sample has a 70% to 80% similarity, the researcher will conclude that the observations are trustworthy. | | As the scale for females, the International Index of Erectile Function (IIEF) [40,41,43] is a validated scale and will be used. The internal consistency of the IIEF was significant with values of 0.91 to 0.96 in various clinical trials globally. Test retest reliability was high for the total scale (r=0.82) with the domains varying between 0.77 and 0.84. The domains assessed by this questionnaire are sexual desire, erectile function, orgasmic function, intercourse, and overall satisfaction.<br>The two questionnaires are validated standardized instruments used globally and at present the most reliable instruments for sexual dysfunction available to researchers.[40,41,43] | |
| **Bias and limitations** | Possible bias in this study will be:<br><u>Personal bias:</u> The researcher may have preconceived ideas which may limit the researcher's ability to recognise diversity in consultations. The researcher will be aware of the risk and the assistance of an expert panel will limit this bias.<br><u>Data bias:</u> In grounded theory it is important to pay attention also to data that will not fit the existing variables the researcher planned to analyse as it may be that exact data that can lead to a new explanation of the clinical consultation and sexual health. Awareness and open coding, categorisation and memos or field notes will limit this bias. | Possible bias in this study will be:<br><u>Information bias:</u> Patient records are not always meticulously done and gaps in information may exist.[41]<br><br><u>Recording bias:</u><br>Doctors may omit certain information on the patient's request, his/her personal perception of the sensitive nature of the problem as | Possible bias in this study will be:<br><u>Sample bias</u>. The sample will consist mostly of individuals consulting the doctor and thus exclude the healthy population at that time. The participants will present with illness and most likely underlying sexual dysfunction. In terms of socio-economic factors, education and to a certain | |

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| | Sample bias. The sample will consist of doctors who work at the Primary Health Care facilities. Due to registrar involvement at that level, they may be familiar with the researcher's field of interest. Bias will be limited by doing more than one consultation per doctor as they will fall back on their default practice. Other measures e.g., vignettes, will be used to determine common screening and management practices about sexual health in later phases of this study.<br>Cultural or normative bias. Cultural perceptions and religious values influence the verbalization and/or expression of sexuality. The doctors are all professionals and therefore prior training, and knowledge of best practice will limit this bias. It may however still be a limitation with patients.<br>Hawthorne effect: A limitation may be the reality of being part of a study and the awareness of the recording equipment which may impact on congruence during the consultation. The first interview may be influenced the most. This will be assessed, and a decision will be made to exclude the first recording to compensate for this limitation if necessary. | well as familiarity with a patient and his/her complaints.<br><br>The study will mainly concentrate on risk factors for sexual dysfunction such as medication and presenting complaints for the last three months which most likely will be documented. | extent culture, the bias remains as the research is mainly conducted in a public sector primary health care clinic that serves mainly the disadvantaged. The private facilities in these areas may be in minority.<br>Cultural or normative bias. Cultural perceptions and religious values influence the expression of sexuality. This will be limited by using a standardized questionnaire.<br>Criterion bias: The DSM V criteria for female sexual dysfunction changed and no new standardized questionnaires for DSM V have been developed yet, thus will the interpretation of the questionnaire be limited to the criteria as defined by the questionnaire.<br>Cross-cultural use of standardized questionnaires: Both these scales represent globally accepted clinical criteria associated with sexual dysfunction or classic subdivisions of the human sexual act, and thus may the transcultural use of the questionnaire not be a problem. The questions are specific and do not leave room for interpretation.<br>Complexity of human sexual behaviour: Uncritical use of | |

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| | | | these questionnaires will lead to an over simplifying number representing sexual dysfunction. One must keep in mind the psychometric properties of a questionnaire versus the complexity of human sexual functioning. | |
| **Statistical analysis** | Consultation: The focus of this objective is qualitative in nature, although two structured tools will be added to validate observations and the related descriptions.<br>The researcher will start with open coding where the data is described, examined, and compared. The coding can be formal and systematic (following the data collection sheet A) adding informal notes. Concepts will be developed, and categories formed. Axial coding will follow when a central theme or paradigm develop.<br>Selective Coding then will integrate categories in the axial coding model and the researcher will attempt to explain relationships between categories. The three types of coding will be not only sequential, but also be intersecting. Common themes or concepts will be grouped together. The aim will be to describe a strong theoretical understanding of the consultation and consultation dynamics and skills and disclosure of sexual wellbeing. This will be used in the statistical comparison of demographic and sexual dysfunction data.<br>The success of the consultation will be rated between four and 16 and labelled and concluded as successful (code 2) or unsuccessful (Code 1). The researcher will describe the four categories (Insufficient evidence, Needs further development, Competent, and Excellent) and indicate common tendencies in the consultation based on the WPBA framework. Descriptive statistics about frequencies and percentages of the categories as well as the quantifiable success rate, will be done. | The chart review's variables will be described according to frequencies, means and modes. These results will be combined with demographic data, consultation outcomes and sexual dysfunction to achieve objective four. | After the analysis of the interviews, the questionnaires will be analysed, and the existing sexual dysfunction of the questionnaire compared with the consultation outcome. The questionnaires' variables will be described according to frequencies, means and modes. These results will be combined with demographic data, consultation outcomes and chart review data to achieve objective four. | After the analysis of the consultations, the questionnaires will be compared with demographic information, chart review and sexual dysfunction using Pearson coefficient where the p value $<0.05$ is statistically significant.<br>The dependent variable will be the successful consultation that allowed disclosure of sexual health issues. Various factors such as age of the patient, age of the doctor, experience of the doctor, qualifications, marital status, relational factors, and a personal desire to discuss sexual problems will form part of a logistical regression model to determine which factor contribute the most to disclosure of sexual health issues. |

| | | | | |
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| | The scope and quality of the consultation according to the algorithm (Appendix C.3) and criteria guide will be analysed and the frequencies, percentages and modes will be presented in a tabulated summary. Several zero (no sexual history); one (sexual history taken but not optimally) and two (optimal sexual history) will be allocated to the interview. This will be used in the statistical comparison of demographic and sexual dysfunction data.<br>An explorative analysis may be performed depending on the outcome of the results. | | | |
| **Ethical considerations** | Research approval will be obtained in the various sites and the North West Provincial Ethics committee (see Appendix B.1) The researcher will also obtain ethical clearance from the University of Witwatersrand Research Ethics Committee.<br>The participants will be informed that the content of the consultation will be analysed. Both the doctors and the patients will be blinded for the specific content (namely the sexual history taking content) of the consultation that will be analysed. This is to avoid sensitizing them for the research which can contaminate the consultation process. They will however be informed on the specific nature after the consultation when completing the questionnaires or the doctors when attending the debriefing session.<br>Patients and doctors will be requested to complete consent forms (Appendix B.2).<br>No patient or doctor will be identified – they will receive numbers to allow traceability of data.<br>The expert panel will sign a confidentiality agreement not to disclose any information that may identify a patient or doctor.<br>The recordings will only be used to describe the consultation and no visual or audio data will be used for any other purpose.<br>The results of the consultation however will be used for publication and presentations at conferences and for teaching material. | Patients will be requested to complete the consent form (Appendix B.2).<br>No patient will be identified – they will receive numbers to allow traceability of data.<br>An original list with names and file numbers and codes will be compiled and kept safe by the researcher for audit purposes, should it be needed in future.<br>Files will be marked with a green dot to ensure that the same data is not duplicated in the chart review.<br>The researcher will manage the data and keep it safe. This data will be stored for five years if not published and two years if published. After that the data collection sheets will be destroyed. | Patients will be requested to complete the consent form (Appendix B.2).<br>No patient will be identified – they will receive numbers to allow traceability of data.<br>The researcher will manage the data and keep it safe. This data will be stored for five years if not published and two years if published. After that the questionnaires will be destroyed. | This is a statistical process and ethical considerations have been covered in the other objectives. |

| | | | | |
|---|---|---|---|---|
| | The researcher will manage the data and keep it safe. This data will be stored for five years if not published and two years if published. After that the recordings of the consultations and the questionnaires will be destroyed.<br>The researcher requested/obtained permission from the Royal College for General Practitioners to use the WPBA competence framework; the publishers for the sexual history taking algorithm and sexual dysfunction questionnaires for the purpose of this research. Please see Appendix B.4. | | | |

**STUDY TWO**

| | |
|---|---|
| **Overall aim of study** | This study will aim to describe the optimal consultation process and associated factors and skills required to improve disclosure of sexual health issues during a clinical encounter with a doctor in primary health care settings in North West province. |
| **Aim of Study two** | To determine the doctor's clinical awareness of sexual health risks in chronic disease based on a diagnostic and management perception of two hypothetical case studies in North West province. |
| **Objectives** | 1. To describe the doctors' demographic characteristics<br>2. To determine the doctors' diagnostic perception and management of two hypothetical case studies.<br>3. To compare the demographic information and vignette outcomes.<br>4. To supplement information of Study One to develop a theory regarding the consultation and successful disclosure of sexual health issues based on the debriefing session. |
| **Design** | Cross sectional design using a qualitative tool namely vignettes[44,45] depicting two hypothetical patient scenarios, calculating demographics and vignette outcomes quantitatively. |
| **Site of study** | Due to the funding restraints the entire study will be in health care settings and district hospitals in Dr Kenneth Kaunda district (Dr KK). |
| **Study population** | The 18 doctors consulting patients at the primary health care settings and district hospitals. This will include interns, medical officers, senior medical officers, specialists, and registrars. |
| **Sampling** | To have an exhaustive sample, all the doctors working at the Primary Health Care settings and district hospitals in Dr KK health district will be recruited to take part in the research and everyone who consent will be requested to complete a vignette and demographic questionnaire. |
| **Measuring tool** | The vignette is considered "an elicitation tool exploring responses to hypothetical situations"[46] Two possible patient scenarios will be used (Appendix C.12). As it is clinical patient studies, explicit quality criteria according to the national guidelines will be used. Family Physicians will be requested to do the quality review of the design of these patient scenarios. Vignettes have good discriminative values. Peabody et al found "vignette scores appeared to reflect actual physician practice as recorded from simulated patient visits, resulting in higher criterion validity, and consistently measure physician practice more accurately than did chart abstractions, resulting in better content validity…. and appear to be most useful when the focus is on measuring the competence and even practices of a group of providers"[47] The expected answers to the patient scenario will be scored against the ideal recommendations of the National Guidelines for diabetes and hypertension which will form part of the memorandum. The doctor's awareness of sexual health indicators in the form of Vignette answers that will be compared with national guidelines, will be expressed in a numerical value. This coded value will suggest whether the doctor has:<br>e. Assess and manage the patient according to National guidelines (No, code 1 and Yes, code 2)<br>f. Consider sexual dysfunction as a possible complication (No, code 1 and Yes, code 2)<br>g. Consider exploring sexual health or mentioning that s/he would like more information in this regard (code 3)<br>h. Manage or address some of the other aspect of sexual health (No, code 1 and Yes, code 2)<br>A demographic questionnaire will be completed by every doctor who will participate in the study (Appendix J). This demographic questionnaire will be completed after the completion of the vignette and will cover variables such as cultural background, marital status, date qualified, training in sexual health, the ability to talk about sexual health and who must initiate discussion about sexual health.[17,19,25,32,33] |
| **Data collection** | Study two is independent of study one, although the results may supplement study one in the developing of a theory. All the doctors involved in primary health care and district hospitals in Dr KK will be recruited for this study. The researcher will distribute the information sheet and consent form to the doctors. These forms will blind them for the sexual health content of patient scenarios. If they give consent (Consent form O), they will first complete the vignette A (Appendix C.12). After completion and submission of Vignette A, they will receive Vignette B. On completion and submission of Vignette B, the doctor will receive a demographic questionnaire. It will take approximately 20 minutes to complete the questionnaires. Vignettes and demographic questionnaires will be collected and placed in an A4 envelop and sealed to be scored later. A family medicine physician will be requested to moderate the marked vignettes. |

