Health Seeking Behaviour in Men Presenting with Sexually Transmitted Infections at Prince Mshiyeni Gateway Clinic and KwaMashu Community Health Centre in 2015

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November 2015

As the candidate's supervisor, I have read the dissertation and have given approval / have not given approval for submission for examination

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Discipline of Public Health Medicine

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DECLARATION

I, Mpumelelo Nyalela, declare that:

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ACRONYMS

AIDS: Acquired Immune Deficiency Syndrome

BREC: Biomedical Research Ethics Committee

CI: Confidence Interval

CDC: Centers for Disease Control and Prvention

CHC: Community Health Centre

HIV: Human Immune Deficiency Virus

HSB: Health Seeking Behaviour

KCHC: KwaMashu Community Health Centre

KZN: KwaZulu Natal

OR: Odds Ratio

PMGC: Prince Mshiyeni Gateway Clinic

PMMH: Prince Mshiyeni Memorial Hospital

SES: Socio-economic status

STI: Sexually Transmitted Infections

UK: United Kingdom

WHO: World Health Organization

DEFINITION OF TERMS

Health seeking behaviour

Act of seeking of medical help for treatment, advice and education from public healthcare facilities, once a man experiences signs and symptoms of STIs like burning of urine in micturition, herpes, warts, blisters, sores, swelling of the private parts. Or any attempt aiming at finding a remedy for a perceived illness in order to get relief from a symptom or illness [10, 19, 23].

Delayed health seeking behavior

Act of delaying seeking medical help and treatment for STIs from public healthcare facilities, once a man experiences signs and symptoms of STIs like burning of urine in micturition, herpes, warts, blisters, sores, swelling of the private parts for a period of three and more days of that experience [2, 10 15].

Sexual transmitted infection

Signs and symptoms of STI characterized my burning in micturition, herpes, warts, blisters, sores, swelling of the private parts, including HIV/AIDS [4, 6].

Healthcare facility

Public health institution where medical help can be obtained for management of STIs [2].

Self-treatment

An act of self-medication (modern or traditional), to which a person can have access, either by buying it or getting it from the countryside [1].

Patient / Client

The term denotes an individual under medical treatment, professional health advice and health education [10].

ABSTRACT

Background: South Africa's burden of disease due to sexually transmitted infections (STIs) is currently one of the largest in the world, with an estimated 11 million cases detected per year. There is evidence suggesting that early recognition of symptoms, and early presentation to health facilities with effective treatment would reduce the spread of treatable STIs.

Aim: The aim of the study was to assess the factors associated with the health seeking and sexual behaviour of men presenting with STIs at Prince Mshiyeni Gateway Clinic and KwaMashu Community Health Centre, eThekwini.

Method: This was an observational, descriptive and analytical cross-sectional study. Participants were systematically selected from patients who presented at the clinic with confirmed signs or symptoms of an STI, aged between 18 and 49 years, who agreed to participate. In total 134 questionnaires were collected.

Results: Most of the participants were between ages of 26-35 (41%), the majority single (78.4%). Participants were knowledgeable about STIs, knew that they can get STIs by unprotected sex (88.1%) and through multiple partners (85.1%), and that to be protected a condom should be used at every sexual encounter (86.6%). The majority (68.7%), however, did not use a condom the last time they had sex, and 67.1% had more than ten lifetime partners. Over half of participants (53%) delayed presenting themselves to the clinic after noticing signs and symptoms of an STI, despite knowing about STIs. There was a significant association between delayed health seeking behaviour at the clinic and an initial visit rather to a traditional healer ($p = 0.004$). Participants at PMG clinic were less likely to delay seeking medical help than those from KCHC (OR 0.30; 95%CI: 0.15-0.62; $p=0.001$). Participants who visited traditional healers more than seven times a year were more likely to delay seeking medical help (OR 1.75; 95%CI: 1.07-2.89). When participants were asked "what would prevent them from coming to the clinic", over half of participants (56.7%) reported fear of staff stigmatization and bad attitude. Importantly, most men stopped using condoms once they experienced erectile dysfunction.

Conclusion: This study indicates the need to deal with men's attitudes, because despite knowing about STIs and their prevention, men still engage in risky sexual behaviour. The health system needs to improve the standard of services provided, and to deal with health workers' negative attitudes.

Key words: Health seeking behaviour, delay health seeking behaviour, men, sexually transmitted diseases, HIV prevention, men's roles, sexual health

CHAPTER 1: INTRODUCTION

1.1 Background to the study

Sexually transmitted infections (STIs) remain a major public health problem throughout the world, with men being the main carriers who can easily transmit such infections to their sexual partners [1-4]. STIs are infections transmitted during sexual contact, which can occur during any type of sexual activity [5]. The extent of transmission depends on the population prevalence of the STI, the rate of risky sexual behaviour, individual susceptibility, and other risk factors such as age and socioeconomic status [4]. These sexually transmitted infections include those caused by bacterial, mycological, and protozoal agents that can be treated by appropriate antibiotics and chemotherapeutic agents, for example syphilis, gonorrhea, chlamydia, and trichomoniasis. In addition to the "curable" STIs, there are also viral STIs that occur annually including human immunodeficiency virus (HIV), herpes viruses, human papilloma viruses, and hepatitis B viruses that cannot be eradicated through currently available medication [6].

According to the World Health Organization (WHO) fact sheet (December 2015), each year there are an estimated 357 million new infections with 1 of 4 STIs including chlamydia, gonorrhoea, syphilis and trichomoniasis [30]. More than one million persons in the world get infected every day [7]. Furthermore, adolescents and young adults have the highest rates of curable STIs, since up to 1 in 20 adolescents develop a new STI each year [8]. The largest proportion of STIs occur in developing nations [6]. Adding to the burden of STIs are its financial implications. According to a CDC report (2008) which revealed direct STI treatment costs in low and middle income nations, the median estimated cost for drugs alone for a single acute, bacterial STI episode is USD $2.62 (range, $0.05 to $35.23), more than three times the average daily income for low income nations. STIs can also impose costs related to lost productivity due to STI morbidity and mortality, resulting in adverse outcomes on economic growth in developing nations [8].

In the African context, the overall yearly incidence rate of curable STIs in Africa is estimated at 254 per 1000 people in the reproductive ages (15–49 years), but is only 77–91 per 1000 in industrialised countries [9]. It is estimated that 69 million STI cases occur in Southern Africa (25 per 100 adults) [8]. Southern African countries are the worst affected by sexually transmitted infections compared to Northern Africa and Middle East African countries, where there are about 10 million infections (6 per 100 adults) [8]. In addition, Southern African countries are most affected by the HIV/AIDS pandemic, with more than 30 million people living with HIV/AIDS in the region [2].

South Africa's burden of disease due to sexually transmitted infections (STIs) is currently one of the largest in the world [4]. Furthermore, it is estimated that 11 million cases of STIs per year occur in South Africa [10]. According to the National Strategic Plan on HIV, STIs and TB 2012-2016, the cost of treating STIs is estimated at 214 million rand per year [11].

Policymakers are beginning to focus on men's roles as fathers and husbands, while little attention is being paid to their sexual and reproductive health needs [12]. As a result, high rates of STI infections are observed, particularly among young and poor men, because men start unprotected sexual intercourse as early as 15 years of age [12]. One in six men aged 15-49 has genital herpes, an incurable viral infection [12]. Reported rates of chlamydia and gonorrhea, which are treatable bacterial infections, are highest among younger men, peaking at 500-600 new cases per year per 100,000 men in their early 20s [5, 6, 12]. The most susceptible men are those who are not circumcised because of their foreskin. The foreskin contains large numbers of dendritic cells, which are a target cell for HIV and other STIs. The foreskin may also act as a reservoir for sexually transmitted pathogens that could lead to urethritis [4].

Based on their susceptibility, men become carriers of STIs and can easily transmit infections to their female partners. Men are often reluctant and delay seeking medical help when experiencing STI signs and symptoms [1-3, 10, 13]. This type of behaviour is very worrying, since men are often the decision makers in relationships and sexual practices [14]. The delays in health seeking behaviour can be viewed from a gendered perspective. For example, in the UK empirical evidence supports the theory that men are less likely to use health services and seek help from health professionals in comparison with their female counterparts [15].

According to the previous studies, there are various reasons men delay seeking treatment [1, 10, 15]. Among others, is less severity of symptoms which play a vital role in delaying early treatment seeking, as most men would underestimate seriousness of the disease [2, 3, 16]. It is also argued that the lack of knowledge about STIs is one of the factors that result in delay in seeking treatment, since men underestimate the extent of the risk [2]. Furthermore, other reasons cited include the stigma associated with STIs, long waiting time, judgemental staff, social implication of being seen as an STI patient and lack of privacy [1]. Some factors that could influence where people go for treatment include patient characteristics, such as education, income, age, sex, religion and marital status [2]. The characteristics of the healthcare system could also influence patient choice, such as their geographic distribution, availability of support services, quality of care, convenience and privacy [2]. Cultural beliefs about STIs also influence the choice of the source from which to seek help subsequent to an infection, since in some cultures, diseases thought to be transmitted by sexual intercourse are regarded as most effectively treated

by traditional healers [1]. Social stigmas regarding STIs are probably the most significant barriers to seeking care. Stigmatization may lead to increased inhibition, or fear of seeking services, or of informing sexual partners [17].

Despite the wide range of reasons for the delay in health seeking behaviour, there are consequences that are endured by those who delay seeking treatment when experiencing STI signs and symptoms [10]. The long duration of infection, untreated ulcerative or non-ulcerative infection can increase the chances of re-infection, increasing chances of HIV infection transmission by up to 10 times and more, causing severe illness and an increased rate of mortality and infertility [3]. In addition, the psychological and emotional consequences due to social stigmatization are endured by most patients, since they fear seeking treatment because STIs are often associated with promiscuity and risky sexual behaviour [17].

In view of the consequences as a result of delayed treatment seeking, there is a need to understand the health seeking behaviour of men with sexually transmitted infections. Previous research has only focused on the general determinants of health seeking behaviour such as social class, gender, and availability and organization of health services, without linking this to an understanding of how and why men make these decisions about their health [2, 15]. Meanwhile, there is evidence suggesting that early recognition of symptoms, early presentation to health facilities and compliance with effective treatment would reduce the spread of treatable STIs [1, 2, 10].

When we are aware of the disparities and the factors that influence men's decisions to seek medical treatment, it will be easier to identify why and where men go for treatment other than to the medical health care services. Ascertaining the reasons behind these decisions will reveal whether the choices are influenced by the characteristics of the health care provider, or the perception of effectiveness of the treatment provided, or other factors like cultural issues [1, 2, 10].

Therefore, understanding the determinants of delay in seeking health care among men with STIs, could assist in developing health education initiatives and public health programmes to control STIs and, in turn, HIV [2, 10].

1.2 Problem statement

There are 11 million cases of sexually transmitted infections that occur in South Africa per year, in which KwaZulu-Natal had the highest incidence rate of 6.3% in 2010/11 [29]. The eThekwini district has the highest burden of STIs, with an incidence rate of 6.5% that is higher than that of all the other metros in South Africa, and even higher than the average incidence rate of South Africa (3.9%) [28]. Furthermore, nine out of KwaZulu-Natal's eleven districts were amongst the ten districts with the highest incidence

rates of STIs in the whole country [18]. These infections include syphilis, gonorrhea, trichomoniasis, chlamydia and urethritis that can be easily treated [1, 2].

Few studies were identified, from published literature, that were conducted in South Africa pertaining to the delay in heath seeking behaviour of men with STIs. There is a paucity of literature published pertaining to the health seeking behaviour among men with STIs in KwaZulu-Natal and the eThekwini. Therefore, it is vital to conduct a study in order to determine the factors associated with health seeking behaviour among men in the eThekwini area.

KwaMashu Community Health Centre treated 7160 new STI episodes in the 2013-2014 financial year, based on the statistics provided by the District Health Information System. While Prince Mshiyeni Gateway Clinic had a total headcount, age 5 years and older, of 10 2233 in the same financial year, there were 7156 cases of STI patients consulted. Given the high burden of STIs (6.5%) and 15 6974 new episodes of STIs treated in the eThekwini district, it is essential to identify the factors associated with health seeking behaviour in men with STIs in the eThekwini area.

1.3 Significance of the study

This study aimed to determine the factors associated with the health seeking behaviour in men aged 18-49 years, presenting with Sexually Transmitted Infections attending Prince Mshiyeni Gateway Clinic and KwaMashu Community Health Centre in 2014. In determining the health seeking behaviour, the study aims to find out from which sources men prefer to seek advice or treatment and why, and how long they remain with symptoms of a STI before seeking help.

1.4 Specific objectives

1. To describe the socio-demographic profiles of men presenting with Sexually Transmitted Infections at Prince Mshiyeni Gateway Clinic and KwaMashu Community Health Centre.

2. To investigate factors associated with health seeking behaviour among men presenting with sexually transmitted infections at Prince Mshiyeni Gateway Clinic and KwaMashu Community Health Centre.

1.5 Format of this dissertation

Chapter two presents the literature review

Chapter three discusses the methods used in this study.

Chapter four presents the results of the study.

Chapter five covers the discussion of the results.

Chapter six presents the conclusions.

The appendices present letters of permission for the conduct of the study, the study instruments used for data collection and the ethics certificates.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter presents literature relevant to the study. The literature review provides the evidence of factors associated with a delay in seeking care for STIs. The literature review also discusses previous research on this topic and it is from this information that the researcher noted that limited research has been conducted in KwaZulu-Natal.

The literature review for this paper was conducted using: PubMed; Ebsco Host engines – Academic search complete, Medline, Health Source and Health Source Nursing / Academic Edition and Google Scholar. The time period for all the studies utilized was from the years 2000 to 2015. Search words used were: health seeking behaviour, health seeking behaviour in men, health seeking behaviour in men with STIs, role of men in sexual and reproductive health and epidemiology of sexually transmitted infections.

2.2 Defining Health Seeking Behaviour

Health seeking behaviour is defined as any activity that is undertaken by individuals who perceive that they have a health problem or are ill, for the purpose of finding appropriate treatment [2, 10, 19]. For the purpose of this study, health seeking behaviour for STIs is defined as an act of seeking medical help for treatment, or advice and health education from healthcare facilities, once, in this case, a man experiences signs and symptoms of STIs such as burning urine in micturition, herpes, warts, blisters, sores, and the swelling of his private parts. Such medical help is sought in order to get relief from a symptom or illness within three days of the manifestation of these symptoms, and is influenced by factors including cultural, socio-demographic, economic, physical and financial accessibility, and healthcare services [10, 19].

Health seeking and treatment seeking behaviour have been used interchangeably in this study. Advising about health seeking behaviour includes advice about health issues to healthy individuals, including screening and health education. Treatment seeking behaviour is mainly seeking treatment of signs and symptoms of illness, and looking for treatment to help relieve symptoms like pain and disability. Management of STIs includes both concepts, such as relieving pain, treating signs and symptoms, and health prevention and promotion, through health education, counselling and syndromatic management [2].

2.3 Factors associated with health seeking behaviour

Health seeking behaviour is a phenomenon that is undertaken by individuals, but factors influencing or driving humans to seek health may differ, depending on factors such as socio-economic status, culture, biological factors, marital status, ethnic background, and so forth [20]. In order to understand the factors associated with their health seeking behaviour, it is important to discuss the role of men in sexual and reproductive health, the patterns and predictors of health seeking behaviour in men generally and in men with STIs, and how other studies describe the factors influencing health seeking behaviour of men.

2.4 Role of men in sexual and reproductive health

Men often play a dominant role in decision making in a relationship between partners [14]. The role is influenced by gender inequalities structured by cultures and societies which determine how sexual interactions are negotiated [21]. The decisions men make may result in ill effects, as a result of their risky sexual behaviour, on the health of women and children [14]. As a result of socio-cultural and economic factors, women generally rely on men's decisions when it comes to sexual practices (4). This practice disadvantages women, since they are more susceptible physiologically to viral and bacterial agents which men can easily transmit to them [4].

According to Kumar, men desire more children, oppose family planning, while showing no interest and lacking information regarding health issues, and there is little communication between the sexes [22]. Furthermore, men tend to disregard sex education and sexual health, resulting in wider negative social and health consequences [22]. It is unclear why men behave in such a manner, therefore it is necessary to understand men from their own point of view in order to know why and how they make decisions pertaining to their sexual health.

2.5 Patterns and predictors of health seeking behaviour of men

Globally, researchers have revealed that men are generally less likely to seek medical help or utilize available health services when experiencing health problems [1, 15, 23]. Galdas et al. reported that men ignored signs and symptoms of illness [15]. When responding to the questionnaires in a study by Galdas et al., 64% of men agreed that small illnesses can be fought off, while 52% always ignore signs and symptoms, thinking that they will vanish automatically; 75% will wait until they are very ill before looking for medical help [15].

Sometimes traditional beliefs such as the "evil eye", satan and witchcraft play a significant role in delayed health seeking behaviour by men [24]. For example, in a TB study done in rural Ethiopia, most men did not visit health care services, since they believed that TB was caused by the "evil eye", satan and witchcraft. In some instances, men only seek health care when treatment from the informal health sector

like over the counter medications, chemist shops, street vendors and traditional medicines fails [24]. However, in contrast to these findings, there are men who seek medical help early and in proper health facilities [25]. In a retrospective study done in Northern KwaZulu-Natal, 88% of men sought care from a public doctor or clinic [25]. Case et al also reported that of those who had fallen ill, 97% had some contact with Western medicine, either through a public clinic or a private doctor. In this study only four cases were reported to have sought treatment from a traditional healer [25].

Sometimes men tend to seek medical help from traditional healers [16]. This type of health seeking behaviour is also associated with age [23]. Case et. al found that men in their late twenties tend to seek treatment from traditional healers, and this declines as men get older [25]. In addition, education plays a vital role in determining where men seek medical help [25]. Better educated people are more likely to consult a public or a private doctor, and to take non-prescribed self-medication, since each additional year of schooling is significantly associated with an increase in the probability of seeing a private doctor [25].

Furthermore, research that has been conducted suggests that the severity and nature of the symptoms may influence health care seeking behaviour among men [2]. A study done in Uganda concluded that the severity and nature of the symptoms may influence a person's decision to delay his health care seeking behaviour, since clients who had genital discharge sought care late as compared to clients who had sores over genitalia [2]. The findings suggest that most men only seek help when they have severe symptoms and complications, possible due to lack of knowledge [2]. This delayed health seeking behaviour, secondary to less severe symptoms, has been associated with lack of knowledge, limited access to health services, and various other reasons such as health worker's attitudes. The other noted reasons include socio-cultural, economic and gender issues [1, 2, 10].

In addition to the reasons mentioned above, it has also been noted that men with STIs delay seeking medical help because they feel embarrassed, and do not want to appear foolish and weak [2]. Men with STIs delayed seeking medical help because they wanted to self-medicate before consulting a doctor [2]. The stigma and fear due to the diagnosis of an STI, lack of privacy and confidentiality, the unavailability of other care options, and perceived poor quality of care were among the factors impeding treatment seeking from public facilities for men with STIs [1, 2]. It is, therefore, important to determine whether health service related factors contribute to delayed health seeking behaviour amongst men.

A study conducted in Ghana found that in most developing countries self-treatment and seeking medication from the informal health sector is the first thing men do when they experience STI symptoms [2]. Men in South Africa generally seek medical care from a sangoma, inyanga or umthandazi before turning to professional medical help in proper health facilities [10, 25]. Men with STIs believe that

traditional healers are better to use because they offer expedited treatment, are closer, at a more convenient location, offer more privacy than public clinics, and they also do not require them to bring their partners along [26]. Most men delay seeking help or rather hide their infections until the later stage of the infection because they fear their partners, since they are likely to be infected through infidelity [1, 26]. Despite the health services available to men, they still underutilize or do not use the abundant health services available in South Africa [1]. This study is therefore aiming to ascertain the reasons by asking questions that also investigate the reasons behind men's decisions to choose their preferred health provider.

Men with STIs tend to choose their health service providers based on the care they receive in the respective facilities. For example, in a study done in two provincial hospitals in KwaZulu-Natal the results revealed that female nurses' rudeness, prejudice and judgmental attitudes prevented some men from seeking medical help [27]. Clinic times were highlighted as a barrier for most men, since clinics operate during office hours only. Men who have temporary jobs cannot be absent from work, and are therefore deterred from attendance [27]. Unfriendly behaviour from clinic staff has also led to a perception that public clinics are inhospitable toward men [26, 27].

2.6 Conceptual framework: Factors contributing to delayed health seeking behaviour.

The conceptual framework that was adopted to underpin the study is developed from the literature review. The conceptual framework outlines factors associated with delayed health seeking behaviour. All these factors have been found in the literature to be associated with health seeking behaviour.

This conceptual framework begins with recognition of signs and symptoms of an STI, and is based on two stages that outline factors associated with health seeking behaviour, which comprise of distal and proximal factors. Distal factors include predisposing factors such as age, education, marital status, employment status, psychosocial issues, biological and cultural factors that determine a man's decision to seek medical help. Immediately a man experiences a sign or signs of an STI, the factors mentioned above play a significant role in his decision to seek medical help [2].

Moving away from the distal factors, are the proximal factors that include personal and health service characteristics towards perceived illness. Personal characteristics include knowledge of an STI, beliefs and attitudes towards choice of the health facility, perceived severity of illness, perceived benefits of seeking medical help and perceived susceptibility of acquiring an STI. Whilst health service characteristics include accessibility to health services, communication by healthcare workers (rudeness), feelings of acceptability by men, perceived standard and quality of care from health workers, and cost of the health services.

Once a person is motivated to seek medical help, he then chooses a health service that he believes will help him cure the disease. A person can choose traditional or modern health facility, a drug seller in a pharmacy or on the streets, or get a natural herb from the veld by himself. Once the choice is made, it depends on the individual man whether he seeks help immediately or later when the disease is worse, based on the factors mentioned above. Therefore, the outcome variable would be delayed or early health seeking behaviour.

CONCEPTUAL FRAMEWORK

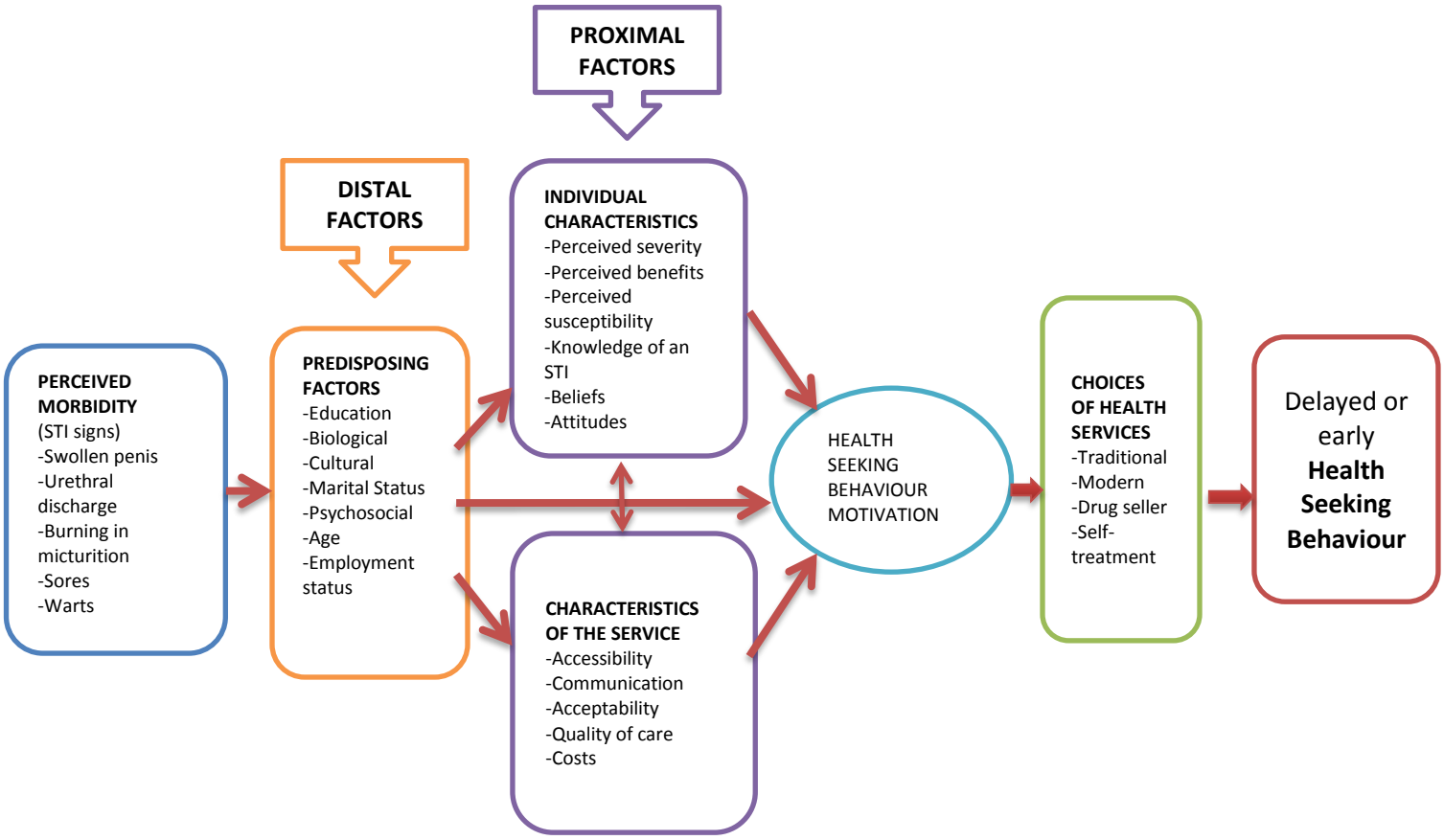

Figure 2.1 Conceptual framework – factors contributing to delayed health seeking behaviour

2.7 Conclusion

The literature reviewed reveals that many researchers focus only on the general determinants of health seeking behaviour and little is known on understanding how and why men make decisions about their health. There is a need to develop behavioural interventions with the aim of empowering clients with increased knowledge and early recognition of STI signs and symptoms that promote early health seeking behaviour [28]. It is imperative that the public health sector finds creative approaches to providing healthcare services that are user-friendly for men, such as offering men's health services during the nights at clinics. Also, service delivery personnel should have appropriate qualities and skills, such as familiarity with men's sexual health issues [4]. This study hopes to make a contribution towards the development of effective programmes that can reduce STIs and HIV infections among men in the eThekwini area and South Africa.

CHAPTER 3: METHODOLOGY

3.1 Introduction

The research methodology is discussed in this chapter. The discussion includes the study setting, the study period, the study population, the variables measured in the study, the data collection procedures and instruments, the measures taken to ensure study validity, data management and storage processes, data analysis, study limitations and the ethical considerations in this study.

3.2 Study setting

The study was conducted in Prince Mshiyeni Gateway Clinic and KwaMashu Community Health Centre in the eThekwini area, KwaZulu-Natal. Prince Mshiyeni Gateway Clinic caters for patients from south of eThekwini, the majority from Umlazi, Makhutha and, Folweni townships and the surrounding rural areas. KwaMashu Community Health Centre caters for patients from north of eThekwini, the majority from KwaMashu and Ntuzuma and the surrounding rural areas. Both clinics cater for patients referred from local clinics and self-referrals. Patients presenting to both clinics are attended to on the same day.

3.3 Study period

The study was originally planned to be conducted over a period of two weeks in each research site. Due to the limited number of patients during the data collection period, the study was extended to one month in each site.

At KwaMashu Community Health Centre, the study was conducted from 24 March 2015 to 17 April 2015. At Prince Mshiyeni Gateway Clinic, the study was conducted from 28 April 2015 to 29 May 2015.

3.4 Study design

An observational, cross-sectional, descriptive study design with an analytic component was implemented. This study design was selected to meet the objectives of the study.

3.5 Target Population

The target population is men between 18 and 49 years of age with sexually transmitted infections and living in the Durban Metro, KZN.

3.6 Study Population

Men presenting with sexually transmitted infections, attending at Prince Mshiyeni Gateway Clinic and KwaMashu Community Health Centre were the focus.

Inclusion criteria: all men presenting with STI, from18 to 49 years of age.

Exclusion criteria: all men above 49 and below 18 years of age, as well as mentally challenged men

3.7 Study sampling strategy and sample size

Systematic sampling was employed to select men attending both clinics. Participants were screened by nurses and once identified to have an STI, every third participant referred to research assistants to complete a questionnaire. The sample size required was 130 based on an 8.3% STI incidence rate in KwaZulu-Natal. A sample of 150 participants was recruited, of which 134 answered questionnaires adequately, 65 participants were from KCHC and 69 participants from PMMH. Epi Tools sample size calculator, with 5% precision level, and 80% statistical power were used to determine the sample size.

3.8 Data sources

3.8.1 Measurement Instruments

Standardized interviewer-administered, anonymous, confidential questionnaires consisting of closed-ended questions were used to collect information. Questionnaires were adapted from questionnaires on previous quantitative and qualitative studies that had investigated health seeking behaviour of men presenting with sexually transmitted infections.

Variables measured in the questionnaire (Refer to addenda 7.1.1)

- Demographic information:
  personal information of participants in terms of their age, racial group, residential area, marital status, educational level, employment status and religion
- Factors associated with health seeking behaviour:
  cultural, economic, geographical, environmental and psycho-social factors and an exploration of how these factors influence men in seeking treatment for STIs
- Knowledge about STIs:
  to determine men's knowledge about STI modes of transmission, and preventive measures in order to measure if lack of knowledge delays or prevent them from seeking treatment
- Beliefs and attitudes towards seeking treatment:
  to explore men's beliefs and attitudes towards seeking health remedies in order to determine the reasons why and when men decide to seek treatment
- Health system factors
  to investigate issues related to public health services in order measure factors that delay or prevent men from seeking treatment in healthcare centers
- Sexual behaviour

to measure association between sexual behaviour and factors associated with health seeking behaviour

3.8.2 Data collection technique

Standardized interviewer-administered anonymous questionnaires were administered by two trained research assistants, one in Prince Mshiyeni Gateway Clinic and the other one in KwaMashu Community Health Centre, with overall help by the principal investigator. Participants were screened by nurses, and once diagnosed with an STI, were referred to a research assistant in a private room provided by the unit manager. Nurses did not participate in administering of questionnaires. Participants were given a choice to answer the questionnaire on their own or be assisted by a research assistant. Prior to data collection the questionnaires were translated into Zulu, and translated back into English for clarity.

3.9 Measures to ensure validity and reliability of the study

3.9.1 Internal validity

*To reduce 'Information bias'***,** the questionnaire comprised of multiple questions that were developed differently but required similar responses. Anonymous questionnaires encouraged honest answers. Information and interview bias was reduced through the training of research assistants so that all the questions were introduced in a similar way. To meet content validity, questionnaire was designed based on various standardized questionnaires.*To reduce 'Selection bias'***,** the data were collected during the morning until the facility closed for a period of one month in both clinics. The sampling technique of systematic random sampling that was used to select the patients reduced the selection bias.

3.9.2 External validity/ generalizability

Both clinics cater for men living in urban, townships and rural areas in and around Durban in KZN (from the south to the north of Durban). The study will be generalized only to men with sexually transmitted infections, who attended the two clinics, and living in urban and rural areas around eThekwini. The study considered users of public health facilities and may not represent those who use private health facilities.