| | |
|---|---|
| **Pilot study** | Five Family Medicine registrars in Gauteng will be requested to complete the vignettes to ensure the quality of the vignettes and to clarify any cues that can be misinterpreted in the vignette. |
| **Bias and limitations** | Cueing bias: The researcher may over or under emphasize the cues for sexual health which could influence outcome. This will be limited by using National Guidelines for diabetes and hypertension as the standard. Detection of cues must give the participant the opportunity to get the correct answer by applying the guidelines s/he must be familiar with.<br>Information bias: The vignette may not be comprehensive enough to give the doctor enough information to detect the cues. Hopefully the pilot study will limit this bias. An additional section where the doctor can list things he would like to ask the patient, may also overcome this bias.<br>Practice bias: The vignette may not reflect clinical practice, but only clinical reasoning and knowledge. To this study, clinical reasoning and knowledge will be sufficient. Vignettes will not elicit other reasons for poor quality of care or the lack of proactive sexual history taking. |
| **Statistical analysis** | Descriptive statistics in the form of frequencies, means, and mode will be calculated. It will be used to describe the following vignette outcomes:<br>5. Assess and manage the patient according to National guidelines<br>6. Consider sexual dysfunction as a possible complication<br>7. Consider exploring sexual health or mentioning that s/he would like more information in this regard<br>8. Manage or address some of the other aspect of sexual health.<br>The demographic details of the doctors, such as age, marital status, experience as doctor, training in sexual health and willingness to explore sexual health problems during the consultation. Statistically frequencies, means, and mode will be calculated.<br>The vignette's coded outcomes will be compared with demographic details using Pearson coefficient /$Chi^2$ test or Fischer exact test where the p value <0.05 to be statistically significant. |
| **Ethical considerations** | Research approval will be obtained in the various sits and the North West Provincial Ethics committee (see Appendix B.1) The researcher will also obtain ethical clearance from the University of Witwatersrand Research Ethics Committee.<br>Doctors will be requested to read the information sheet and complete the consent forms (Appendix B.3).<br>No doctor will be identified, and vignettes and questionnaires will be completed anonymously to ensure confidentiality – they will receive however numbers to allow traceability of data.<br>The researcher will manage the data and keep it safe. This data will be stored for five years if not published and two years if published. After that the vignettes and demographic questionnaires will be destroyed. |

- **WPBA COMPETENCE FRAMEWORK WITH PERMISSION OF THE ROYAL COLLEGE OF GENERAL PRACTITIONERS**

| | **Communication and consultation skills** | | | **FIELD NOTES** |
|---|---|---|---|---|
| This competency is about communication with patients, and the use of recognised consultation techniques | | | | |
| **Insufficient Evidence (Code 1)**<br><br>From the available evidence, the doctor's performance cannot be placed on a higher point of this development scale. | **Needs Further Development (Code 2)**<br><br>Develops a working relationship with the patient, but one in which the problem rather than the person is the focus. | **Competent (Code 3)**<br><br>Explores the patient's agenda, health beliefs and preferences.<br><br>Elicits psychological and social information to place the patient's problem in context. | **Excellent(Code 4)**<br><br>Incorporates the patient's perspective and context when negotiating the management plan. | |
| | Produces management plans that are appropriate to the patient's problem. | Works in partnership with the patient, negotiating a mutually acceptable plan that respects the patient's agenda and preference for involvement. | Whenever possible, adopts plans that respect the patient's autonomy. | |
| | Provides explanations that are relevant and understandable to the patient, using appropriate language. | Explores the patient's understanding of what has taken place. | Uses a variety of communication techniques and materials to adapt explanations to the needs of the patient. | |
| | Achieves the tasks of the consultation but uses a rigid approach. | Flexibly and efficiently achieves consultation tasks, responding to the consultation preferences of the patient. | Appropriately uses advanced consultation skills such as confrontation or catharsis to achieve better patient outcomes. | |

| 2 | Practising holistically | | | FIELD NOTES |
|---|---|---|---|---|
| This competency is about the ability of the doctor to operate in physical, psychological, and socio-economic and cultural dimensions, considering feeling as well as thoughts. | | | | |
| **Insufficient Evidence (Code 1)**<br><br>From the available evidence, the doctor's performance cannot be placed on a higher point of this development scale. | **Needs Further Development (Code 2)**<br><br>Enquiries into both physical and psychological aspects of the patient's problem. | **Competent (Code 3)**<br><br>Demonstrates understanding of the patient in relation to their socio-economic and cultural background.<br>. | **Excellent (Code 4)**<br><br>Uses this understanding to inform discussion and to generate practical suggestions for patient management. | |
| | Recognises the impact of the problem on the patient. | Additionally, recognises the impact of the problem on the patient's family/carers. | Recognises and shows understanding of the limits of the doctor's ability to intervene in the holistic care of the patient. | |
| | Uses him/herself as the sole means of supporting the patient. | Utilises appropriate support agencies (including primary health care team members) targeted to the needs of the patient. | Organises appropriate support for the patient's family and carers. | |

# APPENDIX 3

- **PERMISSION REQUEST TO DO THE RESEARCH: NORTH WEST PROVINCE**

The Directorate
Policy Planning Research Monitoring and Evaluation
Department of Health – North West Province
2015.09.01

Dear Sir /Madam

**PhD RESEARCH PROPOSAL: PERMISSSION REQUESTED TO DO RESEARCH IN NORTH WEST PROVINCE**

I hereby request to do research in North West province.

My proposed study is relevant as it deals with the clinical consultation and the successful disclosure of sexual health. The rationale for my study is:

Sexual health is part of optimal biopsychosocial health as defined by the World Health Organisation. Age, disease and/or medication bring the patient and the doctor together in a clinical consultation where both have private and personal perceptions about sexual health. Several the common conditions our patients present with have a negative effect on sexual health. Many our patients living with chronic disease experience sexual dysfunction and do not have the opportunity to get proper clinical care. Research indicates however that despite the obvious need to address sexual health in the consultation room, it does not happen most of the time. The question which arises is what happens during the clinical consultation between the doctor and the patient; what leads to clinical inertia when it comes to managing sexual dysfunction and does the global prevalence and need for disclosure of sexual dysfunction during a consultation reflects the South African reality.

Please find the approved protocol, Wits ethical clearance and the letter from my supervisor as required.

I am awaiting your favourable consideration.

Kind regards

Deidré Pretorius
Department of Family Medicine
**Tel:** +27 (11) 717 2477 | **fax:** +27 086 2951203
Cell: 0825553597
Deidre.pretorius@wits.ac.za | www.wits.ac.za
Room 412 4th Floor, The Phillip Tobias Health Sciences Building
29 Princess of Wales Street (corner York Road), Parktown, 2193

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MMABATHO 2735

Enq: Nthabiseng Mapogo
Tel: 018 391 4504
Fax: 018 388 6202

2030 NDP

## POLICY, PLANNING, RESEARCH, MONITORING AND EVALUATION

**Name of researcher** : **Ms. Deidre' Pretorius**
**University of Witwatersrand**

**Physical Address** Room 412 NT Building
**(Work/ Institution)** Wits Medical School
University of Witwatersrand

**Subject** : **Research Approval Letter – Doctors' consultation skills with regard to patients' sexual health in primary health care settings in the North West Province.**

This letter serves to inform the Researcher that permission to undertake the above mentioned study has been granted by the North West Department of Health. The Researcher is expected to arrange in advance with the chosen facilities, and issue this letter as proof that permission has been granted by the Provincial office.

This letter of permission should be signed and a copy returned to the department. By signing, the Researcher agrees, binds him/herself and undertakes to furnish the Department with an electronic copy of the final research report. Alternatively, the Researcher can also provide the Department with electronic summary highlighting recommendations that will assist the department in its planning to improve some of its services where possible. Through this the Researcher will not only contribute to the academic body of knowledge but also contributes towards the bettering of health care services and thus the overall health of citizens in the North West Province.

Kindest regards

LEPAPHA LA BOITEKANELO
DEPARTMENT OF HEALTH
Kgetsana Poso /Private Bag X2068
Mmabatho.2735
06 MAR 2017
NORTH WEST PROVINCE
REPUBLIC OF SOUTH AFRICA

**Mr. L.P. Moalsi**
**Acting Director: PPRM&E**

16/03/2017
**Date**

**Researcher**

2017/03/24
**Date**

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG
DEPARTMENT OF FAMILY MEDICINE
PVT Building, 29 Princess of Wales Road, Parktown 2193 South Africa

The Directorate

Policy Planning Research Monitoring and Evaluation

Department of Health – North West Province

2018.05.01

Dear Sir /Madam

**PHD RESEARCH PROPOSAL: PERMISSSION REQUESTED TO DO RESEARCH IN NORTH WEST PROVINCE.**

I hereby request to do research in North West province.

My proposed study is relevant as it deals with the clinical consultation and the successful disclosure of sexual health. The rationale for my study is:

> Sexual health is part of optimal biopsychosocial health as defined by the World Health Organisation. Age, disease and/or medication bring the patient and the doctor together in a clinical consultation where both have private and personal perceptions about sexual health. A number of the common conditions our patients present with have a negative effect on sexual health. A large number of our patients living with chronic disease experience sexual dysfunction and do not have the opportunity to get proper clinical care. Research indicates however that despite the obvious need to address sexual health in the consultation room, it does not happen most of the time. The question which arises is what actually happens during the clinical consultation between the doctor and the patient; what leads to clinical inertia when it comes to managing sexual dysfunction and does the global prevalence and need for disclosure of sexual dysfunction during a consultation reflects the South African reality.

Please find the approved protocol, Wits ethical clearance and the letter from my supervisor as required.