3.10 Data analysis

StataIC 13 was used to analyse the data. Descriptive statistics, in the form of frequency (count) and percentage, were computed. Pearson's chi-square and Fisher's exact were used for inferential statistics to determine whether or not the association between the variables was significant. Simple and multiple logistic regressions, as well as adjusted odds ratio were performed to assess the odds ratio. A p-value < 0.05 was considered to be statistically significant at the 95% level.

3.11 Data management and storage

Data were collected by two trained research assistants who checked and handed the data questionnaires to the principal investigator daily. The numbered questionnaires were collected and kept in a locked cupboard by the principal investigator.

The data were coded and entered into an Excel spreadsheet. There were no names or identification numbers on the data collection tools to ensure anonymity of the study participants. Entry of the data into spread-sheets was supervised by the biostatistician to ensure consistency in the data entry. The spread-sheets were imported into StataIC13 statistical software for analysis. Electronic data were stored on a password protected file on the personal computer of the principal researcher and back-up copies were stored on a flash drive that was kept under lock and key. The principal researcher was responsible for storing the data safely in a locked cupboard.

3.12 Ethical considerations

The researcher obtained approval to conduct the study from the Department of Health.

The Biomedical Research Ethics Committee (BREC) granted ethics approval.

Each study participant was provided with a written informed consent and information sheet. For the participants who could not read and write, verbal informed consent was obtained. The information sheet detailed the purpose of the study and reassurance that participation was voluntary, and anonymity and that confidentiality would be maintained at all times.

Also implemented :-

- respect for the rights of the participants
- honor towards the requests and restrictions of the research site
- report of the research fully and honestly
- undertake to reported the results of the study to the hospital and clinic on completion of the study

3.13 Summary

This section described the methodology used in this study. This includes the study site, the study design, the study period, the study population and sampling. It described the variables measured in the study, the data collection procedures and instruments, the measures taken to ensure study validity, data management and storage processes, data analysis, study limitations and the ethical considerations in this study.

CHAPTER 4: RESULTS

4.1 Introduction

This chapter presents the results of the study according to the study objectives. Demographic characteristics and factors associated with the health seeking behaviour of the participants enrolled in the study are reported. The association between independent variables and delayed health seeking behaviour are identified and analysed.

4.2 Sample size

One hundred and fifty (150) questionnaires were administered, of which one hundred and thirty four (134) were adequately completed, yielding an 89% response rate.

4.3 Descriptive data analysis

4.3.1 Demographic information of the study population

The demographic distribution of the participants is shown in Table 4.1. associations made between demographic profiles and delayed health seeking behaviour. There were no statistically significant differences, but the majority of the participants were single, living in townships, Christian, aged between 26 and 35, and a third of participants were full-time employed.

Table 4.1 Socio-demographic profile of participants attending Sexual Transmitted Infection clinic versus delayed health seeking behaviour, (number, %) n=134

Demographic profile	Number (Percentage) n(%)	p-value
Age (years)		
18 – 25	44(32.8)	
26 – 35	55(41.0)	
36 – 45	25(18.7)	
46 – 49	10(7.5)	0.770
Place of residence		
Urban / city / sub-urban	3(2.5)	
Township	82(67.8)	
Rural	6(5.0)	
Informal settlement	27(22.3)	
Peri-urban	3(2.5)	0.171
Religion		
Muslim	2(1.5)	
Shembe	20(15.3)	
Christian	104(79.4)	
African traditional	5(3.8)	0.530
Educational level		
Primary school	6(4.5)	
Secondary school	96(71.6)	
Tertiary level / college	29(21.6)	
No education	3(2.2)	0.585
Marital status		
Single	105(78.4)	
Married / Cohabiting	27(20.2)	
Widowed	2(1.5)	0.954
Employment status		
Full time work	48(35.8)	
Part time work	43(32.1)	
Not employed	28(20.9)	
Retired	2(1.5)	
Student	13(9.7)	0.075

Level of significance $p < 0.05$
*statistically significant

4.3.2 Factors associated with men's health seeking behaviour

Table 4.2 shows the factors associated with men's health seeking behaviour. Ninety percent (90%) of the participants sought care from modern health facilities. The majority of men (87.3%) did not have a problem regarding distance in getting to the clinic (p=0.038), but this was the only factor for which statistically significant differences were found.

Table 4.2 Factors associated with men's health seeking behaviour versus delayed health seeking behaviour, (number, %) n=134

Factors associated with men's health seeking behaviour	Number (Percentage) n(%)	p-value
Health seeking behaviour choice		
Traditional healers	14(10)	
Modern health facilities	120(90)	0.144
Culture influences seeking medical help?		
Yes	16(11.9)	
No	118(88.1)	0.799
Going to the clinic makes you feel less of a man?		
Yes	29(21.6)	
No	105(78.4)	0.566
Lack of money prevents you from going to the clinic?		
Yes	9(6.7)	
No	125(93.3)	0.221
Distance hinders you from getting to the clinic?		
Yes	17(12.7)	
No	117(87.3)	0.038*
Find it difficult to get transport to the clinic?		
Yes	13(9.7)	
No	121(90.3)	0.270
Clinic visits		
First visit	42(31.3)	
2nd visit	37(59.0)	
3rd visit	27(20.2)	
4th visit	7(5.2)	
5th and above visits	21(15.8)	0.363

Level of significance $p < 0.05$
*statistically significant

4.3.3 Knowledge about sexual transmitted infections

Table 4.3 shows participants' knowledge about STIs. The majority of the participants were knowledgeable about different types of STIs, the risk of contracting STIs and protection methods used to prevent STI infections. There were statistically significant differences found in men's knowledge regarding signs of STIs when noticed for the first time, and of HIV status (p = 0.036 and 0.001 respectively).

Table 4.3 Comparison of men's knowledge of sexually transmitted infections versus delayed health seeking behaviour, (number, %) n=134

Knowledge item	Number (Percentage) n(%)	p-value
Know different types of STIs?		
Yes	106(79.1)	
No	28(20.9)	0.357
Aware of STI signs when first noticed?		
Yes	81(60.5)	
No	53(39.5)	0.036*
Know you are at risk of getting an STI?		
Yes	71(53)	
No	59(44)	
Don't know	4(3)	0.639
Partner has the same infection?		
Yes	28(20.9)	
No	41(30.6)	
Don't know	65(48.5)	0.672
Told the partner about the infection?		
Yes	79(59)	
No	55(41)	0.960
Can you get an STI by unprotected sex?		
Yes	118(88.1)	
No	16(11.9)	0.799

Level of significance $p < 0.05$
*statistically significance

Continuation…….. Table 4.3 Comparison of men's knowledge of sexually transmitted infections, (number, %) n=134.

Knowledge item	Number (Percentage) n(%)	p-value
Did you use a condom last time you had sex		
Yes	42(31.3)	
No	92(68.7)	0.225
Can you get an STI by multiple partners?		
Yes	114(85.1)	
No	20(14.9)	0.772
How often do you use a condom to be protected		
At every sexual encounter	116(86.6)	
At most sexual encounters	6(4.5)	
At high risk encounters	8(6)	
Don't know	4(3)	0.222
Do you know HIV status?		
Yes	87(64.9)	
No	47(35.1)	0.001*
What is your HIV status?		
Positive	22(16.4)	
Negative	66(49.3)	
Don't know	46(34.3)	0.001*

Level of significance $p < 0.05$
*statistically significant

4.3.4 Beliefs and attitudes towards seeking health remedies

Table 4.4 shows beliefs and attitudes towards seeking health remedies. The majority of men considered their illness to be mild ($p<0.005$). Over half of the participants had been treated for STIs before. Many participants still seemed to believe that STIs are caused by witchcraft, since 33.6% reported visiting traditional healers when suspecting that their infection was caused by witchcraft. There were significant differences in men's delay before visiting the clinic with over half waiting four or more days ($p<0.005$).

Table 4.4 Beliefs and attitudes towards seeking medical help versus delayed health seeking behaviour, (number, %) n=134

Belief and attitude about health seeking behaviour	Number (Percentage) n(%)	p-value
Perceptions of severity of illness		
Mild illness	81(60.5)	
Moderate illness	43(32.1)	
Severe illness	10(7.5)	<0.005*
Frequency of seeing a traditional healer		
Never	84(62.7)	
Once a year	36(26.9)	
2-6 times a year	9(6.7)	
7 or more times a year	5(3.7)	0.004*
Why would you visit a traditional healer?		
When western medicine not helping	13(9.7)	
When suspect witchcraft	45(33.6)	
Not applicable	76(56.7)	0.438
Have you been treated for the same infection before?		
Yes	72(53.7)	
No	62(46.3)	0.521
How long do you wait before coming to the clinic?		
1 – 3 days	63(47)	
4 – 6 days	40(29.9)	
7 – 10 days	24(17.9)	
11 days and more	7(5.2)	<0.005*
Can you get an STI by witchcraft?		
Yes	32(23.9)	
No	102(76.1)	0.427

Level of significance $p < 0.05$
*statistically significant

4.3.5 Health system factors

Table 4.5 describes the health system factors associated with participants' health seeking behaviour. Over half of the participants stated fear of stigma from staff as one of the reasons for not coming to the clinic. The majority of the participants felt that the government is doing enough to cater for men's health problems (p=0.041), but this was the only factor for which statistically significant differences were found.

Table 4.5 Health system factors associated with men's health seeking behaviour versus delayed health seeking behaviour, (number, %) n=134

Factors associated with health system	Number (Percentage) n(%)	p-value
Do health workers' attitudes prevent you attending the clinic?		
Yes	37(27.6)	
No	94(70.2)	
Unsure	3(2.2)	0.553
Do clinic staff talk to you in a proper manner?		
Yes	121(90.3)	
No	7(5.2)	
Unsure	3(2.2)	0.155
Do you experience any problems when visiting the clinic?		
Yes	44(32.8)	
No	88(65.7)	
Unsure	2(1.5)	0.365
Reasons for not coming to the clinic:		
Fear staff stigma and attitude	76(56.7)	
Don't get time off work	28(20.9)	
Prefer going to the traditional healer	3(2.2)	
Don't believe clinic can help	2(1.5)	
Nothing	25(18.7)	0.403
Is government doing enough to cater for men's problems		
Yes	84(62.7)	
No	22(16.4)	
Don't know	28(20.9)	0.041*
Did you experience a problem spending too much time waiting?		
Yes	89(66.4)	
No	45(33.6)	0.159

Level of significance $p < 0.05$
*statistically significant

Continuation…….. Table 4.5 Health system factors associated with men's health seeking behaviour, (number, %) n=134 (Problems experienced by participants)

Factors associated with health system	Number (Percentage) n(%)	p-value
Problems experienced by participants		
Nurses' rudiness (shouting)	9(20.5)	0.234
Waiting for long time	8(18.2)	0.134
Afraid of showing a penis	5(11.4)	0.456
Inability to discuss my sexual problems With a female nurses	8(18.2)	0.234
Long queues	7(15.9)	0.127
Fear of stigma and bad attitudes from Healthcare workers	7(15.9)	0.456
Specify why do you think government is not doing enough		
Few male nurses	9(40.9)	0.254
Few men's clinics	8(36.4)	0.128
Men paying more for their sexual health problems when visiting men's clinics	5(22.7)	0.765

Level of significance $p < 0.05$
*statistically significant

Continuation……. Table 4.5 Health system factors associated with men's health seeking behaviour, (number, %) n=134 (What would you like to see government doing?)

Factors associated with health system	Number (Percentage) n(%)	p-value
Provide more male nurses	22(16.4)	0.122
Provide more clinics at public places	17(12.7)	0.345
Provide free men's clinics	16(11.9)	0.467
STI awareness campaigns at work places, schools and rural areas	15(11.2)	0.167
Opening of clinics at night	18(13.3)	0.567
Do not know	12(8.9)	0.458
Encourage men to go the clinic	19(14.2)	0.678
Encourage men to use condoms	15(11.2)	0.876

Level of significance $p < 0.05$
*statistically significant

4.3.6 Sexual behaviour

Table 4.6 shows men's sexual behaviour associated with health seeking behaviour. The majority of the participants do not use condoms all the time and only use condoms when they are sober (p = 0.030). Most men reported multiple sexual partners. Over fifty percent (54.5%) of the participants stopped using condoms when experiencing erectile dysfunction.

Table 4.6 Men's self-reported sexual behaviour versus delayed health seeking behaviour, (number, %) n = 134.

Sexual behaviour	Number (Percentage) n(%)	p-value
Do you use a condom all the time?		
Yes	17(12.7)	
No	117(87.3)	0.296
Only use a condom when don't trust partner		
Yes	114(85.1)	
No	20(14.9)	0.845
Faithful to the partner		
Yes	33(24.6)	
No	101(75.4)	0.072
Only use a condom when available		
Yes	102(76.1)	
No	32(23.9)	0.985
Only use a condom when sober		
Yes	97(72.4)	
No	37(27.6)	0.030*
Only use a condom when have signs of infection		
Yes	105(78.4)	
No	29(21.6)	0.878
How many partners have you had in your lifetime?		
1-5	19 (14.2)	
6-10	25(18.7)	
11-19	35(26.1)	
20+	55(41)	0.185
Do not use a condom when experiencing erectile dysfunction		
Yes	73(54.5)	
No	61(45.5)	0.813

Level of significance p < 0.05
*statistically significant

4.4 Analytic statistics

4.4.1 Bivariate analysis

4.4.1.1 Associations among independent variables

Table 4.7 shows statistically significant associations ($p<0.05$) between demographic factors and participants' behaviour. Age was significantly associated with the participants aged between 26 and 35 who do not use condoms when sleeping with a virgin. The more educated, the more knowledgeable men were about modes of STI transmission. Marital status was significantly associated with single participants who only use condoms when they do not trust the partner.

Table 4.7 Significant associations between the independent variables, age, residence, education, marital status and Human Immune-deficiency Virus status with men's Sexually Transmitted Infection knowledge, sexual behaviour and delayed health seeking behaviour, n=134

Category	Variables	p-value
Age	Men above 26 years of age attended traditional healers more frequently than younger men	0.008*
	Ages 26-35 mostly tried to first treat themselves prior to seeking medical help	0.031*
	Ages 26-35 mostly only used condoms when they do not trust a partner	0.013*
	Ages 26-35 mostly did not use a condom when sleeping with a virgin	0.001*
Place of stay	Choice of health facility when first experiencing an STI	0.030*
	Choice where participants seek medical advice	0.018*
Educational level	Men with secondary and tertiary education mostly knew that one can get an STI more than once	0.037*
	Men with secondary education mostly knew that one can get an STI through multiple partners	0.019*
	Men with secondary and tertiary education mostly did not use a condom when sleeping with virgin	0.014*
Marital status	Single men mostly first tried to treat themselves prior to seeking medical help	<0.005*
	Single men mostly only used a condom when they do not trust the partner	0.003*
	Single men mostly did not use a condom all the time	0.016*
HIV status	HIV negative men mostly knew about STIs	0.021*
	HIV negative men mostly knew that one can get an STI through unprotected sex	0.041*

*Level of significance ≤ 0.05
All statistically significant

4.4.2 Multivariate analysis

4.4.2.1 Odds ratio of factors associated with delayed health seeking behaviour

Table 4.8 shows the odds ratio of factors associated with delayed health seeking behaviour. Participants who saw a traditional healer more than seven times a year were more likely to delay seeking medical help with an odds ratio of 1.7. The odds of delaying seeking medical help when having severe illness were 10 times higher than for a mild illness. Men who did not know their HIV status were 3.53 times more likely to delay seeking medical help (p=0.001) as men who were HIV negative (OR 1.82, p=0.001). Men who were uncomfortable asking questions (OR 1.77, p=0.043), and men not aware of STI symptoms (OR 2.13, p=0.038) were more likely to delay. Protective factors were not being hindered by distance (OR 0.30, p=0.047) and attending PMMH rather than KCHC clinic (OR 0.30, p=0.001).