I am awaiting your favourable consideration.

Kind regards

Deidre Pretorius
Department of Family Medicine
**Tel:** +27 (11) 717 2477 | **fax:** +27 086 2951203
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health
Department of
Health
North West Province
REPUBLIC OF SOUTH AFRICA

*All correspondence to be directed to:*
The Clinical Manager
Dr. David Leburu
K/T Hospital Complex
Private Bag A14
KLERKSDORP
2570

Tel: (018) 408 4740
Fax: (018) 462 1923
Enq:

**CLINICAL MANAGER'S OFFICE**

03rd July 2018

**To : WITS University**

**Dear Sir/ Madam**

**RE : DOCTORS CONSULTATION SKILLS WITH REGARDS TO SEXUAL HEALTH IN THE NORTH WEST PROVINCE**

**Presenter – Mrs. Deidre Pretorius**
**Date – 03th June 2018**

This letter serves to confirm that permission has been granted by K/T Hospital Complex Patient Safety Group (PSG) for study approval letter for study title: doctor's consultation skills with regards to sexual health in the North West Province in Klerksdorp/Tshepong Hospital Complex. The researcher is requested to submit regular study progress reports and final study report upon completion of the project. The permission is subject of approval of the Ethics Committee.

**Kind Regards**

.....
**Dr. N.D. Leburu**
**Clinical Manager**
**K/T Hospital Complex**

# APPENDIX 4

- **OBSERVATION SCHEDULE – MEMO & FIELD NOTES (Researcher and research assistant)**

The following aspects will be noted at the health care facility as it may impact on consultation outcome. Due to the nature of grounded theory research, the scope of factors may not be limited to this only.

| | | | |
|---|---|---|---|
| 1 | Setting – General information | | |
| 2 | Number of consultation rooms available | | |
| 3 | Privacy | Yes | No |
| 4 | Seating arrangements | | |
| 5 | Access to information on sexual health | Yes | No |
| 6 | Nature of above information | | |
| 7 | Staff: Number of doctors | | |
| 8 | Staff: Number of nurses | | |
| 9 | Average number of patients per doctor per day | | |

**Memos - Comments or other observations**

| |
|---|
| |
| |
| |
| |

# APPENDIX 5

- **WPBA COMPETENCE FRAMEWORK WITH PERMISSION OF THE ROYAL COLLEGE OF GENERAL PRACTITIONERS**

| | **Communication and consultation skills** | | | **FIELD NOTES** |
|---|---|---|---|---|
| This competency is about communication with patients, and the use of recognised consultation techniques | | | | |
| **Insufficient Evidence (Code 1)**<br><br>From the available evidence, the doctor's performance cannot be placed on a higher point of this development scale. | **Needs Further Development (Code 2)**<br><br>Develops a working relationship with the patient, but one in which the problem rather than the person is the focus. | **Competent (Code 3)**<br><br>Explores the patient's agenda, health beliefs and preferences.<br><br>Elicits psychological and social information to place the patient's problem in context. | **Excellent(Code 4)**<br><br>Incorporates the patient's perspective and context when negotiating the management plan. | |
| | Produces management plans that are appropriate to the patient's problem. | Works in partnership with the patient, negotiating a mutually acceptable plan that respects the patient's agenda and preference for involvement. | Whenever possible, adopts plans that respect the patient's autonomy. | |
| | Provides explanations that are relevant and understandable to the patient, using appropriate language. | Explores the patient's understanding of what has taken place. | Uses a variety of communication techniques and materials to adapt explanations to the needs of the patient. | |
| | Achieves the tasks of the consultation but uses a rigid approach. | Flexibly and efficiently achieves consultation tasks, responding to the consultation preferences of the patient. | Appropriately uses advanced consultation skills such as confrontation or catharsis to achieve better patient outcomes. | |

| 2 | Practising holistically | | | FIELD NOTES |
|---|---|---|---|---|
| This competency is about the ability of the doctor to operate in physical, psychological, and socio-economic and cultural dimensions, considering feeling as well as thoughts. | | | | |
| **Insufficient Evidence (Code 1)**<br><br>From the available evidence, the doctor's performance cannot be placed on a higher point of this development scale. | **Needs Further Development (Code 2)**<br><br>Enquiries into both physical and psychological aspects of the patient's problem. | **Competent (Code 3)**<br><br>Demonstrates understanding of the patient in relation to their socio-economic and cultural background.<br>. | **Excellent (Code 4)**<br><br>Uses this understanding to inform discussion and to generate practical suggestions for patient management. | |
| | Recognises the impact of the problem on the patient. | Additionally, recognises the impact of the problem on the patient's family/carers. | Recognises and shows understanding of the limits of the doctor's ability to intervene in the holistic care of the patient. | |
| | Uses him/herself as the sole means of supporting the patient. | Utilises appropriate support agencies (including primary health care team members) targeted to the needs of the patient. | Organises appropriate support for the patient's family and carers. | |

# APPENDIX 6

- **PERMISSION OBTAINED: ROYAL AUSTRALIAN COLLEGE OF GENERAL PRACTITIONERS**

RACGP
Royal Australian College of General Practitioners

Healthy Profession.
Healthy Australia.

4 March 2021
University of the Witwatersrand
Deidré Pretorius

**RE: PERMISSION REQUEST**

Dear Deidré,

Thank you for your request for permission to reproduce material originally published in Australian Family Physician for your PhD.

On behalf of the RACGP, I am happy to grant you permission to reproduce: 'Box 3. Brief sexual history as routine part of medical history: Sample questions.'

Please ensure the following copyright statement is included:

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Best regards,

Tammie Kishere

Administration Officer
Strategic Marketing & Communications

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# APPENDIX 7

- **SEXUAL HISTORY TAKING ANALYSIS SHEET[42]**

**To be completed by researcher: DATE**_____

**DURATION**_____

| **CONSULTATION** | | **X** | **Comments** |
|---|---|---|---|
| 1 | Presenting complaint (Specify) | 1 | |
| 2 | Medical complaint sexually related | 2 | **If YES, proceed to 10 -20** |
| | | | **If NO, proceed to 3** |
| 3 | Does complaint have sexual implications (impotence, infertility, depression) | 3 | **If YES , proceed to 4 – 7** |
| | | | **If NO, proceed to 8 & 9** |
| 4 | Create opportunity to discuss concerns | 4 | |
| 5 | Probe the nature of concerns in clinically appropriate manner | 5 | |
| 6 | Manage it | 6 | |
| 7 | Refer for management to a specialist | 7 | |
| 8 | If appropriate, discuss safer sex (address sexual wellbeing) and explain reason for doing it | 8 | |
| 9 | Leave 'the door open' for patient to discuss if it becomes a problem | 9 | |
| 10 | Age of first sexual experience | 10 | |
| 11 | Nature of previous sexual experiences | 11 | |
| 12 | History of pregnancies, miscarriages | 12 | |
| 13 | History of contraceptive / barrier protection methods used | 13 | |
| 14 | History of sexual transmitted diseases | 14 | |
| 15 | Explore travel away from home, alcohol, and drug use | 15 | |
| 16 | History of sexual abuse | 16 | |
| 17 | Psychological problems | 17 | |
| 18 | Psychosexual problems (erection, ejaculation, sexual desire, pain during intercourse) | 18 | |
| 19 | Cultural and religious rules and practices | 19 | |
| 20 | Discuss management (investigations, treatment, referral, implications for relationships, safer sex and arrange follow-up. | 20 | |
| 21 | Specify sexual management (if any) | | |
| 22 | Specify referral for sexual problem (if any) | | |

# APPENDIX 8

- **DEMOGRAPHIC DATA QUESTIONNAIRE (PATIENT)**

Please complete the following questions anonymously.

Please mark the answer applicable to you with an "X". Indicate ONLY ONE answer.

| Date | | Clinic name | |
|---|---|---|---|

| | | | |
|---|---|---|---|
| 1 | Familiarity with the clinic and staff | I use this clinic regularly | 1.1 |
| | | It is the first time I come to this clinic | 1.2 |

| | | |
|---|---|---|
| 2 | My **first** language is…. | |

| | | | |
|---|---|---|---|
| 3 | Sex | Male | 4.1 |
| | | Female | 4.2 |

| | | |
|---|---|---|
| 4 | What is your age? | |

| | | | |
|---|---|---|---|
| 5 | Please indicate how far you completed school? | Primary School (Gr 0-7) | 5.1 |
| | | Secondary school (Gr 8-12) | 5.2 |
| | | After school (College, University) | 5.3 |

| | | | | | |
|---|---|---|---|---|---|
| 6 | Marital status | Single | 6.1 | Married | 6.5. |
| | | Divorced | 6.2 | Estranged | 6.6 |
| | | Separated | 6.3 | Widowed | 6.7 |
| | | Live together | 6.4 | Other | 6.8 |

| | | |
|---|---|---|
| 7 | How long have you been with your partner? | _____years_____months |

| | | | |
|---|---|---|---|
| 8 | The quality of my relationship with my partner is: | Very bad | 8.1 |
| | | Bad | 8.2 |
| | | Satisfactory | 8.3 |
| | | Good | 8.4 |
| | | Very good | 8.5 |

| | | | |
|---|---|---|---|
| 9 | I trust the doctors working at the clinic | All the time | 9.1 |
| | | Some of the time | 9.2 |
| | | Never | 9.3 |

| | | | |
|---|---|---|---|
| 10 | I feel comfortable discussing sensitive matters with the doctor at the clinic. | Yes | 10.1 |
| | | No | 10.2 |
| | | Sometimes | 10.3 |

| | | | |
|---|---|---|---|
| 11 | Sexual problems are not a sensitive matter; it is like any other health problem. | I agree | 11.1 |
| | | I do not agree | 11.2 |

| | | | |
|---|---|---|---|
| 12 | I would like to discuss any sexual problems I may experience with the doctor at the clinic. | Yes, always | 12.1 |
| | | Yes, sometimes | 12.2 |
| | | Only when the doctor ask about it | 12.3 |
| | | No, never | 12.4 |
| | | Only when I ask for it | 12.5 |

| | | | |
|---|---|---|---|
| 13 | The doctor must know about my sexual practices to help me better my overall health. | Yes, always | 13.1 |
| | | Yes, sometimes | 13.2 |
| | | Only when the doctor ask about it | 13.3 |
| | | No, never | 13.4 |
| | | Only when I ask for it | 13.5 |

| | | |
|---|---|---|
| 14 | What will stop or prevent you discussing sexual problems with your doctor? | |

| | | |
|---|---|---|
| 15 | What will help you to talk to a doctor about sexual problems? | |

**Thank you for your willingness to help us to better our medical services and to enhance your total well-being.**

# APPENDIX 9

- **DEMOGRAPHIC DATA QUESTIONNAIRE (DOCTOR)**

Please complete the following questions anonymously.

Please mark the answer applicable to you with an "X".

| | | | |
|---|---|---|---|
| 1 | | Date | |

| | | |
|---|---|---|
| 2 | Clinic name | |

| | | |
|---|---|---|
| 3 | I am full time in public service | |
| | I am doing sessions and have private practice | |

| | | | |
|---|---|---|---|
| 4 | Sex | Male | 4.1 |
| | | Female | 4.2 |

| | | |
|---|---|---|
| 5 | What is your age? | |

| | | |
|---|---|---|
| 6 | My **first** language is…. | |

| | | |
|---|---|---|
| 7 | Please name additional courses you completed, besides MBChB. | |

| | | |
|---|---|---|
| 8 | How long have you been practicing as a doctor? | years |

| | | | | | |
|---|---|---|---|---|---|
| 9 | Marital status | Single | 9.1 | Married | 9.5. |
| | | Divorced | 9.2 | Estranged | 9.6 |
| | | Separated | 9.3 | Widowed | 9.7 |
| | | Live together | 9.4 | Other | 9.8 |

| | | | |
|---|---|---|---|
| 10 | I feel comfortable to discuss sensitive matters with my patients | Yes, always | 11.1 |
| | | No, never | 11.2 |
| | | Sometimes | 11.3 |

| | | | |
|---|---|---|---|
| 11 | I can discuss sexual wellbeing with a patient | Yes, always | 12.1 |
| | | No, never | 12.2 |
| | | Sometimes | 12.3 |
| | | Only when clinically indicated | 12.4 |

| | | |
|---|---|---|
| 12 | What makes it easy to discuss sexual matters with your patient? | |

| | | |
|---|---|---|
| 13 | What makes it difficult to discuss sexual matters with your patient? | |

| | | |
|---|---|---|
| 14 | Who must initiate discussion of sexual problems in the consultation? | |

| | | |
|---|---|---|
| 15 | Name the single most important factor that you think contribute to doctors not talking about sexual dysfunction to their patients. | |

**Thank you for your willingness to assist in this research**

# APPENDIX 10

- **BIOGRAPHIC DATA QUESTIONNAIRE (PATIENT)**

**TO BE COMPLETED BY THE RESEARCHER OR RESEARCH ASSISTANT**

Please mark the applicable answer(s) with an "X" and/or copy the information from the patient file.

| | | |
|---|---|---|
| 1 | Date | |
| 2 | Presenting complaint | |

| | | |
|---|---|---|
| 3.1 | Blood pressure | |
| 3.2 | Heart rate | |
| 3.3 | Respiratory rate | |
| 3.4 | Weight | |
| 3.5 | BMI | |

| | | | | | |
|---|---|---|---|---|---|
| 4 | Chronic disease | Diabetes | 4.1 | Cardiovascular | 4.5. |
| | | Hypertension | 4.2 | TB | 4.6 |
| | | Dyslipidaemia | 4.3 | HIV/AIDS | 4.7 |
| | | Depression | 4.4 | Epilepsy | 4.8 |
| | | **Other (Specify please)** | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 5 | Medication used | Benzodiazepines | 5.1 | Beta-blockers | 5.10 |
| | | Calcium-channel blockers | 5.2 | Cimetidine | 5.11 |
| | | Digoxin | 5.3 | lithium | 5.12 |
| | | Lipid lowering agents | 5.4 | Oestrogens | 5.13 |
| | | Monoamine oxidase inhibitors | 5.5 | Opiates | 5.14 |
| | | Phenytoin | 5.6 | Progesterone | 5.16 |
| | | Thiazide | 5.7 | Diuretics | 5.17 |
| | | Tricyclic antidepressants | 5.8 | SSRI | 5.18 |
| | | ARV | 5.9 | OTHER | |
| | | | | | |

# APPENDIX 11

- **FEMALE SEXUAL FUNCTION INDEX (FSFI)**

Patient number _____ Date _____

**INSTRUCTIONS: These questions ask about your sexual feelings and responses <u>during the past 4 weeks.</u>**
**Please answer the following questions as clearly as possible. Your responses will be kept completely confidential.**

In answering these questions, the following definitions apply:

<u>Sexual activity</u> can include caressing, foreplay, masturbation, and vaginal intercourse.

<u>Sexual intercourse</u> is defined as penile penetration (entry) of the vagina.
<u>Sexual stimulation</u> includes situations like foreplay with a partner, self-stimulation (masturbation), or

sexual fantasy.

**CHECK <u>ONLY</u> ONE BOX PER QUESTION.**

*<u>Sexual desire</u> or <u>interest</u> is a feeling that includes wanting to have a sexual experience, feeling receptive to a partner's sexual initiation, and thinking or fantasizing about having sex.*

| | | | |
|---|---|---|---|
| 1 | Over the past 4 weeks, how **often** did you feel sexual desire or interest? | Almost always or always | |
| | | Most times (more than half the time | |
| | | Sometimes (about half the time) | |
| | | A few times (less than half the time) | |
| | | Almost never or never | |

| | | | |
|---|---|---|---|
| 2 | Over the past 4 weeks, how would you rate your **level** (degree) of sexual desire or interest? | Very high | |
| | | High | |
| | | Moderate | |
| 65<br>3 0 | | | |
| | | Low | |
| | | Very low or none at all | |

*<u>Sexual arousal</u> is a feeling that includes both physical and mental aspects of sexual excitement. It may include feelings of warmth or tingling in the genitals, lubrication (wetness), or muscle contractions.*

| | | | |
|---|---|---|---|
| 3 | Over the past 4 weeks how **often** did you feel sexually aroused ("turned on") during sexual activity or intercourse? | No sexual activity | |
| | | Almost always or always | |
| | | Most times (more than half the time) | |
| | | Sometimes (about half the time) | |
| | | A few times (less than half the time) | |
| | | Almost never or never | |

| | | | |
|---|---|---|---|
| 4 | Over the past 4 weeks, how would you rate your **level** of sexual arousal ("turn on") during sexual activity or intercourse? | No sexual activity | |
| | | Very high | |
| | | High | |
| | | Moderate | |
| | | Low | |
| | | Very low or none at all | |

| | | | |
|---|---|---|---|
| 5 | Over the past weeks, how **confident** were you about becoming sexually aroused during sexual activity or intercourse? | No sexual activity | |
| | | Very high confidence | |
| | | High confidence | |
| | | Moderate confidence | |
| | | Low confidence | |
| | | Very low or no confidence | |

| | | | |
|---|---|---|---|
| 6 | Over the past 4 weeks, how **often** have you been satisfied with your arousal (excitement) during sexual activity or intercourse? | No sexual activity | |
| | | Almost always or always | |
| | | Most times (more than half the time | |
| | | Sometimes (about half the time) | |
| | | A few times (less than half the time) | |
| | | Almost never | |

| | | | |
|---|---|---|---|
| 7 | Over the past 4 weeks, how **often** did you become lubricated ("wet") during sexual activity or intercourse? | No sexual activity | |
| | | Almost always or always | |
| | | Most times (more than half the time | |
| | | Sometimes (about half the time) | |
| | | A few times (less than half the time) | |
| | | Almost never | |

| | | | |
|---|---|---|---|
| 8 | Over the past 4 weeks, how **difficult** was it to become lubricated ("wet") during sexual activity or intercourse? | No sexual activity | |
| | | Extremely difficult or impossible | |
| | | Very difficult | |
| | | Difficult | |
| | | Slightly difficult | |
| | | Not difficult | |

| | | | |
|---|---|---|---|
| 9<br>77.3* | Over the past 4 weeks, how often did you **maintain** your lubrication ("wetness") until completion of sexual activity or intercourse? | No sexual activity | |
| | | Almost always or always | |
| | | Most times (more than half the time | |
| | | Sometimes (about half the time) | |
| | | A few times (less than half the time) | |
| | | Almost never | |

| | | | |
|---|---|---|---|
| 10 | Over the past 4 weeks, how **difficult** was it to maintain your lubrication ("wetness") until completion of sexual activity or intercourse? | No sexual activity | |
| | | Extremely difficult or impossible | |
| | | Very difficult | |
| | | Difficult | |
| | | Slightly difficult | |
| | | Not difficult | |

| | | | |
|---|---|---|---|
| 11 | Over the past 4 weeks, when you had sexual stimulation or intercourse, how **often** did you reach orgasm (climax)? | No sexual activity | |
| | | Almost always or always | |
| | | Most times (more than half the time | |
| | | Sometimes (about half the time) | |
| | | A few times (less than half the time) | |
| | | Almost never | |

| | | | |
|---|---|---|---|
| 12 | Over the past 4 weeks, when you had sexual stimulation or intercourse, how **difficult** was it for you to reach orgasm (climax)? | No sexual activity | |
| | | Extremely difficult or impossible | |
| | | Very difficult | |
| | | Difficult | |
| | | Slightly difficult | |
| | | Not difficult | |

| | | | |
|---|---|---|---|
| 13 | Over the past 4 weeks, how **satisfied** were you with your ability to reach orgasm (climax) during sexual activity or intercourse? | No sexual activity | |
| | | Very satisfied | |
| | | Moderately satisfied | |
| | | About equally satisfied and dissatisfied | |
| | | Moderately dissatisfied | |
| | | Very satisfied | |

| | | | |
|---|---|---|---|
| 14 | Over the past 4 weeks, how **satisfied** have you been with the amount of emotional closeness during sexual activity between you and your partner? | No sexual activity | |
| | | Very satisfied | |
| | | Moderately satisfied | |
| | | About equally satisfied and dissatisfied | |
| | | Moderately dissatisfied | |
| | | Very satisfied | |

| | | | |
|---|---|---|---|
| 15 | Over the past 4 weeks, how **satisfied** have you been with your sexual relationship with your partner? | Very satisfied | |
| | | Moderately satisfied | |
| | | About equally satisfied and dissatisfied | |
| | | Moderately dissatisfied | |
| | | Very satisfied | |

| | | | |
|---|---|---|---|
| 16 | Over the past 4 weeks, how **satisfied** have you been with your overall sexual life? | Very satisfied | |
| | | Moderately satisfied | |
| | | About equally satisfied and dissatisfied | |
| | | Moderately dissatisfied | |
| | | Very satisfied | |

| | | | |
|---|---|---|---|
| 17 | Over the past 4 weeks, how **often** did you experience discomfort or pain <u>during</u> vaginal penetration? | Did not attempt intercourse | |
| | | Almost always or always | |
| | | Most times (more than half the time) | |
| | | Sometimes (about half the time) | |
| | | A few times (less than half the time) | |
| | | Almost never or never | |

| | | | |
|---|---|---|---|
| 18 | Over the past 4 weeks, how **often** did you experience discomfort or pain <u>following</u> vaginal penetration? | Did not attempt intercourse | |
| | | Almost always or always | |
| | | Most times (more than half the time) | |
| | | Sometimes (about half the time) | |
| | | A few times (less than half the time) | |
| | | Almost never or never | |

| | | | |
|---|---|---|---|
| 19 | Over the past 4 weeks, how would you rate<br><br>your **level** (degree) of discomfort or pain during or following vaginal penetration? | Did not attempt intercourse | |
| | | Very high | |
| | | High | |
| | | Moderate | |
| | | Low | |
| | | Very low or not at all | |

***Thank you for completing this questionnaire***

# APPENDIX 12

- **THE INTERNATIONAL INDEX OF ERECTILE FUNCTION (IIEF)**

**Patient number** _____ **Date** _____

**Instructions:**
**These questions ask about the effects your erection problems have had on your sex life, over the <u>past 4 weeks</u>. Please answer the following questions as clearly as possible.**

In answering these questions, the following definitions apply:

**Definitions:**

**Sexual activity** includes intercourse, caressing, foreplay, and masturbation

**Sexual intercourse** is defined as vaginal penetration of the partner (you entered the partner)
**Sexual stimulation** includes situations like foreplay with a partner, looking at erotic pictures, etc.