Table 4.8 Odds ratio (95% CI) of factors associated with delayed health seeking behaviour, n=134

Variables	Odds ratio	95% CI	p-value
Participants saw a traditional healer more than 7 times a year	1.75	1.07-2.87	0.025*
Participants not faithful to their partners	2.08	0.93-4.63	0.074
Participants not hindered by distance to the clinic	0.30	0.93-0.98	0.047*
Participants not aware of the STI signs for first noticing infection	2.13	1.04-4.34	0.038*
Participants who sought medical help for an STI when having severe illness	10.00	4.24-23.58	<0.005*
Participants who did not know their HIV status	3.53	1.64-7.61	0.001*
Participants who were HIV negative	1.82	1.09-3.04	0.022*
Participants who only used a condom when sober	0.43	0.19-0.93	0.032*
Participants who did not feel comfortable asking questions	1.77	1.02-3.07	0.043**
Participants who preferred to go to traditional healers	2.19	0.98-4.91	0.056**
Participants who sought medical help from modern health facilities	0.41	0.12-1.39	0.154
Participants in PMMH Gateway clinic compared to patients in KCHC	0.30	0.15-0.62	0.001*

Level of significance < 0.05
*statistically significant
**borderline significant

4.4.2.2 Multi logistic regression of factors associated with health seeking behaviour

Table 4.9 shows multi logistic regression of factors associated with health seeking behaviour ($p<0.2$). Participants in rural and informal settlement areas were twice as likely to delay seeking treatment compared to those from townships and urban areas. Multi logistic regression analysis did not differ significantly from the crude odds ratio.

Table 4.9 Multi logistic regression of factors associated with delayed health seeking behaviour, n=134

Variables	Odds ratio	95% CI	p-value
Participants from rural and informal settlement areas compared to those from townships and urban areas	2.32	1.04-5.19	0.040*
Participants who felt they were not spending too much time waiting in the clinic	0.52	0.17-2.26	0.029*
Participants who were not faithful to their partners	4.26	0.89-20.14	0.068
Participants who sought medical help for an STI when having severe illness	12.26	3.14-47.94	<0.005*
Participants who did not know that they can get an STI even if there are no symptoms	0.22	0.54-0.86	0.030*
Participants who only use a condom when sober	0.18	0.04-0.85	0.030*

Level of significance < 0.05
*statistically significant

4.4.2.3 Adjusted odds ratio of delaying health seeking behaviour between participants in Prince Mshiyeni Gateway Clinic and KwaMashu Community Health Centre

The crude odds ratio showed that participants at Prince Mshiyeni Gateway clinic were less likely to delay seeking medical help than those from KwaMashu Community Health Centre (OR 0.30, 95%CI 0.15-0.62, p<0.05). Table 4.10 shows the adjusted odds ratio of delaying health seeking behaviour in participants at Prince Mshiyeni Gateway clinic as compared to that of the participants in KwaMashu Community Health Centre (p <0.05). Participants who were at Prince Mshiyeni Gateway clinic and reported having seen a traditional healer more than seven times a year were 1.79 times more likely to delay seeking treatment than participants who were at KwaMshu Community Health Centre.

Table 4.10 Adjusted odds ratio of delaying health seeking behaviour in participants at Prince Mshiyeni Gateway clinic compared to the participants in KwaMashu Community Health Centre, n=134

Variables	Odds ratio	95% CI	p-value
Participants saw a traditional healer more than 7 times a year	1.79	1.09-2.97	0.022*
Participants not hindered by distance to the clinic	0.48	0.14-1.64	0.239
Participants not aware of the STI signs for first noticing infection	2.0	0.95-4.19	0.066**
Participants seek medical help for an STI when having severe illness	8.23	3.46-19.58	<0.005*
Participants who did not know their HIV status	3.07	1.39-6.78	0.005*
Participants who were HIV negative	1.67	0.98-2.84	0.059**
Participants felt that government is not doing enough to cater for men's health problems	1.19	0.76-1.88	0.428
Participants who only use a condom when sober	0.56	0.25-1.27	0.167

Level of significance < 0.05
*statistically significant
**borderline significant

4.4 Summary

This chapter presented the findings of the study. The analysis included descriptive, bivariate analyses and multivariate analyses. Descriptive statistics were used to provide an overview of the predisposing and enabling characteristics of participants, and of their health seeking choices, in respect of delayed health seeking behaviour for STIs.

Bivariate analyses were performed to reveal the variables that most influence health seeking behaviour, for example age, marital status, educational levels, beliefs, knowledge of STIs, health system factors and sexual behaviour. Multivariate analysis was done to eliminate confounding factors to ensure that associations remain statistically significant. This study found no statistically significant differences on demographic factors. Findings showed that most participants still rely on modern health facilities with few of them attended the traditional healers. Factors associated with health seeking behaviour did not seem to have influence on whether participants delayed health seeking behaviour or not. Participants were knowledgeable about STIs although there were engaging in risky sexual behaviour.

CHAPTER 5: DISCUSSION

5.1 Introduction

This chapter discusses the main findings of the current study. The findings are discussed in relation to the aim and objectives of the study. The objectives of the study were to describe the socio-demographic profile, and to investigate factors associated with health seeking behaviour among men presenting with sexually transmitted infections at Prince Mshiyeni Gateway and KwaMashu CHC STI clinics. The results described are discussed in the light of the existing literature on health seeking behaviour among men with sexually transmitted infections and the conceptual framework used in this study. Conceptual framework was very helpful in identifying the factors associated with delayed health seeking behaviour. It also helped by providing a direction towards delayed health seeking behaviour, although some of the factors did not exactly follow the pathway. For example participants with severe illness were expected to seek medical help early according to the conceptual framework, instead they were 10 times more likely to delay seeking medical help. Conclusions are drawn from the research process and suggestions for further research are also included.

5.2 Results

5.2.1 Knowledge about STIs and perceived morbidity

In this study only 20.9% of participants lacked knowledge about STIs. This lack of knowledge was significantly associated with delayed health seeking ($p = 0.038$). Participants who were not aware of their STI signs and symptoms, or noticing them for the first time, were twice as likely to delay seeking treatment compared to more knowledgeable participants (OR: 2.13; 95%CI: 1.04-4.34; p=0.038). This was also reported in a study done in Ghana, where a significantly high proportion of patients who had not heard of STIs sought treatment late compared to those who had heard of STIs ($p<0.001$) [2]. These findings suggest that participants that are knowledgeable about signs of STIs are more likely to seek treatment earlier. Lack of knowledge about signs and symptoms of STI can be a barrier among men to seeking medical help from health facilities [26]. Men still need essential STI/HIV information, better quality care and non-judgemental health care services [26]. Therefore, STI programme planners and awareness campaigns need to emphasize educating about signs of sexually transmitted infections. It is, however, not clear whether the delay in seeking treatment due to lack of knowledge is secondary to the inability to relate signs to an STI, or just ignorance among participants. Therefore, further research is needed to determine the relationship between lack of knowledge and delayed health seeking behaviour.

The results of this study show that participants who did not know their HIV status were 3.5 times more likely to delay seeking medical help compared to those who know their HIV status. Similar findings were

noted in a study done in Gauteng, where men who did not know their HIV status tended to delay seeking treatment for fear of getting tested, since they knew that were at risk of HIV, but also feared the stigma related to HIV. Some also feared lack of confidentiality about the results [26]. Also noted in this study is that being HIV negative was significantly associated with delayed treatment seeking behaviour (p = 0.022). HIV negative participants were 1.8 times more likely to delay seeking treatment for STIs compared to HIV positive participants. Furthermore, HIV negative participants were those who mostly knew different types of STIs. This type of behaviour may be associated with the phenomenon of feeling relaxed, since participants may assume that symptoms will go away as they are HIV negative.

Multi logistic regression analysis also showed that participants who did not know that they can get an STI even if there are no symptoms were less likely to delay health seeking behaviour (OR 0.22, 95% CI 0.54-0.86, p=0.030). Participants may be seeking treatment earlier without fearing possible testing for HIV, as it has been noted that sometimes men delay seeking help for fear of the results [26]. The majority of participants (79.1%) knew about different types and signs of STIs, especially gonorrhea. This was also confirmed in a study done in Ghana in which the level of knowledge of clients about STIs was as good as 77.8 %. Gonorrhea (35.1%) and syphilis (17.8%) were the most common names reported by the participants [2]. In this study, the majority of the participants knew that they were at risk of getting an STI (53%), 88.1% knew that they can get an STI by unprotected sexual intercourse, while 85.1% knew that they can get an STI through multiple partners. Despite participants' knowledge about STIs, the majority (68.7%) of them visited clinics more than once, in fact, up to five times, suggesting carelessness and ignorance among them, since they had allowed reinfection. A study done in Mpumalanga further noted that relatively high knowledge levels and education does not necessarily mean people are informed about issues and so it is necessary to educate such people about STIs to avoid delayed health seeking behaviour among men [2].

5.2.2 Demographic (predisposing) factors

5.2.2.1 Age

In this study the majority (41%) of participants were between 26 and 35 years of age, suggesting that young people are faced with the risk of acquiring STIs. This was also noted in a study done in Singapore, where the age group distribution of participants showed that the majority (46%) fell between 26 and 35 years of age [17]. The risk of HIV infection is great among this age group, given that 83% of HIV infected persons in South Africa are people younger than 35 years of age [3]. This study found no significant association between the men's age and whether or not they delayed their health seeking behaviour for STIs (p = 0.770). However, age was significantly associated with participants aged 26-35 years, who were the category that mostly used condoms only if they do not trust the partner (p = 0.001),

do not use condoms when sleeping with a virgin (p = 0.001) and who first try to treat themselves before going to the clinic (p = 0.013). A study done in Cape Town also indicated that age was not related to delayed health seeking behaviour [3]. Conversely a study done in Ghana found age to be significantly associated with health seeking behaviour ($p<0.05$), with those aged 26–35years tending to delay seeking care compared with other age groups. The findings of this study may indicate the need for the educational awareness programme planners to target men below 35 years of age in particular.

5.2.2.2 Educational level

The majority (71.6%) of the participants had achieved secondary education. Similar profiles of participants in a study done in Cape Town also noted that the majority of the participants (73%) had a high school education [3]. Although there was no specific level of education, a study done in Mpumalanga also found that a large proportion (66.3%) had attended school [10]. This suggests that most of the participants were literate enough to understand health education and awareness campaigns in the media [2]. In this study education did not seem to have had an influence on the prevention of STIs, as despite 71.6% of them having had relatively high educational levels, there is a high incidence (6.5%) of sexually transmitted infections in Ethekwni district (KZN) [29]. Health policymakers and programme planners also need to address other skills, for example engaging in prevention behaviour such as effective communication with one's sexual partner, refusal to engage in unsafe sex, and proper use of condoms [2].

There was no significant association, however, between the men's educational level and whether or not they delayed their health seeking behaviour for STIs (p = 0.585). This was also confirmed in a study done in Ghana, where there was no significant association between delay in health care seeking behaviour and educational level [2]. However, men with secondary and tertiary education were more knowledgeable about STIs, and that was significantly associated with educational level. KwaZulu-Natal is the epicentre of the AIDS epidemic and men's reported behaviour suggests that there is a gap in getting the message about HIV and other STIs to men [30]. Further research needs to be conducted on the effectiveness of educational and awareness programmes, since there is a high incidence rate of STIs despite the men's relatively high education level.

5.2.2.3 Marital status

In this study, the majority (78.4%) of the men were single. This may be attributed to married men having sex with their wives only (a single sexual partner, thus fewer STIs), or using protection with other partners with the aim of protecting their families [1]. This was also noted in a study done in Mpumalanga in which the majority (78.9%) were single [10]. This may also indicate just ignorance and carelessness among the unmarried participants who may be sleeping with multiple partners [10]. Furthermore, marital status was significantly associated with single men who were those mostly not using condoms all the

time. Therefore, health educational programmes may need to target single men in particular. There was no significant association between marital status and delayed health seeking behaviour (p = 0.954). Similar findings were noted in studies done in Ghana and Singapore, where there were no significant associations found between delay in health-care seeking behaviour and marital status [2, 17]. Therefore, in this study being married or single did not determine whether or not participants delayed seeking treatment for signs and symptoms suggestive of STIs.

5.2.2.4 Employment status

The majority of the participants, about sixty-eight percent (68%), were employed. This may suggest an alternative reason for delaying presentation to the clinics, as a fifth of the participants reported that they did not get time off work. This was also reported in a study done in Singapore, where 32.4% delayed seeking treatment because they did not get time off work [17]. Conversely, in a study done in Mpumalanga, the majority (74.4%) of the participants were unemployed, hence the majority (58.7%) did not delay seeking treatment [10]. There is, however, a need to open clinics, at night since twenty 20.9% of men delayed seeking treatment because they could not get time off work. There was no significant association (p = 0.075) between delayed health seeking behaviour and occupation noted in this study. Similarly, a study done in Ghana found no association between delayed health seeking behaviour and participant's occupation.

5.2.3 Traditional healers and modern health facilities (Beliefs and attitudes towards seeking health remedies)

This study found a significant association between delayed health seeking behaviour and the frequency of seeing a traditional healer (p = 0.025). Participants who visited traditional healers more than seven times a year were 1.75 times more likely to delay seeking medical help compared to participants visiting less frequently. This suggests the need for health education and awareness about the importance of going to the clinic early. In a study done in Gauteng, some men also delayed seeking treatment from clinics because they preferred to go to traditional healers. They did so because they believed that traditional healers offer quicker treatment, are nearer, are at a more accessible locations, and provide more privacy than public clinics [26]. This study also noted that severity of illness was significantly associated with delayed health seeking behaviour (p < 0.05). Although only 7.5% of participants reported seeking medical help, whether from a clinic or a traditional healer, when they have severe illness, they were 10 times more likely to delay seeking medical help compared to participants with mild illness. This may suggest that participants delayed seeking treatment in the hope that symptoms will go away. Conversely, a study done in Ghana found that severity of illness was significantly associated with early health seeking behaviour (p < 0.001). STI clients who had sores over their genitalia sought treatment earlier compared

to those who had only genital discharge. Thus, the clients' perception of genital sores, which were seen as being more serious, compelled them to seek care earlier as compared to the clients with genital discharge, which was not deemed serious [2]. This reflects the influence of the severity of the symptoms over health-care seeking behaviour. Therefore, awareness is needed about early treatment seeking behaviour, and the dangers of waiting until the illness becomes more severe.

Traditional healers are another important source of help, since 10.5% of the participants consulted them. Participants mentioned that Western medicine does not remove the root cause of the problem, but only treats the symptoms, and that traditional medicine removes the root cause. This belief resulted in delayed treatment seeking from the clinics among men, whilst they were still attending traditional healers. Similar beliefs were confirmed in a study done in Gauteng, where participants reported that clinics just treat symptoms, but they will not cure, while traditional healers treat the root cause [26]. These findings suggest a need to provide information to, and train traditional healers on the relationship between HIV/AIDS and STIs, as well as further integrating modern and traditional health systems. In this study 33.6% of the participants reported that they only visit traditional healers when they suspected witchcraft, while 9.7% said that they visited traditionals healer when Western medicine is not helping. This was also reported in a study done in Northern KwaZulu-Natal, where individuals had turned to traditional healers when they believed that Western medicine was failing them [25]. These findings suggest that some men still believe that STIs are caused by witchcraft and, therefore, traditional healers are deemed the best choice of health facility, while delaying getting treatment from the clinics.

Although traditional health facility visits were significantly associated with delayed health seeking behaviour, the majority of participants indicated that they rely on modern health facilities. Most participants (89.5%) reported seeking medical care from modern health facilities (personal observations of data collectors). Even the 10.5% of the participants who reported using traditional healers, did so after they had been to the clinic. This was also noted in a study done in Mpumalanga, in which a large proportion of participants (76.8%) preferred public healthcare facilities, and only fifteen (15%) percent visited traditional healers [10]. However, there were no significant associations noted between modern health facility visits and delayed health seeking.

5.2.4 Condom use and sexual behaviour

This study found that 72.4% of the participants used condoms only if they are sober, meaning that when they are drunk they forget about using the condom. The study, however, found protective significant association between participants who only used condoms when sober and delayed health seeking behaviour ($p = 0.032$). Participants who only used condom when sober were 0.43 times less likely to delay seeking treatment. This behaviour may be encouraged by absence of fear for potential health risks

and complications, since the participants might not have foreseen possibilities of contracting more infections when they were under the influence of alcohol. Meanwhile, people with greater alcohol use indicated high condom failure, thereby increasing their chances of contracting HIV [26].

Despite participants' knowledge about STIs, knowing that they are at high risk of getting infection, and that condoms need to be used at every sexual encounter, the majority (87.3%) of the participants did not use condoms all the time, while 75.4% were unfaithful to their partners. This was also reported in a study done in Mpumalanga, where more than half (57%) of participants continued to engage in sexual activity when they had an active STI, 2.4% with multiple partners and 11.4% without condom protection [10]. This was also noted in a study in Ghana, where eighty percent (80%) of the patients continued to have sex whilst they were experiencing symptoms suggestive of STIs, and 89% did not use condoms [2]. This is worrying, since HIV and STIs are spread through high-risk behaviour such as low condom use [2]. A number of people exposed to STIs in this study could have contracted HIV through this risky behaviour.

In this study, participants displayed ignorance when they were engaging in risky sexual behaviour. Of the participants, 85.1% only used condoms if they do not trust a partner, meaning once the trust is established, (long-term relationship) they stop using condoms. The majority of participants (76.1%) only used condoms if they were available and 78.4% use condoms only when they suspect signs of infection. Forty-one percent (41%) of the participants reported having had more than twenty partners in their life time. In comparison, a study done in Ghana found that twenty one percent (21%) of the participants reported having had two or more sexual partners [2]. Multiple partners in South Africa are common, as a study done in the Western Cape reported, where the majority (57%) of the participants had two or more partners within six months [3]. These findings indicate the need to discourage the idea of having multiple partners by targeting young boys through health educational awareness campaigns at schools and in communities. This also calls for intensifying STI awareness among men, in general public areas like taxi ranks, and at work places. Such campaigns must emphasize the dangers of sleeping with different partners and non-condom use.

This study also found that many (54.5%) men stop using condoms once they experience erectile dysfunction problems. Therefore, free men's health clinics need to be opened in order to attend to men's sexual health problems, as some of the participants recommended to interviewers in this study. Men are often potential carriers of STIs and tend to determine how sexual intercourse practices are conducted in relationships, while they have a high possibility of infecting their partners [14]. There is, therefore, a need for health programme planners to develop strategies that deal with men's attitudes towards their sexual health. Promoting condom use is, therefore, very important in order to reduce the spread of STIs

alongside HIV. However, this warrants further research about the effectiveness of the health education and health promotion-programmes for influencing men's attitudes towards their health, because despite knowing about STIs and their prevention, men still engage in risky sexual behaviour.

5.2.5 Factors associated with health seeking behaviour

Although factors like issues of masculinity, finance, accessibility, transport and weather did not seem to have an influence on the health seeking behaviour of men coming to the clinics, there was a significant protective association between distance from the facility and delayed health seeking behaviour (p = 0.047). Participants who were not hindered by distance to the clinics were less likely to delay seeking treatment (OR: 0.30; 95% CI:0.93-0.98). This may be due to the fact that the clinics in urban areas are more accessible. These findings suggest that easily accessible health facilities can encourage early treatment seeking. Similarly, a study done in Cape Town identified obstacles in help seeking such as lack of money, lack of transport and many others as insignificant concerns for the participants [3]. Conversely, a study done in Kenya found that lack of financial resources, especially among women, played an important role in causing delayed treatment seeking [13]. A study done in Mpumalanga, also identified factors like belief system, economic or financial factors, and accessibility to healthcare facilities as having influenced the actions that were taken by participants when they thought that they had the symptoms of an STI [10]. These findings suggest differences in provision of health services between urban and rural settings, since studies done in Cape Town and Durban were done in urban settings, while those done in Kenya and Mpumalanga were undertaken in rural settings.

5.2.6 Health system factors

Multi logistic regression analysis found significant association between delayed heath seeking behaviour and participants who felt that they were not spending too much time waiting in the clinic, as those participants were less likely to delay seeking treatment (OR 0.52, 95%CI 0.17-2.26, p = 0.029). The findings suggest that improved waiting times can encourage early health seeking behaviour. During the participants' visits to a modern health facility, the majority (84.3%) did not experience any problems. Of those who reported experiencing problems that could possibly delay their health seeking behaviour, the majority reported that nurses' rudeness, and some reported waiting for a long time; afraid of showing their penises; inability to discuss their sexual problems with female nurses; long queues; fear of stigma and bad attitudes from healthcare workers. This is supported by a study done in Gauteng where the most frequently cited barriers to seeking treatment also included long queues, displeasure with health-care providers, and limited information given by providers [26]. Similar findings were also noted in a study done in Ghana, in which participants reported long waiting hours (21.9%), lack of privacy (21.1%) and the stigma of STI only clinics (16.7%) as some of the reasons for delaying care seeking [2]. A study done

in Kenya also reported stigmatization as one of the factors preventing men from seeking medical treatment early [13].

Participants displayed signs of embarrassment to the research assistance and myself, and this had also resulted in delayed presentation to the clinic, because when they were asked what would prevent them from coming to the clinic, they reported that they were afraid of how nurses and other people will look at them. This was also reported in a study done in the UK, where participants were reluctant and delayed seeking help because of feelings of embarrassment.[15]. Further in a study done in Botswana, 39% of the participants were reluctant to seek medical treatment because of embarrassment, fear that their confidentiality would not be respected, and anticipation of a reproaching and judgmental response from healthcare providers [1].

The majority of the participants (62.7%) felt that government is doing enough to cater for men's sexual problems, but some did not share this opinion. Participants who were unhappy complained that there are few male nurses, few men's clinics, and men having to pay more for their sexual health problems when visiting men's clinics. When asked what they would like to see government doing for men's sexual health problems, participants recommended that government provide more male nurses, provide clinics at public places like taxi ranks, offer free men's clinics, undertake STI awareness at work places, schools and rural areas, as well as opening clinics at night, so as to avoid delayed presentations to the health facilities. In a study done in Singapore, it was also cited that not getting time off from work delayed participants from seeking treatment early [17]. Such findings suggest that opening clinics at night can encourage men to seek treatment for STIs early, including working men who cannot obtain time off from work.

5.2.7 Comparison of health seeking behaviour between Prince Mshiyeni Gateway Clinic and KwaMashu Community Health Centre

Participants from both clinics were compared to assess delayed health seeking behaviour between the two clinics. The crude odds ratio showed that participants at Prince Mshiyeni Gateway Clinic were less likely to delay seeking medical help than those from KwaMashu Community Health Centre (OR 0.30, 95%CI 0.15-0.62, $p<0.05$). The adjusted odds ratio showed variations in delayed health seeking behaviour among participants at PMGC and those at KCHC. Participants at PMGC who reported having seen a traditional healer more than seven times a year were 1.79 times more likely to delay seeking medical help than the participants at KCHC. Participants attended PMGC who did not know that they had signs of STI when noticing them for the first time, were twice as likely to delay seeking treatment compared to those attending KCHC. Participants seen at PMGC, who did not know their HIV status were three times more likely to delay seeking treatment compared to those seen at KCHC. The findings of the adjusted odds ratio did not differ significantly from the crude odds ratio. This may indicate similar characteristics

among clients from both clinics. Participants in both clinics were from townships and had similar demographic profiles with only slight variations. No similar studies identified from the literature had compared two or more institutions in one study. Further studies pertaining to health seeking behaviour, and comparing two or more institutions need to be conducted in order to identify any variations among participants from different health institutions, as well as identifying institutional factors that can be associated with delayed health seeking behaviour.

5.2.8 Delayed health seeking behaviour

In this study, delayed health seeking behaviour was defined as presentation to a clinic after three days after noticing STI signs and symptoms, and 53% of men were classified as reporting delayed health seeking behaviour, since they waited for more than three days before seeking treatment after noticing signs of STI. This delay in presentation to a clinic was reported in other studies, even though there was a difference in time intervals [1-3, 10, 27]. Similar findings were observed in a study done in Ghana, where sixty-four percent (64%) of the patients delayed for more than four weeks before seeking treatment for a possible STI [2]. A study done in Kenya, Nairobi, also noted that the patients had waited for one week, on average, before seeking medical care [13]. This also shows that despite men being informed about STIs and having easy accessibility to health services, they still delay seeking medical treatment.

5.3 Limitations of the study

The study findings are possibly limited by the fact that only those who experienced STI symptoms and sought care at the clinics were included. Those who did not seek care may have different characteristics and this could limit the generalization of the study findings. Also the inclusion of symptomless, out-of-facility participants might be more reflective of health seeking behaviour in the community.

This was a cross-sectional study, thus the direction of the association could not be determined. Furthermore the structured questions did not allow an in-depth narration of the participants' experiences, and the reasons for the severe delay in health seeking behaviour could have been explored if a qualitative in-depth study had been done.

Since both sexual activities and condom usage were self-reported while participants were symptomatic, this may have led to recall bias and socially desirable answers due to embarrassment.

CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

This study has provided important information regarding the health seeking behaviour of men with STIs. The findings of the study show a significant shift in the paradigm of men's health seeking behaviour. The majority of the factors that were used to deter men from seeking medical help are no longer significantly preventing them. The health workers' unpleasant attitudes, however, remain an obstacle to men accessing health care services. There has been a vast improvement in the delivery of health services, which encourages men to seek medical assistance early, and also to inform them about STIs. It is worrying, however, that there is still a high rate of STIs among men despite these improvements, and that the majority of men still engage in risky sexual behaviour that leads to the increase in STIs, and HIV. There is, therefore, a need to deal with men's attitudes towards their sexual health, because their knowledge and understanding about infections is inadequate. There is the possibility of underutilization of the information or lack of implementation of policies derived from the research findings, but this study hopes to make a contribution towards the development of effective programmes that can reduce STIs and HIV infections.

6.2 Recommendations

Government needs to intensify STI awareness at schools in order to empower young boys and discourage early sex among boys and girls. Sexual health issues need to be included in the curriculum at primary schools in order to discourage the positive perceptions that favour men with many girlfriends, because in this study many participants (41%) reported having had more than twenty partners in their life time.

There is a need to train healthcare workers on how to communicate with men in a sensitive, non-judgmental way. Health-care workers need to encourage patients to ask questions about their sexual health, since forty-three percent of participants had never sought information about their sexual health, and also health-care workers require training to encourage them to answer all the questions asked by patients.

Government should make men's clinics freely available in order to deal with men's sexual problems such as erectile dysfunction, since participants (73%) reported that they had stopped using condoms once they experienced erectile dysfunction. There is a need for permanent clinics in public places like taxi ranks.

Additional health care personnel, including male nurses, should be prioritized by the government, as having more male healthcare workers, in addition to females, may assist in making clinics a more comfortable place for men.

The public health sector needs to find creative approaches to providing healthcare services that are user-friendly for men, such as offering men's health services in the clinics in the evening.

Partner notification is important for interrupting the transmission of STIs and preventing possible reinfection, and this aspect needs to be emphasized by healthcare workers.

Government should increase awareness about antibiotics resistance, since gonorrhea is becoming more resistant to antibiotics, while it has a high incidence rate among young people [6].

The STI programme planners need to intensify the importance of condom use awareness among men, including targeting men at their work places, as some of the participants recommended that there should be increased awareness programmes at their work places. It is necessary to intensify health education awareness programmes about STIs, especially among men who are single, less educated and below 35 years of age, since they are more likely to delay seeking treatment.

There is a need for health education and awareness about the importance of going to the clinic early. The urgent need is to provide information and train traditional healers on the relationship between HIV/AIDS and STIs, as well as integrating modern and traditional health systems. Traditional healers could be used to educate the community, and in particular the youth, on STI prevention. This might result in a long-term reduction in the incidence of HIV/AIDS.

6.3 Further research

Further research is needed to be conducted on the implementation and the effectiveness of educational and awareness programmes concerning the need for early treatment of STIs, and whether the message is or is not presented adequately.

Further research is needed to determine reasons why men engage in risky sexual behaviour despite their knowledge about STIs, so as to understand the social and behavioural links involved in acquisition of infections.

Further research is needed to investigate the implementation, monitoring and evaluation of policies derived from research findings.

Declaration

Mpumelelo Nyalela is currently a student at the UKZN School of Nursing and Public Health. He is currently employed at Prince Mshiyeni Memorial Hospital. Funding towards the completion of a postgraduate qualification was received from UKZN School of Nursing and Public Health. Neither clinic had any financial or other form of contribution towards the study design, data collection methods, analysis and interpretation of the results and writing of the manuscript.

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Conflict of interest

I do not have a commercial or other association which may have posed a conflict of interest.

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ADDENDA

7.1 Protocol

7.1.1 Questionnaires: originals and translations

Original questionnaire:

A. DEMOGRAPHICS (PLEASE TICK APPROPRIATE BOX)

These questions are about you.

1. Age: **(choose one answer)**

	18 -25
	26-35
	36-45
	46-49

2. Ethnicity: _____

3. Place of stay: **(choose one answer)**

	Urban / city / sub-urban
	Township
	Rural
	Informal settlement
	Peri-urban

Other, please specify:_____

4. Which is the nearest clinic to you?

	This one
	Other

Other, please specify:_____

5. Religion: **(choose one answer)**

	Muslim
	Shembe
	Christian
	African traditional
	Other

6. Educational level: **(Please tick on appropriate box, and choose one answer)**

	Completed	**Not completed**
Primary school		
Secondary school		
Tertiary level / college		
No education		

7. Marital status: **(choose one answer)**

	Single
	Married / Cohabiting
	Divorced / Separated
	Widowed

8. Employment status: **(choose one answer)**

	Full time work
	Part time work
	Not employed
	Retired
	Student
	Pension

9. What type of work do you do?:_____

10. Clinic visit, is this your..? **(Please choose from below)**

	First visit
	2nd visit
	3rd visit
	4th visit
	5th and above visit

B. FACTORS ASSOCIATED WITH HSB

These questions are about the factors that are associated with health seeking behaviour. These factors include cultural, economic, and psycho-social factors.

1. When you have an STI, where do you seek medical help from?:

☐ Traditional healers ☐ Modern health facilities

2. Does your culture influence your medical help seeking behaviour when experiencing an STI ?

☐ Yes ☐ No

If you say **Yes,** what influence?_____

3. Do you think that: **(Please tick on the appropriate box)**

	YES	**NO**	**DON'T KNOW**
A man does not need to immediately go to the clinic, rather wait until pains are severe?			
A man does not need to go to the clinic for an STI?			
A man needs to see a traditional healer for an STI?			

4. For an STI,….**(Please choose one option for each choice)**

	Never	**1 time a year**	**2-6 times a year**	**7 and more times a year**
How often do you see a traditional healer?				
How often do you go to a medical doctor?				
How often do you go to the clinic?				

5. Does going to the clinic makes you feel less of a man? Yes ☐ No ☐

6. Does lack of money prevent you from going to the clinic? Yes ☐ No ☐

7. Do you find it expensive going to the clinic? Yes ☐ No ☐

8. How do you find getting to clinic, is it?

☐ Easy ☐ Difficulty

9. Does the distance hinder you from going to the clinic? Yes ☐ No ☐

10. Does change in weather conditions prevent you from going to the clinic?

☐ Yes ☐ No

11. Do you find difficulty in transport coming to the clinic? Yes ☐ No ☐

12. What mode of transport do you use when you are coming to the clinic?_____

C. KNOWLEDGE ABOUT STIs

This section contains questions aiming at investigating the knowledge regarding sexually transmitted infections.