**Ejaculate** is defined as the ejection of semen from the penis (or the feeling of this)

**Mark only one answer per question.**

| | | | |
|---|---|---|---|
| 1 | Over the past 4 weeks, how often were you able to get an erection during Sexual activity? | No sexual activity | |
| | | Almost always or always | |
| | | Most times (much more than half the time) | |
| | | Sometimes (about half the time) | |
| | | A few times (much less than half the time) | |
| | | Almost never | |
| | | | |
| 2 | Over the past 4 weeks, when you had erections with sexual stimulation, how often were your erections hard enough for penetration? | No sexual activity | |
| | | Almost always or always | |
| | | Most times (much more than half the time) | |
| | | Sometimes (about half the time) | |
| | | A few times (much less than half the time) | |
| | | Almost never | |

Questions 3, 4 and 5 will ask about erections you may have during sexual intercourse.

| | | | |
|---|---|---|---|
| 3 | Over the past 4 weeks, when you attempted sexual intercourse, how often were you able to penetrate (enter) your partner? | Did not attempt intercourse | |
| | | Almost always or always | |
| | | Most times (much more than half the time) | |
| | | Sometimes (about half the time) | |
| | | A few times (much less than half the time) | |
| | | Almost never or never | |

| | | | |
|---|---|---|---|
| 4 | Over the past 4 weeks, during sexual intercourse, how often were you able to maintain your erection after you had penetrated (entered) your partner? | Did not attempt intercourse | |
| | | Almost always or always | |
| | | Most times (much more than half the time) | |
| | | Sometimes (about half the time) | |
| | | A few times (much less than half the time) | |
| | | Almost never or never | |

| | | | |
|---|---|---|---|
| 5 | Over the past 4 weeks, during sexual intercourse, how difficult was it to maintain your erection to completion of intercourse? | Did not attempt intercourse | |
| | | Extremely difficult | |
| | | Very difficult | |
| | | Difficult | |
| | | Slightly difficult | |
| | | Almost never or never | |

| | | | |
|---|---|---|---|
| 6 | Over the past 4 weeks, how many times have you attempted sexual intercourse? | No attempts | |
| | | 1-2 attempts | |
| | | 3-4 attempts | |
| | | 5-6 attempts | |
| | | 7-10 attempts | |
| | | 11 or more attempts | |

| | | | |
|---|---|---|---|
| 7 | Over the past 4 weeks, when you attempted sexual intercourse how | Did not attempt intercourse | |
| | | Almost always or always | |

| | | | |
|---|---|---|---|
| | often was it satisfactory for you? | Most times (much more than half the time) | |
| | | Sometimes (about half the time) | |
| | | A few times (much less than half the time | |
| | | Almost never or never | |

| | | | |
|---|---|---|---|
| 8 | Over the past 4 weeks, how much have you enjoyed sexual intercourse? | No intercourse | |
| | | Very highly enjoyable | |
| | | Highly enjoyable | |
| | | Fairly enjoyable | |
| | | Not very enjoyable | |
| | | Not enjoyable | |

| | | | |
|---|---|---|---|
| 9 | Over the past 4 weeks, when you had sexual stimulation or intercourse, how often did you ejaculate? | Did not attempt intercourse | |
| | | Almost always or always | |
| | | Most times (more than half the time) | |
| | | Sometimes (about half the time) | |
| | | A few times (much less than half the time) | |
| | | Almost never or never | |

| | | | |
|---|---|---|---|
| 10 | Over the past 4 weeks, when you had sexual stimulation or intercourse how often did you have the feeling of orgasm or climax (With or without) ejaculation)? | No sexual stimulation or intercourse | |
| | | Almost always or always | |
| | | Most times (much more than half the time) | |
| | | Sometimes (about half the time) | |
| | | A few times (much less than half the time) | |
| | | Almost never of never | |

Questions 11 and 12 ask about sexual desire. Let's define sexual desire as a feeling that may include wanting to have sexual experience (for example, masturbation or intercourse), thinking about having sex of feeling frustrated due to lack of sex.

| | | | |
|---|---|---|---|
| 11 | Over the past 4 weeks, how often have you felt sexual desire? | Almost always or always | |
| | | Most times (much more than half the time) | |
| | | Sometimes (about half the time) | |
| | | A few times (much less than half the time) | |
| | | Almost never or never | |

| | | | |
|---|---|---|---|
| 12 | Over the past 4 weeks, how would you rate your level of sexual desire? | Very high | |
| | | High | |
| | | Moderate | |
| | | Low | |
| | | Very low or none at all | |

| | | | |
|---|---|---|---|
| 13 | Over the past 4 weeks, how satisfied have you been with your overall sex life? | Very satisfied | |
| | | Moderately satisfied | |
| | | About equally satisfied and dissatisfied | |
| | | Moderately dissatisfied | |
| | | Very dissatisfied | |

| | | | |
|---|---|---|---|
| 14 | Over the past 4 weeks, how satisfied have you been with your sexual relationship with your partner? | Very satisfied | |
| | | Moderately satisfied | |
| | | About equally satisfied and dissatisfied | |
| | | Moderately dissatisfied | |
| | | Very dissatisfied | |

| | | | |
|---|---|---|---|
| 15 | Over the past 4 weeks, how do you rate your confidence that you can get and keep your erection? | Very high | |
| | | High | |
| | | Moderate | |
| | | Low | |
| | | Very low | |

***Thank you for completing this questionnaire***

# APPENDIX 13

- **SCORING ALGORITHM AND VALIDATION STATISTICS**

**Scoring Algorithm for IIEF**[43]

All items are scored in 5 domains as follows:

| Domain | Items | Range Score | Max Score |
|---|---|---|---|
| Erectile Function | 1, 2, 3, 4, 5, 15 | 1 to 5 | 30 |
| Orgasmic Function | 9, 10 | 0 to 5 | 10 |
| Sexual Desire | 11, 12 | 2 to 5 | 10 |
| Intercourse Satisfaction | 6, 7, 8 | 0 to 5 | 15 |
| Overall Satisfaction | 13, 14 | 2 to 5 | 10 |

**Clinical Interpretation**

I Erectile function total scores can be interpreted as follows:

| | |
|---|---|
| 1 to 6 | Severe dysfunction |
| 7 to 12 | Moderate dysfunction |
| 13 to 18 | Mild to moderate dysfunction |
| 19 to 24 | Mild dysfunction |
| 25 to 30 | No dysfunction |

II Orgasmic function total scores can be interpreted as follows:

| Score | Interpretation |
|---|---|
| 0 to 2 | Severe dysfunction |
| 3 to 4 | Moderate dysfunction |
| 5 to 6 | Mild to moderate dysfunction |
| 7 to 8 | Mild dysfunction |
| 9 to 10 | No dysfunction |

III Sexual desire total scores can be interpreted as follows:

| Score | interpretation |
|---|---|
| 2 | Severe dysfunction |
| 3 to 4 | Moderate dysfunction |
| 5 to 6 | Mild to moderate dysfunction |
| 7 to 8 | Mild dysfunction |
| 9 to 10 | No dysfunction |

IV Intercourse satisfaction total scores can be interpreted as follows:

| Score | interpretation |
|---|---|
| 0 to 3 | Severe dysfunction |
| 4 to 6 | Moderate dysfunction |
| 7 to 9 | Mild to moderate dysfunction |
| 1- to 12 | Mild dysfunction |
| 13 to 15 | No dysfunction |

V Overall satisfaction total scores can be interpreted as follows:

| Score | interpretation |
|---|---|
| 2 | Severe dysfunction |
| 3 to 4 | Moderate dysfunction |
| 5 to 6 | Mild to moderate dysfunction |
| 7 to 8 | Mild dysfunction |
| 9 to 10 | No dysfunction |

**Scoring system FSFI[40]**

The individual domain scores and full score of the FSFI are derived by the computational formula outlined in the table below.

Individual domain scores are obtained by adding the scores of the individual items that comprise the domain and multiplying the sum by the domain factor (See below).
The full-scale score is obtained by adding the six domain scores. It should be noted that within the individual domains, a domain score of zero indicates that no sexual activity was reported during the past month.

| Domain | Questions | Score range | Factor | Minimum score | Maximum score |
|---|---|---|---|---|---|
| Desire | 1,2 | 1-5 | 0.6 | 1.2 | 6.0 |
| Arousal | 3,4,5,6 | 0-5 | 0.3 | 0 | 6.0 |
| Lubrication | 7,8,9,10 | 0-5 | 0.3 | 0 | 6.0 |
| Orgasm | 11,12,13 | 0-5 | 0.4 | 0 | 6.0 |
| Satisfaction | 14,15,16 | 0/1-5 | 0.4 | 0 | 6.0 |
| Pain | 17,18,19 | 0-5 | 0.4 | 0 | 6.0 |
| | Full scale range | | | 2.0 | 36.0 |

**Validation statistics for the two questionnaires:**

The International Index of Erectile Function (IIEF) [40,41,43] is a validated scale and will be used. The internal consistency of the IIEF was significant with values of 0.91 to 0.96 in various clinical trials globally. Test retest reliability was high for the total scale (r=0.82) with the domains varying between 0.77 and 0.84. The domains assessed by this questionnaire are sexual desire, erectile function, orgasmic function, intercourse, and overall satisfaction.

For female dysfunction the Female Sexual Function Index (FSFI)[40,41] will be used. The questionnaire was validated by the New England Research Institute using eight independent datasets. The internal consistency of the FSFI was significant as measured by Cronbach's alpha values of minimum 0.82 in all six the domains. The subscales' statistical values ranged between 0.82 and 0.93. Test retest reliability was relatively high for the total scale (r=0.88) with the domains varying between 0.79 and 0.86. Discriminant validity was significant in all the domains, namely desire, arousal, lubrication, orgasm, satisfaction, and pain.