1. First time noticing a sign, were you aware that you are having an STI?

☐Yes ☐No

2. Do you know different types of STIs? ☐Yes ☐No

If **Yes**, which ones do you know?_____ _____

3. Please tick any condition or disease you have had previously:

☐Syphilis (bad blood) ☐Genital / Sex Warts ☐ Gonorrhea

☐ Herpes HIV ☐ ☐ Chlamydia

☐Trichomonas

4. Did you think that you were at risk of getting an infection?

☐Yes ☐No ☐Don't know

If **No**, why, it is because?: **(choose one or more answers)**

☐You are married

☐You have one sexual partner

☐Your partner is faithful

☐You use condoms consistently

☐Your partner is circumcised

☐Others_____

5. Did you tell your partner about the STI infection? Yes ☐ No ☐

6. Does your partner have the same infection? Yes ☐ No ☐ Don't know ☐

7. Can you get an STI more than once? Yes ☐ No ☐

8. Do you think you can get an STI?: **(choose one or more answers)**

	By witchcraft
	If you have unprotected sex with infected person
	If you have Multiple partners
	If your partner uses contraceptives
	If you sleep with a woman who holds her breath
	When a woman pushes you out during climax

9. Can you get an STI even if your partner has no symptoms?

☐ Yes ☐ No ☐ Don't know

10. Did you use a condom last time you had sex?: Yes ☐ No ☐

11. Can a condom protect you from getting an STI?

☐ Yes ☐ No ☐ Don't know

12. To protect yourself from getting STI/HIV, how often should you use condoms ?

	At every sexual encounter
	At most sexual encounter
	At high risk encounters
	Don't know

13. What happens to a person with an STI who does not go for treatment? _____

14. Can you always tell if someone is infected with HIV?

☐ Yes ☐ No ☐ Do not know

15. Can a healthy looking man transmit HIV?

☐ Yes ☐ No ☐ Do not know

16. Are you circumcised? ☐ Yes ☐ No

17. Do you know the benefits of circumcision? Yes ☐ No ☐

If **Yes**, what are they?_____

D. BELIEFS AND ATTITUDES TOWARDS SEEKING HEALTH REMEDIES

This section contains questions that are aiming to find men's beliefs and attitudes towards seeking health remedies.

1.Where do you go first when you experience signs of STI?_____

2. When do you decide to seek medical help for an STI, is it when you have?: **(choose one answer)**

	Mild illness
	Moderate illness
	Severe illness

3. When you noticed that you had an STI, who did you seek advice from?: **(choose one answer)**

	Spouse
	Friend
	Colleague
	Health worker
	Traditional healer
	Other

Other:_____

4. When you have an STI, do you prefer going to the?: **(choose one answer)**

	Public Clinic / Hospital
	Traditional healer
	Private medical doctor
	Self-medication

5. Did you visit a traditional healer? Yes ☐ No ☐

6. Why would you visit a traditional healer when you have an STI?:

☐ When Western science does not improve the condition?

☐ When you suspect that STI is due to witchcraft?

☐ Not applicable

7. Have you been to this clinic before? Yes ☐ No ☐

8. Have you been treated for an STI previously? Yes ☐ No ☐

9. Did you first try to self-treat before coming to the clinic?: Yes ☐ No ☐

10. How long did you wait or postpone before seeking treatment at the clinic after noticing signs of infection?: **(choose one answer)**

	1 – 3 days
	4 – 6 days
	7 – 10 days
	11 days and more

11. For which **illnesses**, including STIs, would you prefer using the following facilities : **(Please name one or more illnesses for each facility)**

Clinic?	
Traditional healer?	
Self-treatment?	

12. Do you know your HIV status? Yes ☐ No ☐

If **Yes**, what is your HIV status:

☐ Positive

☐ Negative

E. HEALTH SYSTEM FACTORS

This section contains questions that are investigating issues related public health service.

1. Do healthcare workers' attitudes prevent you from going the clinic?

☐ Yes ☐ o ☐ Unsure

2. Do you experience any problems when visiting the clinic?

☐ Yes ☐ No ☐ Unsure

If **Yes**, like what?_____

3. What would prevent you from going to the clinic when you have an STI? _____

4. Do you feel comfortable coming to the clinic? ☐ Yes ☐ No ☐ Unsure

If **NO**, why?_____

5. Do clinic staff treat you with dignity? ☐ Yes ☐ No ☐ Unsure

6. Do healthcare workers talk in a proper manner with you?

☐ Yes ☐ No ☐ Unsure

7. Do you feel comfortable to ask questions about your health from the nurses?

☐ Yes ☐ No ☐ Unsure

8. How often are you satisfied with the way they treat you in the clinic?: **(choose one answer)**

	Always
	Sometimes
	Never

9. Do you always get the medication you need? ☐ Yes ☐ No

10. What are your reasons for not going to clinic when you are having an STI, is it?: **(choose one or more answers)**

	Fear stigma and attitudes of healthcare workers
	Don't believe a clinic can help with the type of illness
	Prefer going to the traditional healer
	Will not get time off work

Other ?_____

11. Do you think you spend too much time waiting in the clinic?

☐ Yes ☐ No ☐ Don't know

12. In health facilities (traditional or modern) you have utilized, which one has a short waiting time?

☐ Traditional

☐ Modern

☐ Neither

13. Do you think the clinic has enough staff to attend to your problems?

☐ Yes ☐ No ☐ Don't Know

14. Is government doing enough to cater for men's problems?

☐ Yes ☐ No ☐ Don't know

If **NO**, why do you think so?_____ __

15. What would you like see government doing for men's health issues?_____

16. Would you like more information about prevention of STIs?

☐ Yes ☐ No ☐ Unsure

17. How many times have you sought information from healthcare workers? _____

F. SEXUAL BEHAVIOUR

The questions in this section are aiming at investigating the sexual behaviour of the participants.

1. Do you use a condom? ☐ Yes No ☐

2. How often do you **USE** a condom?: **(choose one or more answers) Tick Yes or No**

All the time	Yes	No
When I don't trust a partner	Yes	No
When condom is available	Yes	No
When I have signs of an STI	Yes	No
When I am sober	Yes	No

3. When do you **NOT USE** a condom?: **(choose one or more answers)Tick Yes or No**

All the time	Yes	No
When I trust the partner	Yes	No
When have a long term relationship	Yes	No
When I am drunk	Yes	No
When I have erectile dysfunction	Yes	No
When it is not available	Yes	No
When I sleep with a virgin	Yes	No

4. How many partners have you had in the past year?_____

5. How many sexual partners have you had in your lifetime? _____

☐ 0 ☐ 1-5 ☐ 6-10 ☐ 11-19 ☐ 20+

6. Have you had sexually intercourse with a sex worker? Yes ☐ No ☐

Translated questionnaire:

ITHULUZI LOKUQOQA ULWAZI

Injongo yaleli thulusi ukuqoqa imininngwane mayelana nendlela amadoda afuna ngayo usizo lwezempilo khona ukuze sizoqondisisa kahle izimo zempilo yamadoda.

A. IMININGWANE YAKHO (Ngicela ufake uphawu ebhokisini elifanele)

Imibuzi mayelana nawe.

1. Iminyaka yakho

	18 -25
	26-35
	36-45
	46-49

2. Ubuhlanga: _____

3. Indawo ohlala kuyo : **(khetha eyodwa)**

	Edolobheni
	Elokishini
	Emakhaya
	Emjondolo
	Esilungwini

Enye indawo:_____

4.Yisiphi Isikhungo sezempilo esiseduze nawe?

	Yilesi ukuso manje
	Noma esinye

Esinye? Chaza:_____

5.Inkolo yakho : **(khetha okukodwa)**

	ISulumane
	UShembe
	UMkristo / Ikholwa
	INkolo yabomdabu
	Enye inkolo

Enye? Chaza_____

6 .Isibanga semfundo: **(Faka uphawu olulodwa ebhkisini elifane)**

	Ngiqedile	**angiqedile**
Amabanga aphansi		
Amabanga aphakathi nendawo		
Imfundo ephakeme /Ikolishi		
Angifundanga		

7. Izinga lomshado : **(Khetha okukodwa)**

	Angishadile
	Ngishadile/nginomasihlalisane
	Ngehlukanisile/Sihlala ngokuhlukana
	Ngingumhlolo

8. Isimo sokusebenza:

	Ngiyasebenza ngokuphelele
	Ngibamba itoho
	Angisebenzi
	Ngisulile emsebenzini
	Ngingumfundi
	Ngisempeshenini

9. Uhlobo lomsebenzi owenzayo: _____

10. Okwesingakhi uza lana emtholampilo? **(Khetha kuloku kungezansi)**

	Okokuqala
	Okwesibini
	Okwesithathu
	Okwesine
	Okwesihlanu nangaphezulu

B. IZIMO MAYELANA NENDLELA AMADODA AFUNA NGAYO USIZO LWEZEMPILO

Le mibuzo imayelana nendlela amadoda afuna ngayo usizo lwezemilo, kuquka amasiko**,** ezomnotho, kunye nezentlalakhle

1. Uma unesifo socansi ulufuna kuphi usizo?:

☐ Ezinyangeni ☐ Kodokotela

2. ingabe isiko lakho lineqhaza ekufuneni kwakho usizo lokwelaphwa isifo socansi oluthathelanayo?

☐ Yebo ☐ Cha

3.Ingabe ucabanga ni mayelana namadoda? Ingabe….. **(Khetha kwibhokisi elifanele)**

	YEBO	**CHA**	**ANGAZI**
Umuntu wesilisa akasheshe aye kumtholampilo, ulinda aze abe nezinhlungu			
Umuntu wesilisa akadingi ukuya emtholampilo uma inesifo socansi			
Umuntu wesilisa udinga ukubona inyanga uma inesifo socansi			

4. Mayelana nesifo socansi, …….**(Faka uphawu olufanele kwibhokisi ngayinye)**

	Angikaze	**Ngiya kanye ngonyaka**	**Ngiya izihlandlo ezimbili noma eziyisithupha ngonyaka**	**Ngiya izihlandlo ezingaphezu kweyisikhombisa**
Uyibona kangaphi iNyanga?				
Umbona kangaphi uDokotela?				
Uyakangaphi emtholampilo?				

5. ingabe ukuya emtholampilo kukwenza uzive ungeyona indoda ephelele?

☐Yebo ☐Cha

6. Ukungabi namali kuyakuvimbela yini ukuthi uyofuna usizo kwezempilo?

☐Yebo ☐Cha

7. Ubona kubiza kakhulu yini ukuya emtholampilo? ☐Yebo ☐ Cha

8. Ukuthola kunjani ukufinyelele osizweni lwezempilo?

☐ Kulula ☐ Kunzima

9. Ukuba kude nekiliniki kuyakuvimbela yini uukthi uyofuna usizo lwezempilo ?

☐ Yebo ☐ Cha

10. Isimo sezulu kuyenzeka yini ukuba sikuvimbele ukuba ufinyelele emtholampilo?

☐ Yebo ☐ Cha

11. Kuyenzeka yini ukuthi ube nenkinga yokuthola izinto zokuhamba ukuze ufinyelele emtholampiloi?

☐ Yebo ☐ Cha

12. Ugibelani uma uza emtholampilo?_____

C. ULWAZI MAQONDANA NEZIFO ZOCANSI

Lesi sigamu sihlose ukuqoqa ulwazi onalo malunga nezifo zocansi.

1. Ngenkathi uqala ukubona izimpawu wawazi ukuthi yisifo socansi lesi?

☐ Yebo ☐ Cha

2. Uyazazi izinhlobo zezifo zocansi? ☐ Yebo ☐ Cha

Uma uzazi ,yiziphi ozaziyo?_____

3.Khetha isifo noma izifo oseke wabanazo kulezi zingezansi:

☐ Ugcunsula ☐ Izinsumpa ☐ Ibuba / idrop

☐ Isipatsholo ☐ Ingculaza ☐ Ichlamydia

☐ Trichomonas

4. Ubuke wacabanga ukuthi usengcupheni yokuthola isifo socansi?

☐ Yebo ☐ Cha

Uma kungenjalo kwenziwa yini ungacabangi kanjalo?:

☐ Yingoba ngishadile

☐ Nginomlingani oyedwa

☐ Umlingani wami uthembekile

☐ Ngisebenzisa ijazi likamkhwenyana ngaso sonke isikhathi

☐ Umlingani wami usokiwe

☐ Okunye _____

5. Wamtshena umlingani wakho ukuthi unesifo socansi? ☐ Yebo ☐ Cha

6. Unaso yini umlingani wakho lesisifo socansi? ☐ Yebo ☐ Cha ☐ Angazi

7. Ungasithola yini isifo socansi kaningi? ☐ Yebo ☐ Cha ☐ Angazi

8. Ucabanga ukuthi sibangwa yini izifo socansi? Ketha kulezi zizathu zilandelayo :

	Ukuloywa / ubuthakathi
	Ukuya ocansini olungaphephile nomuntu onesifo socansi
	Ukwabelana nabantu abaningi ngocansi
	Izinto zokuhlela umndeni
	Ukulala nomuntu wesifazane obamba umoya
	Owesifazane ochiliza owesilisa uma esezochama

9. Ingabe ungasithola isifiso socansi noma umlingani engenazo izimpawu?

☐ Yebo ☐ Cha ☐ Angazi

10. Wayisebenzisa ikhondomu muhla ugcina ukuya ocansini?

☐ Yebo ☐ Cha

11. Uyakholwa yini ukuthi ijazi lomkhwenyana lingavikela kwisifo socansi?

☐ Yebo ☐ Cha

12. Ukuvikela isifo socansi / ingculaza, ijazi lomkhwenyana kufanele lisetshenziswe:

	Sonke isikhathi uma uya ocansini
	Izikhathi eziningi uma uya ocansini
	Uma usengcupheni yokuthola isifo socansi
	Angazi

13. Kwenzekani kumuntu onesifo socansi ongayi ukuyofuna ukwelashwa?
_____

14.Ungakwazi ukubona umuntu onengculaza?

☐ Yebo ☐ Cha ☐ Angazi

15. Umuntu obukeka ephila angabathelela yini abanye ngengculaza?

☐ Yebo ☐ Cha ☐ Angazi

16. Ingabe usokiwe? ☐ Yebo ☐ Cha

17. Uyayazi imivuzo wokusokwa? ☐ Yebo ☐ Cha

Uma uyazi,iyini?_____

D. IZINKOLELO MAYELANA NOKUFUNA USIZO LWEZEMPILO

Lesi sigamu sicawninga inkolelo zamadoda mayelana nokufuna uszi lwezempilo.

1.Uyaye ulufune kuphi usizo kuqala uma unezimpawu zesifo esithathelana ngocansi?_____

2. Ingabe usithatha nini isinqumo sokufuna usizo lwezempilo?

	Uma ngigula kancane
	Uma ngigula impela
	Uma ngigula kakhulu

3. Ngalenkathi uqala ukubona ukuthi unesifo esithathelana ngokocansi, ngubani owafuna kuyena iseluleko?

	Umlingane wakho
	Umngani wakho
	Umuntu osebenza naye
	Umsebenzi wezempilo
	Umlaphi wendabuko
	Okunye

Okunye?:_____

4. Uma uqala ukuphathwa yisifo socansi uyaye ukhethe ukuyolufuna kuphi usizo?

	Emtholampilo / Esibhedlela
	Ezinyangeni
	Kodokotela abazimele
	Ngizelapha mina

5. Ingabe uke waya yini Enyangeni? ☐ Yebo ☐ Cha

6. Yini eyenza ukuba ufune usizo ezinyangeni uma unesifo socansi?

☐ Uma odokotela besilungu bengayixazululi inkinga yakho.

☐ Uma ngisola ukuthi uthakathiwe.