The two questionnaires are validated standardized instruments used globally and at present the most reliable instruments for sexual dysfunction available to researchers.[40,41,43] The domains it tests are defined like the clinical domains as statistically identified by the DSM-IV TR.

# APPENDIX 14

- **VIGNETTES: HYPOTHETICAL PATIENT SCENARIOS IN A PRIMARY HEALTH SETTING**

Doctor number _____ Date _____

**Hypothetical cases in a primary health setting**

There are two hypothetical patient scenarios in this questionnaire. Please complete both.

**Vignette A - Patient scenario 1**

A 48-year-old female patient with Type II diabetes mellitus presents in your consulting room with complaints of vaginal burning and itchiness. She has no suprabubic pain and confirms a slight discharge. She has a history of noninfectious vulvitis. Vital signs, random blood glucose and HbA1c are within the normal range.

| QUESTION 1.1: What possible conditions could be affecting this patient? |
|---|
| |
| |
| |
| |

| QUESTION 1.2: What would you like to ask the patient to help her? |
|---|
| |
| |
| |
| |

| QUESTION 1.3: How will you manage this patient based on the information given to you? |
|---|
| |
| |

**Vignette B - Patient scenario 2**

A 45-year-old male patient presents for his annual checkup. He is a known hypertensive patient for the past ten years and at present on Atenolol (Tenormin) 100mg daily and Enalapril 10mg b.d., Hydrochlorothiazide (HCTZ) 12.5 mg. He is happy to inform you that he stopped smoking 3 months ago (he smoked 18 cigarettes per day since he age 17). He complains about fatigue.

| QUESTION 2.1: What possible complications will you explore? |
|---|
| |
| |
| |
| |
| |
| |
| |

| QUESTION 2.2: How will you manage this patient based on the information given to you? |
|---|
| |
| |
| |
| |

**Thank you for completing this questionnaire, the reflection interview will follow.**

**Interview schedule for doctors following vignette completion.**

"*Thank you for agreeing to participate in this research. The specific focus of this study was to observe sexual history taking content, as well as the patient-doctor interaction related to it. About 60% plus patients with diabetes and hypertension experience sexual dysfunction, and some studies suggested that about 90% of patients want to discuss sexual challenges with you to get help."*

***Question:*** *"I would like to know your perceptions and experiences of sexual history taking during the consultations we recorded. The videos are available if you want to refresh your memory."*

The researcher allowed the doctor to respond with whatever came to his/her mind. Probing questions, if relevant, were:

- What stopped you from taking a sexual history?
- What helped you to ask about sexual challenges?
- What must change to take a sexual history?
- What training did you have on sexual dysfunction?
- Would you like training on sexual history taking and/or sexual dysfunction?

# APPENDIX 15

- **INFORMATION SHEET AND CONSENT FORM FOR PATIENT (STUDY ONE)**

Dear Sir/Madam

We are doing research to improve on health outcomes and to enhance optimal biopsychosocial wellbeing. By participating you can assist us to achieve this.

**Why is this research important?**
Sexual health is part of general health. Patients consult doctors because they are sick or need medication. We know that some patients also have sexual problems. Patients do not get the help they need for sexual problems, as they do not get the opportunity to talk to the doctor about it. The patient may feel embarrassed to talk about it, or feel the doctor is too young or too old. The doctors sometimes do not have time to listen. Research tells us that patients want to talk about sexual problems. The researcher wants to know how many people in Dr Kenneth Kaunda Health District, North West have sexual problems and need help for it.

**Do I have to take part?**
Your participation is voluntary and if you do not participate it will not affect your treatment at this clinic. We would like you to consent to participate in this study as we believe that you can make an important contribution to the research. If you do not wish to participate, you will just proceed with your routine at the clinic as usual.

**What must I do and how will my dignity be protected?**
To answer this research question, the researcher thus requests to record the consultation between you and the doctor. Firstly, you will be requested to allow the recording of your consultation with the doctor. You and the doctor will be alone in the consultation room with a small camera recorder mounted on a laptop. No recording will be made of the examination, and the recorded material will not be used after analysis of the information. The researcher will also use information on your file about the reason you came to hospital today, diseases you may have, and medication you use. Then you will also be requested to complete two questionnaires to assist us to validate the consultation information. You can do this while waiting for your medication and will take about 20 minutes. It is important that you **do not write** your name on any of the questionnaires. We will assist you not to lose your place in the queue.

**What will the researcher do with the collected information?**
The recorded material will only be used for analysis of the information. All collected data, storage and processing will be kept confidential all the time. Only the results or findings of these recordings will be published, presented at conferences, and used as training material. The original recordings will be destroyed after a period of two years after publication of the results. **You will not be identified by name or image.** The researcher is only interested in the consultation content and process.

**What are the possible disadvantages and risk of taking part?**

Your medical care will not be compromised. You may initially feel uncomfortable, knowing you are recorded, but experience tells us that will adapt fast and then consult as any other day.

**What are the possible benefits of taking part?**

Whilst there may be no personal or direct benefits to your participation in this study, the information you provide can contribute to the future training of doctors to improve their consultation skills or health promotion programmes to improve help-seeking behaviour of patients.

If you need help completing this questionnaire or have any questions, do not hesitate to contact me on the contact details below.

If you feel that the research process is unethical, you may also contact the Chairperson, Prof CB Penny of the Human Research Ethics Committee (HREC) of University of the Witwatersrand at Telephone: 0117172635, Email: clement.penny@wits.ac.za for any queries or complaints.

If at any given time you feel that the research traumatized you, please contact the researcher immediately that we can arrange for professional intervention.

If at any given time you feel that the research traumatized you, please contact the doctor at the clinic or the researcher immediately that we can arrange for professional intervention.

Deidré Pretorius
Department of Family Medicine
**Tel:** +27 (11) 717 2477 | **fax:** +27 086 2951203
Cell: 0825553597
Deidre.pretorius@wits.ac.za | www.wits.ac.za
Room 412 4th Floor, The Phillip Tobias Health Sciences Building
29 Princess of Wales Street (corner York Road), Parktown, 2193

---

**CONSENT FORM**

**Date……. Setting…….**

I…….....hereby give/do not give permission to Deidré Pretorius to do the recordings and use the content of the questionnaire for the purpose of research. The information sheet has been read to me and I understand it and freely agree to answer the questionnaire which will provide information about me.

Name……. Signature……

# APPENDIX 16

- **INFORMATION SHEET AND CONSENT FORM FOR DOCTOR (STUDY ONE)**

Dear Sir/Madam

We are doing research to improve on health outcomes and to enhance optimal biopsychosocial wellbeing. By participating you can assist us to achieve this.

**Why is this research important?**
Age, disease and/or medication bring the patient and the doctor together in a clinical consultation. Many our patients living with chronic disease experience problems related to their health status and do not have the opportunity to get the specific help they need. We know a consultation has numerous constraints, e.g., time constraints, personal and professional barriers, such as age, gender, skill etc. The question which arises is what happens during the clinical consultation between the doctor and the patient; what is the scope and content of the consultation and is it patient or provider factors compromising disclosure of certain individual problems during the consultation?

**Do I have to take part?**
Your participation is voluntary. We would like you to consent to participate in this study as we believe that you can make an important contribution to the research.

**What must I do and how will my dignity be protected?**
To answer this research question, the researcher will request you to record approximately ten consultations between you and patients. Permission from the patients will also be obtained. Firstly, you will be requested to allow the recording of your consultation with the patient. The two of you will be alone in the consultation room with a small camera recorder mounted on a laptop. No recording will be made of the examination, and the recorded material will not be used after analysis of the information. Then you will be requested to complete a demographic questionnaire to assist us to supplement the consultation information, which include whether psychosocial factors are usually discussed during the consultation. Other information will be on your training, experience, and personal aspects.

**What will the researcher do with the collected information?**
The recorded material will only be used for analysis of the information. All collected data, storage and processing will be kept confidential all the time. Only the results or findings of these recordings will be published, presented at conferences, and used as training material. The original recordings will be destroyed after a period of two years after publication of the results. **You will not be identified by name or image.** The researcher is only interested in the consultation content and process.

**What are the possible disadvantages and risk of taking part?**
You may initially feel uncomfortable, knowing you are recorded, but experience tells us, that you will adapt fast and then consult as any other day. It is important that you push the queue as usual.

**What are the possible benefits of taking part?**

Whilst there may be no personal or direct benefits to your participation in this study, the information you provide can contribute to the future training of doctors to improve their consultation skills or health promotion programmes to improve help-seeking behaviour of patients.

If you need help completing this questionnaire or have any questions, do not hesitate to contact me on the contact details below.

If you feel that the research process is unethical, you may also contact the Chairperson, Prof CB Penny of the Human Research Ethics Committee (HREC) of University of the Witwatersrand at Telephone: 0117172635, Email: clement.penny@wits.ac.za for any queries or complaints.

If at any given time you feel that the research traumatized you, please contact the researcher immediately that we can arrange for professional intervention.

Deidré Pretorius
Department of Family Medicine
**Tel:** +27 (11) 717 2477 | **fax:** +27 086 2951203
Cell: 0825553597
Deidre.pretorius@wits.ac.za | www.wits.ac.za
Room 412 4th Floor, The Phillip Tobias Health Sciences Building
29 Princess of Wales Street (corner York Road), Parktown, 2193

---

**CONSENT FORM**

**Date……. Setting……..**

I…….....hereby give/do not give permission to Deidré Pretorius to do the recordings and use the content of the questionnaire for the purpose of research. The information sheet has been read to me and I understand it and freely agree to answer the questionnaire which will provide information about me.

Name……. Signature…….

# APPENDIX 17

- **INFORMATION SHEET AND CONSENT FORM FOR DOCTOR (STUDY TWO)**

Dear Sir/Madam

We are doing research to improve on health outcomes and to enhance optimal biopsychosocial wellbeing. By participating you can assist us to achieve this.

**Why is this research important?**
Age, disease and/or medication bring the patient and the doctor together in a clinical consultation. Many our patients living with chronic disease experience problems related to their health status and do not have the opportunity to get the specific help they need. We know a consultation has numerous constraints, e.g., time constraints, personal and professional barriers, such as age, gender, skill etc. The researcher designed two vignettes to determine what your clinical reasoning would be in two hypothetical patient studies, when you do not have the time constraints of a consultation.

**Do I have to take part?**
Your participation is voluntary. We would like you to consent to participate in this study as we believe that you can make an important contribution to the research. If you do not wish to participate, please inform the researcher.