☐ Lutho

7. Usuke weza yini kulomtholampilo? ☐ Yebo ☐ Cha

8. Usuke wanyangelwa isifo socani phambilini ? ☐ Yebo ☐ Cha

9. Ingabe uqale uzame ukuzelapha ngokwakho ngaphambi kokuya emtholampilo

☐ Yebo ☐ Cha

10. Kukuthatha isikhathi esingakanani ukuthi ufune usizo lwezempilo emuva kokuba usubonile ukuthi unezimpawu zesifo socansi;

	1 – 3 izinsuku
	4 – 5 izinsuku
	6 – 10 izinsuku
	11 –zinsuku nangaphezulu

11. Kulokhu okulandelayo, ungayela ziphi izifo? **(kuquka nezifo zocansi)**

Umtholampilo?	
Inyanga	
Ukuzelapha wena?	

12. Uyasazi isimo sakho maqondana negciwane lengculaza? Yebo ☐ Cha ☐

Uma usazi ismo sakho, sithini?

☐ Nginalo

☐ Anginalo

E. IZIMO EZIPHATHELENE NEZIKHUNGO ZEMPILO

Lesi sigamu sinemibuzo ecwaninga impatho yamadoda kwizikhungo zempilo

1. Ingabe indlela eziphathana ngayo izisebenzi zezempilo, iyakuvimbela ukuthi uye emtholampilo?

☐Yebo ☐Cha

2. ingabe zikhona yini izinkinga ohlangabezana nazo uma uvakashela emtholampilo?

☐Yebo ☐Cha

Uma zikhona ,yiziphi?_____

3. Yini engakuvimbela ukuthi uye emtholampilo uma unesifosocansi?

_____

4.Uyaye uzizwe ukhululekile uma uze emtholampilo? ☐Yebo ☐No

Uma kungenjalo, kungani?_____

5. Zikuphatha ngenhlonipho yini izisebenzi zasemtholampilo?

☐Yebo ☐Cha

6. Izisebenzi zasemtholampilo zixhumana ngendlela efanele yini nawe? ☐Yebo ☐Cha

7. Ingabe uzizwa ukhululekile ukubuza mayelana nesimo sempilo yakho?

☐Yebo ☐Cha ☐Angiqinisekile

8. Kukangaki waneliseka yindlela ophathwa ngayo emtholampilo?:

	Sonke isikhathi
	Ngezinye izikhathi
	Anganeliseki nakancane

9. Uyayithola sonke isikhathi imithi esuke idingeka? ☐Yebo ☐Cha

10. Yiziphi izizathu ezenza ukuba ungayi emtholampilo uma unesifo socansi, kulezi zilandelayo?:

	Ukwesaba indlela abezempilo abazongibuka ngayo
	Angikholwa ukuthi umtholampilo ungangisiza kuloluhlobo lwesifo
	Ngikhetha ukuya eziNyangeni
	Angisitholi isikhathi sokuphutha (sokuphumula)emsebenzini
	Okunye

Okunye?: _____

11. Uma ucabanga, side yini isikhathi oslindayo emtholampilo?

☐ Yebo ☐ Cha

12. Ezikhungweni zezempilo zesintu noma ezesilungu yisiphi ochitha isikhathi esfishane ulindile?

☐ Ezesintu

☐ Ezesilungu

☐ Asikho

13. Ucabanga ukuthi izisebenzi zasemtholampilo zanele ukhlangabezana nezidingo zenu?

☐ Yebo ☐ Cha ☐ Angazi

14. Ingabe Uhulumeni wenza imizamo eyenele yini ukuhlangabezana nezinkinga zamadoda ?

☐ Yebo ☐ Cha ☐ Angazi

Uma uthi **Cha**, kungani ucabanga njalo?_____

15. Ungathanda ukubona uhulumeni enzani maqonadana nezinkinga zempilo zamadoda? _____

16. Ungathanda yini ukuthola ulwazi malunga nokuvinjelwa kwezifo zocansi?

☐ Yebo ☐ Cha ☐ Angazi

17. Usulufune kangaphi ulwazi kubahlengikazi?_____

F. UKUZIPHATHA KWEZOCANSI

Lesi sigamu sicwaninga ngendlela yokuziphatha kwezocansi

1. Uyalisebenzisa ijazi lomkhenyana?

☐ Yebo / ☐ Cha

2. **Ulisebenzisa** kangaki ijazi lomkhenyana ?: **(Khetha Yebo noma Cha. Khetha impendulo eyodwa noma ngaphezu kweyodwa)**

Sonke isikhathi	Yebo	Cha
Uma ngingamthembi umlingani	Yebo	Cha
Uma ijazi lomkhwenyana likhona	Yebo	Cha
Uma nginezimpawu zesifo socansi	Yebo	Cha
Uma ngingaphuzile	Yebo	Cha

3. Kunini lapho **ungalisebenzis**i khona ijazi lomkhwenyana? **Cha(Khetha Yebo noma Cha. Khetha impendulo eyodwa noma ngaphezu kweyodwa)**

Sonke isikhathi	Yebo	Cha
Uma ngimthemba umlingani	Yebo	Cha
Uma ubudlelwano sekunesikhathi eside	Yebo	Cha
Uma ngiphuzile	Yebo	Cha
Uma ngingavukelwa	Yebo	Cha
Uma lingekho ijazi lomkhwenyana	Yebo	Cha
Uma ngilala nentombi nto	Yebo	Cha

4. Ube nabalingani abangaki kulonyaka odlule?_____

5. Usuye nabantu abangaki ocansini empilweni yakho? _____

☐ 0 ☐ 1-5 ☐ 6-10 ☐ 11-20 ☐ 20+

6. Usuke wabelana ngesondo nomuntu odayisa ngomzimba? ☐ Yes ☐ Cha

7.1.2 Consent forms: originals and translations

Original consent:

CONSENT

I _____ have been informed about the study investigating men's health issues by Mpumelelo Nyalela (principal researcher) and nursing staff (research assistants).

I understand the purpose of the study, and the manner that the study will be carried out. I have been given an opportunity to answer questions about the study and have had answers to my satisfaction. I declare that my participation in this study is entirely voluntary and that I may withdraw at any time without affecting any treatment or care that I would usually be entitled to.

If I have any further questions/concerns or queries related to the study I understand that I may contact the researcher at:

Telephone number: 0823469490

Email address: nyalelam@yahoo.co.uk

If I have any questions or concerns about my rights as a study participant, or if I am concerned about an aspect of the study or the researchers then I may contact:

BIOMEDICAL RESEARCH ETHICS ADMINISTRATION

Research Office, Westville Campus
Govan Mbeki Building
Private Bag X 54001
Durban
4000
KwaZulu-Natal, SOUTH AFRICA
Tel: 27 31 2604769 - Fax: 27 31 2604609
Email: BREC@ukzn.ac.za

Signature of Participant_____ Date_____

*Translated consent***:**

ISIVUMELWANO

Mina _____ngichazeliwe ngocwaningo olumayelana nezimpilo zabesilisa oluzokwenziwa nguMpumeloelo Nyalela (umphenyi omkhulu) kanye nabasizi bakhe.

Ngiyayiqonda injongo yalolucwaningo nendlela oluzoqhutshwa ngayo.Nganelisekile yizimpendulo engizitholile emibuzweni yami mayelana nalolucwaningo. Ngiyaqinisekisa ukuthi ukuzibandakanya kwami kulolucwaningo kusuke kimi ,angiphoqwanga muntu, nokuthi ngingahoxa noma yinini kulolucwaningo ngaphandle kokuthi ngilahlekelwe yilungelo lami lokunakekelwa nokwelashwa.

Ngiyazi ukuthi uma nginemibuzo nokungaba yikuphi okuphathelene nalolucwaningo ngiyaqonda ukuthi ngiyothintana nomphenyi:

Inombolo yocingo: 0823469490

Idilesi ye-email: nyalelam@yahoo.co.uk

Uma nginemibuzo nokungabaza maqondana namalungelo ami njengomuntu obambe iqhaza kulolucwaningo noma uma kukhona engingakuqondi mayelana nocwaningo noma abaphenyi ngiyoxhumana ne:

BIOMEDICAL RESEARCH ETHICS ADMINISTRATION
Research Office, Westville Campus
Govan Mbeki Building
Private Bag X 54001
Durban
4000
KwaZulu-Natal, SOUTH AFRICA
Tel: 27 31 2604769 - Fax: 27 31 2604609
Email: BREC@ukzn.ac.za

Osayinile:_____ **Usuku:_____**

7.1.3 Participation information sheet: originals and translations

Original information sheet:

Information Sheet and Consent to Participate in Research

Date:

Greetings

My name is Mpumelelo Nyalela, currently studying for a Master in Public Health degree at University of KwaZulu in the department of Public Health.

My contact number: 0823469490

Email addresses: nyalelam@yahooco.uk

You are being invited to participate in a study that involves research about men's health issues. The aim and purpose of this research is to find out the problems affecting men's health that are preventing or delaying them to seek medical help. The study is expected to enroll about 400 participants. It will only require you to answer a questionnaire provided to you by myself and research assistants. I will be available for clarifications. It will only take about 10 minutes to answer. The participants will be provided with snacks after completing the form.

The study does not involve any risks and discomfort. The questionnaire will be filled in a separate private room. We hope that the study will provide valuable information pertaining to men's health issues that can be used by this institution, Department of health and relevant stakeholders to improve men's health. We also hope that the information will used by health policy makers and program directors in order to bring better health services to men.

This study has been ethically reviewed and approved by the UKZN Biomedical research Ethics Committee (approval number_____).

In the event of any problems or concerns/questions you may contact the researcher at the above mentioned contact details. You can also contact the UKZN Biomedical Research Ethics Committee at:

BIOMEDICAL RESEARCH ETHICS ADMINISTRATION

Research Office, Westville Campus
Govan Mbeki Building
Private Bag X 54001
Durban
4000
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Tel: 27 31 2604769 - Fax: 27 31 2604609
Email: BREC@ukzn.ac.za

Participation in this research is voluntary. You may stop participating in the study at any moment you want. If you decide to stop participating, you will not be penalized, for example by not given medication or get proper treatment and care. You will not be paid by participating in the study, but you will get snacks after filling in the form.

Your information will be protected by keeping it in a locked cupboard at home. Later the information will entered in my computer, protected by password which is only known by myself. I will not write your names and addresses on the answer sheet, so I will not know who wrote the answers.

Please feel free to ask any questions regarding the study.

Translated information sheet:

IPHEPHA LOLWAZI KANYE NESIVUMELWANE SOKUBAMBA IQHAZA OCWANINGWENI

Usuku:

Sawubona!

Igama lami ngingu Mpumelelo Nyalela owenza izifundo ephakeme kwezempilo zomphakathi enyuvesi yaKwaZulu-Natal

Inombolo yocingo: 0823469490

Idilesi ye-email: nyalelam@yahooco.uk

Uyamenywa ukuba ubambe iqhaza kucwaningo oluphathelene nezempilo yabesilisa. Inhloso yalolucwaningo wukuthola izinkinga ezivimbela abantu besilisa noma ezenza abantu besilisa babe manqikanqika ukuyofuna usizo lwezempilo uma begula. Ucwaningo kulindeleke ukuthi lubandakanye abantu cishe abalikhulu elinamashumi amathathu (130).Ucwaningo luzodinga ukuthi uphendule imibuzo ozoyinikwa yimina kanye nabasizi bami. Ngizobakhona ukuthi ngichaze imibuzo. Kuyothatha imizuzu eyishumi kuphela ukuphendula imibuzo. Ababambe iqhaza bayohlinzekwa ngokulula okuya ethunjini uma sebeqede ukuphendula imibuzo esephepheni.

Ucwaningo alunabo ubungozi nokuhlukumezeka. Amaphepha emibuzo ayogcwaliswa endlini ekhethekile. Sethemba ukuthi ucwaningo luyosinika ulwazi olusemqoka mayelana nezempilo ya bantu besilisa engasetshenziswa yilesikhungo, umnyango wezempilo nabanye ababambe iqhaza kwezempilo ukwenzangcono impilo yabantu besilisa. Sithemba nokuthi lolulwazi oluzotholakala kulolucwaningo luyosetshenziswa nangabaphathi bezempilo ukwenzangcono impilo yabantu besilisa.

Lolucwaningo lubhekiwe ngabamalungelo abantu lavunywa abase UKZN Biomedical research Ethics Committee (Inombolo abavume ngayo…)

Kulenombolo nekheli elingenhla.Uma kubakhona izinkinga noma ukungabaza/nemibuzo ungathintana nomphenyi kulemininingwane engenhla. Ungathintana futhi ne UKZN Biomedical Research Ethics Committee ku:

BIOMEDICAL RESEARCH ETHICS ADMINISTRATION
Research Office, Westville Campus
Govan Mbeki Building
Private Bag X 54001
Durban
4000
KwaZulu-Natal, SOUTH AFRICA
Tel: 27 31 2604769 - Fax: 27 31 2604609
Email: BREC@ukzn.ac.za

Ukubamba iqhaza kulolucwaningo akuphoqiwe. Ungahoxa ophenyweni noma yinini mawuthanda. Uma ukhetha uukhoxa ocwaningweni ngeke ujeziswe noma ubandlululwe ngokunakekelwa noma ngokwelashwa. Ngeke ukhokhelwe ngokuzibandakanya kwakho ocwaningweni,kodwa uyothola okulula okuya ethunjini uma usugcwalise iphepha lemibuzo.

Ulwazi olunikile luyovikelwa ngokuthi lugcinwe ekhabetheni elikhiywayo ekhaya.Kamuva ulwazi luyobe selufakwa ekhompuyutheni eyovulwa umphenyi kuphela.Ngeke ngibhale igama nekheli yakho ezimpendulweni zakho,ngakhoke ngeke ngazi ukuthi ubani obhale leozimpendulo.

Ngicela ukhululeke ubuze noma yimuphi umbuzo maqondana nocwaningo.

7.2 Approvals

7.2.1 Research project approval by Postgraduate Education Committee

UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

11 September 2014

Ms M Nyalela
Student No 983180364
Discipline of Public Health Medicine
School of Nursing & Public Health

Dear Ms Nyalela

Masters in Public Health Protocol: ***"Health seeking behaviour in men presenting with sexually transmitted infections at Warwick and KwaMashu Poly STI clinics in 2014" M Nyalela Student No 983180364***

Your protocol has been given final approval of the abovementioned study, on the 02nd September 2014. This will be noted at the next Postgraduate and Research & Higher Degrees Committee Meeting.

Please note:

- The Postgraduate Committee must review any changes made to this study
- Please note that the study may not begin without the approval of the Biomedical Research Ethics Committee

May I take this opportunity to wish you every success with the study.

Yours sincerely

Mrs Devi Arumugam
School of Nursing & Public Health

CC. Discipline of Public Health Medicine

Postgraduate Administration
School of Nursing and Public Health
University of KwaZulu-Natal
Postal Address: University of KZN, Durban, 4041, South Africa
Telephone: +27 (0) 31 260 2499
Facsimile: +27 (0) 31 260 1543

7.2.2 Research project approval from Biomedical Research Ethics Committee

UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

12 February 2015

Mr Mpumelelo Nyalela
Private Bag X07
Mobeni
4060
nyalelam@yahoo.co.uk

Dear Mr Nyalela

PROTOCOL: Factors associated with health seeking behaviour in men presenting with STIs: Degree Purposes (Masters) - School of Nursing and Public Health (Public Health Medicine). BREC REF: BE442/14.

EXPEDITED APPLICATION

A sub-committee of the Biomedical Research Ethics Committee has considered and noted your application received on 01 October 2014.

The study was provisionally approved pending appropriate responses to queries raised. Your responses received on 29 January 2015 to queries raised on 12 January 2015 have been noted by a sub-committee of the Biomedical Research Ethics Committee. The conditions have now been met and the study is given full ethics approval **to be undertaken at the Wawick & KwaMashu Poly STI clinics.**

This approval is valid for one year from **12 February 2015.** To ensure uninterrupted approval of this study beyond the approval expiry date, an application for recertification must be submitted to BREC on the appropriate BREC form 2-3 months before the expiry date.

Any amendments to this study, unless urgently required to ensure safety of participants, must be approved by BREC prior to implementation.

Your acceptance of this approval denotes your compliance with South African National Research Ethics Guidelines (2004), South African National Good Clinical Practice Guidelines (2006) (if applicable) and with UKZN BREC ethics requirements as contained in the UKZN BREC Terms of Reference and Standard Operating Procedures, all available at http://research.ukzn.ac.za/Research-Ethics/Biomedical-Research-Ethics.aspx.

BREC is registered with the South African National Health Research Ethics Council (REC-290408-009). BREC has US Office for Human Research Protections (OHRP) Federal-wide Assurance (FWA 678).

The sub-committee's decision will be **RATIFIED** by a full Committee at its meeting taking place on **10 March 2015.**

We wish you well with this study. We would appreciate receiving copies of all publications arising out of this study.

Yours sincerely

Professor V Rambiritch
Deputy Chair: Biomedical Research Ethics Committee

Biomedical Research Ethics Committee
Professor D R Wassenaar (Chair)
Westville Campus, Govan Mbeki Building
Postal Address: Private Bag X54001, Durban 4000
Telephone: +27 (0) 31 260 2486 **Facsimile:** +27 (0) 31 260 4609 **Email:** brec@ukzn.ac.za
Website: http://research.ukzn.ac.za/Research-Ethics/Biomedical-Research-Ethics.aspx

7.2.3 Research project approval from Biomedical Research Ethics Committee (change of sites)

(Approval of Amendments to change site from Warwick STI clinic to Prince Mshiyeni Gateway clinic)

UNIVERSITY OF
KWAZULU-NATAL
INYUVESI
YAKWAZULU-NATALI

RESEARCH OFFICE
BIOMEDICAL RESEARCH ETHICS ADMINISTRATION
Westville Campus
Govan Mbeki Building
Private Bag X 54001
Durban
4000
KwaZulu-Natal, SOUTH AFRICA
Tel: 27 31 2604769 - Fax: 27 31 260-4609
Email: BREC@ukzn.ac.za
Website: http://research.ukzn.ac.za/Research-Ethics/Biomedical-Research-Ethics.aspx

22 April 2015

Mr Mpumelelo Nyalela
Private Bag X07
Mobeni
4060
nyalelam@yahoo.co.uk

Dear Mr Nyalela

PROTOCOL: Factors associated with health seeking behaviour in men presenting with STIs: Degree Purposes (Masters) - School of Nursing and Public Health (Public Health Medicine). BREC REF: BE442/14.

AMENDMENT RATIFICATION

Further to our letter dated 18 March 2015 we wish to advise you that the Biomedical Research Ethics Committee at a meeting held on 14 April 2015 ratified the approval of Amendments (change of site from Warwick STI clinic to **Prince Mshiyeni Gateway clinic**) dated 02 March 2015.

Yours sincerely

Ms A Marimuthu
Senior Administrator: Biomedical Research Ethics

7.3 Gate keepers' permissions

7.3.1 Letter of support to conduct study at KwaMashu Community Health Centre

health

Department:
Health
PROVINCE OF KWAZULU-NATAL

Postal Address: Private Bag X54318 Durban 4000
ss: 83 Jan Smuts Highway, Mayville, Durban 4001
Tel.031 2405308: Fax. 031 2405500
Email. penny.dladla@kznhealth.gov.za
www.kznhealth.gov.za

Enquiries: Ms Ntombifuthi Mthethwa
Tel: 031 240 5342
Date: 20 January 2015

Attention: Mr. Mpumelelo Nyalela
E-mail : nyalelam@yahoo.co.uk

REQUEST TO CONDUCT RESEARCH:

Health Seeking Behaviour in men presenting with Sexually Transmitted Infections at Warwick and KwaMashu Poly STI clinics in 2014

Support is hereby granted to conduct research on the above topic.

Please note the following:

1. Please ensure that you adhere to all the policies, procedures, protocols and guidelines of the Department of Health with regard to this research.
2. This research will only commence once this office has received confirmation from the Provincial Health Research Committee in the KZN Department of Health.
3. Please ensure that this office is informed before you commence your research.
4. The District Office will not provide any resources for this research.
5. You will be expected to provide feedback on your findings to the District Office.

Ms. N.B. Mthethwa

For The District Manager
EThekwini Health District
Telephone: 031 2405342
Fax: 031 2405501
Email: ntombifuthi.mthethwa@kznhealth.gov.za

7.3.2 Letter of approval to conduct study at KwaMashu Community Health Centre

health

Department:
Health
PROVINCE OF KWAZULU-NATAL

Health Research & Knowledge Management sub-component
10 – 103 Natalia Building, 330 Langalibalele Street
Private Bag x9051
Pietermaritzburg
3200
Tel.: 033 – 3953189
Fax.: 033 – 394 3782
Email.: hrkm@kznhealth.gov.za
www.kznhealth.gov.za

Reference : HRKM012/15
NHRD Ref: KZ_2015RP34_623
Enquiries : Ms G Khumalo
Telephone : 033 – 395 3189

Dear Mr M Nyalela

Subject: Approval of a Research Proposal

1. The research proposal titled **'Health Seeking Behaviour in men presenting with Sexually Transmitted Infections at Warwick and KwaMashu Poly STI clinics in 2014'** was reviewed by the KwaZulu-Natal Department of Health (KZN-DoH).

The proposal is hereby **approved** for research to be undertaken at Warwick & KwaMashu Poly STI clinics.

2. You are requested to take note of the following:
   a. Make the necessary arrangement with the identified facility before commencing with your research project.
   b. Provide an interim progress report and final report (electronic and hard copies) when your research is complete.

3. Your final report must be posted to **HEALTH RESEARCH AND KNOWLEDGE MANAGEMENT, 10-102, PRIVATE BAG X9051, PIETERMARITZBURG, 3200** and e-mail an electronic copy to hrkm@kznhealth.gov.za

For any additional information please contact Ms G Khumalo on 033-395 3189.

Yours Sincerely

Dr E Lutge
Chairperson, Health Research Committee
Date: 28/01/15.

7.3.3 Letter of support to conduct study at Prince Mshiyeni Gateway clinic

health

Department:
Health
PROVINCE OF KWAZULU-NATAL

PRINCE MSHIYENI MEMORIAL HOSPITAL
SENIOR MEDICAL MANAGER OFFICE
DR. MYINT AUNG
Private Bag X07; Mobeni 4060
Mangosuthu Highway
Tel.:031-907 8317/ 8304
Fax.:031- 906 1044
Email.:myint.aung@kznhealth.gov.za
www.kznhealth.gov.za

Enquiry: Dr M AUNG
Ref No: 01/RESH/2105
Date: 24/02/2015

TO: Mr. Mpumelelo Nyalela

RE: LETTER OF SUPPORT TO CONDUCT RESEARCH AT PMMH

Dear Sir;

I have pleasure to inform you that PMMH has considered your application to conduct research on **"Factors associated with health seeking behavior in men presenting with STI:"** in our institution.

Please note the following:

1. Please ensure that you adhere to all the policies, procedures, protocols and guidelines of the Department of Health with regards to this research.
2. This research will only commence once this office has received confirmation from the Provincial Health Research Committee in the KZN Department of Health.
3. Please ensure this office is informed before you commence your research.
4. The institution will not provide any resources for this research.
5. You will be expected to provide feedback on you finding to the institution.

Should the following requirements be fulfilled, a Permission/ Approval letter will follow.

- Full research protocol, including questionnaires and consent forms if applicable.
- Ethical approval from a recognized Ethic committee in South Africa

Thank you.

Dr. M Aung
Senior Manager: Medical & Consultant in Family Medicine
MBBS(Rgn), PGDip in HIV (Natal), DO(SA)
M.Med.Fam.Med (Natal)

7.3.4 Letter of approval to conduct study at Prince Mshiyeni Gateway clinic

health

Department:
Health
PROVINCE OF KWAZULU-NATAL

Health Research & Knowledge Management sub-component
10 – 103 Natalia Building, 330 Langalibalele Street
Private Bag x9051
Pietermaritzburg
3200
Tel.: 033 – 3953189
Fax.: 033 – 394 3782
Email.: hrkm@kznhealth.gov.za
www.kznhealth.gov.za

Reference : HRKM012/15
NHRD Ref: KZ_2015RP34_623
Enquiries: Ms G Khumalo
Telephone : 033 – 395 3189

Dear Mr M Nyalela

Subject: Approval of a Research Proposal

1. The research proposal titled **'Factors associated with Health Seeking Behaviour in men presenting with Sexually Transmitted Infections at Prince Mshiyeni Gateway clinic and KwaMashu Poly STI clinic in 2014'** was reviewed by the KwaZulu-Natal Department of Health (KZN-DoH).

The proposal is hereby **approved** for research to be undertaken at Prince Mshiyeni Gateway clinic.

2. You are requested to take note of the following:
   a. Make the necessary arrangement with the identified facility before commencing with your research project.
   b. Provide an interim progress report and final report (electronic and hard copies) when your research is complete.

3. Your final report must be posted to **HEALTH RESEARCH AND KNOWLEDGE MANAGEMENT, 10-102, PRIVATE BAG X9051, PIETERMARITZBURG, 3200** and e-mail an electronic copy to hrkm@kznhealth.gov.za

For any additional information please contact Ms G Khumalo on 033-395 3189.

Yours Sincerely

Dr E Lutge
Chairperson, Health Research Committee
Date: 03/02/15

7.4 Ethics' course certificate

TRREE

Zertifikat
Certificat
Certificado
Certificate

Promouvoir les plus hauts standards éthiques dans la protection des participants à la recherche biomèdicale
Promoting the highest ethical standards in the protection of biomedical research participants

Certificat de formation - Training Certificate

Ce document atteste que - this document certifies that

mpumelelo nyalela

a complété avec succès - has successfully completed

Module 1

du programme de formation TRREE en évaluation éthique de la recherche
of the TRREE training programme in research ethics evaluation

February 18, 2014
CID : xGwOUYRlNw

Professeur Dominique Sprumont
Coordinateur TRREE Coordinator

FMH Continuing Education Program (5 Credits) Programme de Formation continue (5 Crédits)

FPH Continuing Education Programme Programmes de formation continue

Ce programme est soutenu par - This program is supported by :
European and Developing Countries Clinical Trials Partnership (EDCTP) (www.edctp.org) - Swiss National Science Foundation (www.snf.ch) - Canadian Institutes of Health Research (http://www.cihr-irsc.gc.ca/e/2891.html) - Swiss Academy of Medical Science (SAMS/ASSM/SAMW) (www.samw.ch) - Commission for Research Partnerships with Developing Countries (www.kfpe.ch)

[REV : 20120817]

Zertifikat

Certificat

Certificado

Certificate

TRREE

Promouvoir les plus hauts standards éthiques dans la protection des participants à la recherche biomédicale
Promoting the highest ethical standards in the protection of biomedical research participants

Certificat de formation - Training Certificate

Ce document atteste que - this document certifies that

mpumelelo nyalela

a complété avec succès - has successfully completed

Module 2

du programme de formation TRREE en évaluation éthique de la recherche
of the TRREE training programme in research ethics evaluation

February 19, 2014
CID : OLVwRSYPud

Professeur Dominique Sprumont
Coordinateur TRREE Coordinator

FMH Continuing Education Program (5 Credits)
Programme de Formation continue (5 Crédits)

FPH Continuing Education Programms
Programmes de formation continue

Ce programme est soutenu par - This program is supported by :
European and Developing Countries Clinical Trials Partnership (EDCTP) (www.edctp.org) - Swiss National Science Foundation (www.snf.ch) - Canadian Institutes of Health Research (http://www.cihr-irsc.gc.ca/e/2891.html) - Swiss Academy of Medical Science (SAMS/ASSM/SAMW) (www.samw.ch) - Commission for Research Partnerships with Developing Countries (www.kfpe.ch)

[REV : 20120817]

TRREE

Zertifikat Certificat Certificado Certificate

Promouvoir les plus hauts standards éthiques dans la protection des participants à la recherche biomédicale
Promoting the highest ethical standards in the protection of biomedical research participants

Certificat de formation - Training Certificate

Ce document atteste que - this document certifies that

mpumelelo nyalela

a complété avec succès - has successfully completed

Module 3.1

du programme de formation TRREE en évaluation éthique de la recherche
of the TRREE training programme in research ethics evaluation

February 19, 2014
CID : TV7sR6YfIm

Professeur Dominique Sprumont
Coordinateur TRREE Coordinator

FMH Continuing Education Program (5 Credits)
Programme de Formation continue (5 Crédits)

FPH Continuing Education Programms
Programmes de formation continue

Ce programme est soutenu par - This program is supported by :
European and Developing Countries Clinical Trials Partnership (EDCTP) (www.edctp.org) - Swiss National Science Foundation (www.snf.ch) - Canadian Institutes of Health Research (http://www.cihr-irsc.gc.ca/e/2891.h
Swiss Academy of Medical Science (SAMS/ASSM/SAMW) (www.samw.ch) - Commission for Research Partnerships with Developing Countries (www.kfpe.ch)

[REV : 20120817]

TRREE

Zertifikat
Certificat
Certificado
Certificate

Promouvoir les plus hauts standards éthiques dans la protection des participants à la recherche biomédicale
Promoting the highest ethical standards in the protection of biomedical research participants

Certificat de formation - Training Certificate

Ce document atteste que - this document certifies that

mpumelelo nyalela

a complété avec succès - has successfully completed

GCP Module 3.2

du programme de formation TRREE en évaluation éthique de la recherche
of the TRREE training programme in research ethics evaluation

February 23rd, 2014
CID : sgUdTfnshp

Professeur Dominique Sprumont
Coordinateur TRREE Coordinator

FMH Continuing Education Program / Programme de Formation continue

FPH Continuing Education Programms / Programmes de formation continue

GCP training program for investigator recognized by Swissmedic / Programme de formation GCP pour investigateur reconnu par Swissmedic

Ce programme est soutenu par - This program is supported by :

European and Developing Countries Clinical Trials Partnership (EDCTP) (www.edctp.org) - Swiss National Science Foundation (www.snf.ch) - Canadian Institutes of Health Research (http://www.cihr-irsc.gc.ca/e/2801.html) - Swiss Academy of Medical Science (SAMS/ASSM/SAMW) (www.samw.ch) - Commission for Research Partnerships with Developing Countries (www.kfpe.ch) - Université de Neuchâtel (www.unine.ch)

[REV : 2013-04-30]

7.5 Turnitin Report

Turnitin Originality Report
Thesis submission MPH by Mpumelelo Nyalela
From Thesis submission (MPH thesis)

- Processed on 21-Dec-2015 11:05 AM CAT
- ID: 617245031
- Word Count: 20897

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sources:

1

2% match (student papers from 16-Mar-2010)
Submitted to University of KwaZulu-Natal on 2010-03-16

2

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http://www.sajei.co.za/index.php/SAJEI/article/download/392/666

3

< 1% match (publications)
Langeni, Tabitha. "Contextual factors associated with treatment-seeking and higher-risk sexual behaviour in Botswana among men with symptoms of sexually transmitted infections", African Journal of AIDS Research, 2007.

4

< 1% match (Internet from 04-Sep-2010)
http://www.britannica.com/bps/additionalcontent/18/34739109/Contextual-factors-associated-with-treatmentseeking-and-higherrisk-sexual-behaviour-in-Botswana-among-men-with-symptoms-of-sexually-transmitted-infections

5

< 1% match (publications)
Meyer-Weitz, A.. "Health care seeking behaviour of patients with sexually transmitted diseases: determinants of delay behaviour", Patient Education and Counseling, 200010/11

6

< 1% match (Internet from 23-Feb-2014)
http://siteresources.worldbank.org/INTPRH/Resources/STINoteFINAL26Feb08.pdf

7