**What must I do and how will my dignity be protected?**
To answer this research question, the researcher will request you to complete questions on two hypothetical patients and a demographic questionnaire

**What will the researcher do with the collected information?**
All collected data, storage and processing will be kept confidential all the time. Only the results or findings will be published, presented at conferences, and used as training material. The original questionnaires will be destroyed after a period of two years after publication of the results. **You will not be identified by name or image.**

**What are the possible disadvantages and risk of taking part?**
There is no disadvantage to you. Your goodwill to participate will be appreciated.

**What are the possible benefits of taking part?**
Whilst there may be no personal or direct benefits to your participation in this study, the information you provide can contribute to the future training of doctors to improve service delivery or health promotion programmes to improve help-seeking behaviour of patients.

If you need help completing this questionnaire or have any questions, do not hesitate to contact me on the contact details below.

If you feel that the research process is unethical, you may also contact the Chairperson, Prof CB Penny of the Human Research Ethics Committee (HREC) of University of the Witwatersrand at Telephone: 0117172635, Email: clement.penny@wits.ac.za for any queries

or complaints.

If at any given time you feel that the research traumatized you, please contact the researcher immediately that we can arrange for professional intervention.

Deidré Pretorius
Department of Family Medicine
**Tel:** +27 (11) 717 2477 | **fax:** +27 086 2951203
Cell: 0825553597
Deidre.pretorius@wits.ac.za | www.wits.ac.za
Room 412 4th Floor, The Phillip Tobias Health Sciences Building
29 Princess of Wales Street (corner York Road), Parktown, 2193

---

**CONSENT FORM**

**Date……. Setting……..**

I…….....hereby give/do not give permission to Deidré Pretorius to do the recordings and use the content of the questionnaire for the purpose of research. The information sheet has been read to me and I understand it and freely agree to answer the questionnaire which will provide information about me.

Name……. Signature……

# APPENDIX 18

- **ETHICAL CLEARANCE CERTIFICATE**

R14/49 Mrs Deidre Pretorius

**HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)**

**CLEARANCE CERTIFICATE NO. M160557**

| | |
|---|---|
| **NAME:** (Principal Investigator) | Mrs Deidre Pretorius |
| **DEPARTMENT:** | Family Medicine<br>Ventersdorp Hospital, JB Marks Clinic, Tswaloleng clinic<br>Leeudoringstad clinic, Tigane clinic, Jouberton CHC<br>Grace Mkhomo and Botshabelo Clinics<br>Boiki Tlhapi and Premosa |
| **PROJECT TITLE:** | Doctors' Consultation Skills with Regard to Patients' Sexual Health in Primary Health Care Setting in North West |
| **DATE CONSIDERED:** | 27/05/2016 |
| **DECISION:** | Approved unconditionally |
| **CONDITIONS:** | |
| **SUPERVISOR:** | Dr M. Mlambo and Prof I. Couper |
| **APPROVED BY:** | Professor P. Cleaton-Jones,Chairperson, HREC (Medical) |
| **DATE OF APPROVAL:** | 22/02/2017 |

**This clearance certificate is valid for 5 years from date of approval. Extension may be applied for.**

**DECLARATION OF INVESTIGATORS**

To be completed in duplicate and **ONE COPY** returned to the Research Office Secretary in Room 10004,10th floor, Senate House/2nd floor, Phillip Tobias Building, Parktown. University of the Witwatersrand. I/We fully understand the the conditions under which I am/we are authorised to carry out the above-mentioned research and I/we undertake to ensure compliance with these conditions. Should any departure be contemplated,from the research protocol as approved, I/we undertake to resubmit to the Committee **I agree to submit a yearly progress report** The date for annual re-certification will be one year after the date of convened meeting where the study was initially reviewed. in this case, the study was initially review in and will therefore be due in the month of May each year. Unreported changes to the application may invalidate the clearance given by the HREC (Medical)

Principal Investigator Signature

Date

**PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES**

2

# APPENDIX 19

- **COREQ CHECKLIST**

**COREQ (COnsolidated criteria for REporting Qualitative research) Checklist**

A checklist of items that should be included in reports of qualitative research. You must report the page number in your manuscript where you consider each of the items listed in this checklist. If you have not included this information, either revise your manuscript accordingly before submitting or note N/A.

| Topic | Item No. | Guide Questions/Description | Reported on Page No. |
|---|---|---|---|
| **Domain 1: Research team and reflexivity** | | | |
| *Personal characteristics* | | | |
| Interviewer/facilitator | 1 | Which author/s conducted the interview or focus group? | 251 |
| Credentials | 2 | What were the researcher's credentials? E.g. PhD, MD | MSc Psych |
| Occupation | 3 | What was their occupation at the time of the study? | Lecturer |
| Gender | 4 | Was the researcher male or female? | Female |
| Experience and training | 5 | What experience or training did the researcher have? | 36 years |
| *Relationship with participants* | | | |
| Relationship established | 6 | Was a relationship established prior to study commencement? | 62-68 |
| Participant knowledge of the interviewer | 7 | What did the participants know about the researcher? e.g. personal goals, reasons for doing the research | 71-74 |
| Interviewer characteristics | 8 | What characteristics were reported about the inter viewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic | 92 |
| **Domain 2: Study design** | | | |
| *Theoretical framework* | | | |
| Methodological orientation and Theory | 9 | What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis | 64-67 |
| *Participant selection* | | | |
| Sampling | 10 | How were participants selected? e.g. purposive, convenience, consecutive, snowball | 66-75 |
| Method of approach | 11 | How were participants approached? e.g. face-to-face, telephone, mail, email | 70-73 |
| Sample size | 12 | How many participants were in the study? | 110 |
| Non-participation | 13 | How many people refused to participate or dropped out? Reasons? | 80 |
| *Setting* | | | |
| Setting of data collection | 14 | Where was the data collected? e.g. home, clinic, workplace | 66-71 |
| Presence of non-participants | 15 | Was anyone else present besides the participants and researchers? | 106 |
| Description of sample | 16 | What are the important characteristics of the sample? e.g. demographic data, date | 113 |
| *Data collection* | | | |
| Interview guide | 17 | Were questions, prompts, guides provided by the authors? Was it pilot tested? | 229-231 |
| Repeat interviews | 18 | Were repeat inter views carried out? If yes, how many? | 78 |
| Audio/visual recording | 19 | Did the research use audio or visual recording to collect the data? | 81 |
| Field notes | 20 | Were field notes made during and/or after the inter view or focus group? | 83-91 |
| Duration | 21 | What was the duration of the inter views or focus group? | - |
| Data saturation | 22 | Was data saturation discussed? | 93 |
| Transcripts returned | 23 | Were transcripts returned to participants for comment and/or | 253 |

| Topic | Item No. | Guide Questions/Description | Reported on Page No. |
|---|---|---|---|
| | | correction? | |
| **Domain 3: analysis and findings** | | | |
| *Data analysis* | | | |
| Number of data coders | 24 | How many data coders coded the data? | xix |
| Description of the coding tree | 25 | Did authors provide a description of the coding tree? | 135 |
| Derivation of themes | 26 | Were themes identified in advance or derived from the data? | 271-299 |
| Software | 27 | What software, if applicable, was used to manage the data? | 135 |
| Participant checking | 28 | Did participants provide feedback on the findings? | - |
| *Reporting* | | | |
| Quotations presented | 29 | Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? e.g. participant number | 165+ 248+ |
| Data and findings consistent | 30 | Was there consistency between the data presented and the findings? | 271 |
| Clarity of major themes | 31 | Were major themes clearly presented in the findings? | 271+ |
| Clarity of minor themes | 32 | Is there a description of diverse cases or discussion of minor themes? | 271+ |

Developed from: Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*. 2007. Volume 19, Number 6: pp. 349 – 357

**Once you have completed this checklist, please save a copy and upload it as part of your submission. DO NOT include this checklist as part of the main manuscript document. It must be uploaded as a separate file.**

# APPENDIX 20

- **PCHFM ACCEPTANCE LETTER: NEGLECTED SEXUAL DYSFUNCTION SYMPTOMS AMONG CHRONIC PATIENTS DURING ROUTINE CONSULTATIONS IN RURAL CLINICS IN NORTH-WEST PROVINCE**

-----Original Message-----
From: aosis@phcfm.org <aosis@phcfm.org>
Sent: Thursday, 18 March 2021 16:50
To: Deidre Pretorius <Deidre.Pretorius@wits.ac.za>
Subject: PHCFM Submission 2985 - Confirmation and acknowledgement of receipt

**********
Ref. No.: 2985
Manuscript title: Sexual history taking: Doctors' clinical decision making in primary care in the North-West Province, South Africa
Journal: African Journal of Primary Health Care & Family Medicine
**********
Dear Ms Deidre Pretorius

Your submission has been received by the journal and will now be processed in accordance with published timelines.

Processing time guidelines are available under the journal's 'About'
section, however, please note that each submission is assessed on its individual merit and in certain circumstances processing times may differ.

You can check the status of your submission in three ways:
- Journal Website: login to your account at
https://phcfm.org/index.php/phcfm/author/submission/2985.
- Publisher Enquiry Service: telephone numbers are +27(0)219752602 and/or 0861000381.
- Publisher FAQ and Email Service: visit the Publisher FAQ and Email service at
https://publishingsupport.aosis.co.za/index.php

You will receive additional emails from the journal as your submission passes through the phases of the editorial process.

Kind regards,
AOSIS Publishing
African Journal of Primary Health Care & Family Medicine

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Confidentiality: The information contained in and attached to this email is confidential and for use of the intended recipient. This email adheres to the email disclaimer described on https://aosis.co.za

# APPENDIX 21

- **EDITING CERTIFICATES**

renate olinger
EDITING & PROOFREADING

Golf Club Terrace
Constantia Kloof
Roodepoort
Gauteng
1709
South Africa

16 February 2021

To Whom It May Concern,

**RE: Language Editing of Manuscript to be Submitted**

This letters serves as confirmation that the manuscript titled below, intended for publication in an academic peer-reviewed journal, has undergone professional language and technical editing. The following items were reviewed and corrected: spelling, grammar, punctuation, sentence structure, phrasing, referencing and overall formatting of the document.

**Title:** 'We are not truly friendly faces': Primary health care doctors' reflections on sexual history taking in North West province
**Authors:** D. Pretorius, M. G. Mlambo, I. D. Couper

Copies of the manuscript with markup can be made available upon request Should you require further information, kindly contact me on renate.olinger@yahoo.com.

Yours Sincerely,

**Renate Olinger**
*Editor & Proofreader*
*(Professional Editors' Guild Membership No: OLI005)*

-

renate olinger
EDITING & PROOFREADING

Golf Club Terrace
Constantia Kloof
Roodepoort
Gauteng
1709
South Africa

13 March 2021

To Whom It May Concern,

**RE: Language Editing of Manuscript to be Submitted**

This letters serves as confirmation that the manuscript titled below, intended for publication in an academic peer-reviewed journal, has undergone professional language and technical editing. The following items were reviewed and corrected: spelling, grammar, punctuation, sentence structure, phrasing, referencing and overall formatting of the document.

**Title:** Sexual history taking in rural primary care in South Africa: Patients at risk of sexual dysfunction overlooked
**Authors:** D. Pretorius, M. G. Mlambo, I. D. Couper

Copies of the manuscript with markup can be made available upon request. Should you require further information, kindly contact me on renate.olinger@yahoo.com.

Yours Sincerely,



**Renate Olinger**
*Editor & Proofreader*
*(Professional Editors' Guild Membership No: OLI005)*

renate olinger
EDITING & PROOFREADING

Golf Club Terrace
Constantia Kloof
Roodepoort
Gauteng
1709
South Africa

22 February 2021

To Whom It May Concern,

**RE: Language Editing of Manuscript to be Submitted**

This letters serves as confirmation that the manuscript titled below, intended for publication in an academic peer-reviewed journal, has undergone professional language and technical editing. The following items were reviewed and corrected: spelling, grammar, punctuation, sentence structure, phrasing, referencing and overall formatting of the document.

**Title:** Perspectives on sexual history taking in chronic primary healthcare consultations in North West, South Africa: Disconnect between patients and doctors
**Authors:** D. Pretorius, M. G. Mlambo, I. D. Couper

Copies of the manuscript with markup can be made available upon request. Should you require further information, kindly contact me on renate.olinger@yahoo.com.

Yours Sincerely,

**Renate Olinger**
*Editor & Proofreader*
*(Professional Editors' Guild Membership No: OLI005)*

renate olinger

Golf Club Terrace
Constantia Kloof
Roodepoort
Gauteng
1709
South Africa

13 March 2021

To Whom It May Concern,

**RE: Language Editing of Manuscript to be Submitted**

This letters serves as confirmation that the manuscript titled below, intended for publication in an academic peer-reviewed journal, has undergone professional language and technical editing. The following items were reviewed and corrected: spelling, grammar, punctuation, sentence structure, phrasing, referencing and overall formatting of the document.

**Title:** Sexual history taking: Perspectives on doctor-patient interactions during routine consultations in rural primary care in South Africa
**Authors:** D. Pretorius, M. G. Mlambo, I. D. Couper

Copies of the manuscript with markup can be made available upon request. Should you require further information, kindly contact me on.renate.olinger@yahoo.com.

Yours Sincerely,

**Renate Olinger**
*Editor & Proofreader*
*(Professional Editors' Guild Membership No: OLI005)*

P.O. box 885
HOUGHTON
2041
meyer.fe576@gmail.com

October 28th, 2020

# ENGLISH PROOF-READING/EDITING

To Whom It May Concern

The journal article titled, 'Neglected sexual dysfunction symptoms among chronic patients during routine consultations in rural clinics in North-West Province' to be submitted by Dr D. PRETORIUS *et al* has been proof-read and edited for proper English language, syntax, grammar, punctuation, British/SA spelling, and overall style by F.E. MEYER. As per Dr PRETORIUS'S brief, the 57 individual references were not checked according to the Vancouver referencing style .The research content and/or the researchers' intention was not altered in any way during the process.

Blue highlighting will require the corresponding author's attention. The date on the footnote on this page corresponds with that of the attached proof-read and edited sections of the journal article. Any further proof-reading or editing required by the researchers, due to changes or amendments to this journal article will be accompanied by an updated covering page and will replace this covering page.

F.E. Meyer

_____

F.E. MEYER
B.A. (UNISA)

Footnote: Proof reader's/editor's covering page

***Edited journal article*** ***2020/10/28*** ***PRET/02***

P.O. box 885
HOUGHTON
2041
meyer.fe576@gmail.com

March 17th, 2021

# ENGLISH PROOF-READING/EDITING

To Whom It May Concern

The journal article titled, 'Sexual history taking: doctors' clinical decision making in primary care in the North-West Province, South Africa' to be submitted to the African Journal of Primary Care & Family Medicine (PHCFM) by Dr D. PRETORIUS et al has been proof-read and edited for proper English language, syntax, grammar, punctuation, British/SA spelling, and overall style by F.E. MEYER. As requested, document formatting was applied to the journal article according to the guidelines for authors (https://phcfm.org/index.php/phcfm/pages/view/submission-guidelines#part_1). The 67 references were checked according to the Vancouver referencing as per PHCFM (AOSIS publishing) guidelines. The research content and/or the authors' intentions were not altered during the process.

Blue and yellow highlighting will require the corresponding author's attention. The date on the footnote on this page corresponds with that of the attached proof-read and edited sections of the journal article. Any further proof-reading or editing required by the author(s), due to changes or amendments to this journal article will be accompanied by an updated covering page and will replace this covering page.

F.E. Meyer

F.E. MEYER
B.A. (UNISA)

Footnote: Proof reader's/Editor's covering page

***Edited journal article*** ***2021/03/17*** ***PRET/05***

P.O. box 885
HOUGHTON
2041
meyer.fe576@gmail.com

October 28th, 2020

# ENGLISH PROOF-READING/EDITING

To Whom It May Concern

The journal article titled, 'Neglected sexual dysfunction symptoms among chronic patients during routine consultations in rural clinics in North-West Province' to be submitted by Dr D. PRETORIUS *et al* has been proof-read and edited for proper English language, syntax, grammar, punctuation, British/SA spelling, and overall style by F.E. MEYER. As per Dr PRETORIUS'S brief, the 57 individual references were not checked according to the Vancouver referencing style .The research content and/or the researchers' intention was not altered in any way during the process.

Blue highlighting will require the corresponding author's attention. The date on the footnote on this page corresponds with that of the attached proof-read and edited sections of the journal article. Any further proof-reading or editing required by the researchers, due to changes or amendments to this journal article will be accompanied by an updated covering page and will replace this covering page.

F.E. Meyer

_____

F.E. MEYER
B.A. (UNISA)

Footnote: Proof reader's/editor's covering page

***Edited journal article*** ***2020/10/28*** ***PRET/02***




103 Kieser Street
Rietondale
Pretoria
Gauteng
0084
South Africa

28 October 2021

To Whom It May Concern,

**RE: Language Editing of Thesis to be Submitted**

This letters serves as confirmation that the thesis chapters titled below, have undergone professional language editing. The following items were reviewed and corrected: spelling, grammar, punctuation, sentence structure, and phrasing of the document.

**Thesis title:** Doctors' consultation skills and patients' sexual health in primary healthcare settings in North West Province
**Author:** Deidré Pretorius

**Abstract**

**Chapter 1:** Introduction

**Chapter 2:** Literature review

**Chapter 3:** Methods

**Chapter 10:** Discussion

Copies of the chapters with markup can be made available upon request. Should you require further information, kindly contact me on AbedaDawood7@gmail.com.

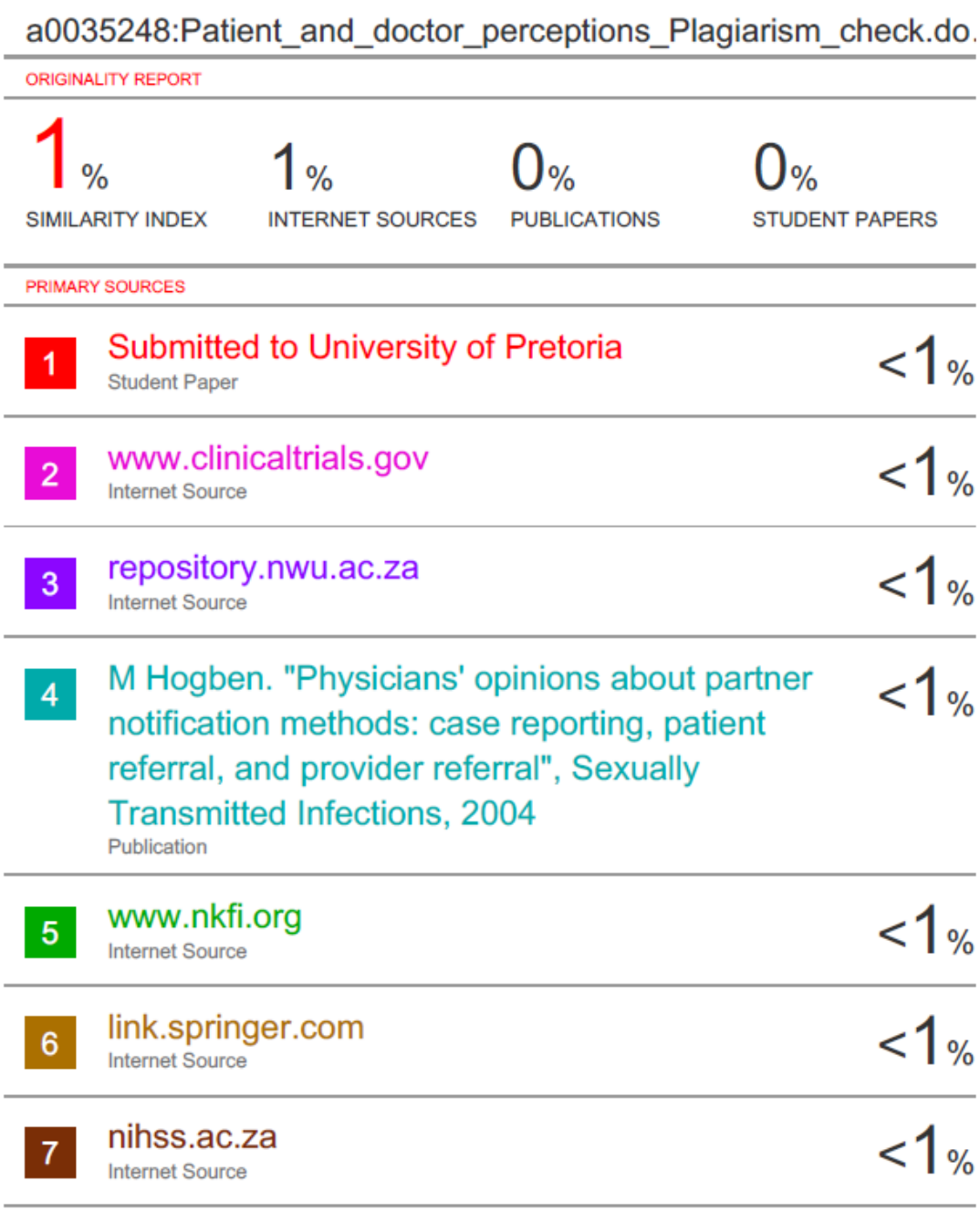
Yours Sincerely,



**Abeda Dawood**
*Academic Editor*
*(Professional Editors' Guild Membership No: DAW005)*

# APPENDIX 22

- **TURN-IT-IN REPORT**



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